Personnel Time Management (PT)

HELP.PT

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Personnel Time Management (PT)

Purpose

The *Personnel Time Management* component offers you support in performing all human resources processes involving the planning, recording, and valuation of employees' work performed and absence times.

Implementation Considerations

You can select the scope of functions individually within Personnel Time Management. It encompasses:

- Simple administration of leave and illness times
- Planning of workforce requirements
- Valuation of attendance and absence times for the management of time accounts and determination of overtime and bonus wage types.
- Processing of incentive wage data (for example, piecework wage).

Personnel Time Management supports online data entry, time recording systems, and other self-service applications. All data is processed in the same way, regardless of the data entry method.

Personnel Time Management supports centralized data entry by time data administrators, decentralized data entry by production supervisors, for example, or by employees themselves.

Integration

Required Components

Personnel Time Management is embedded in the basic functions of *Personnel Administration.*

Possible Integration with Other Human Resources Components

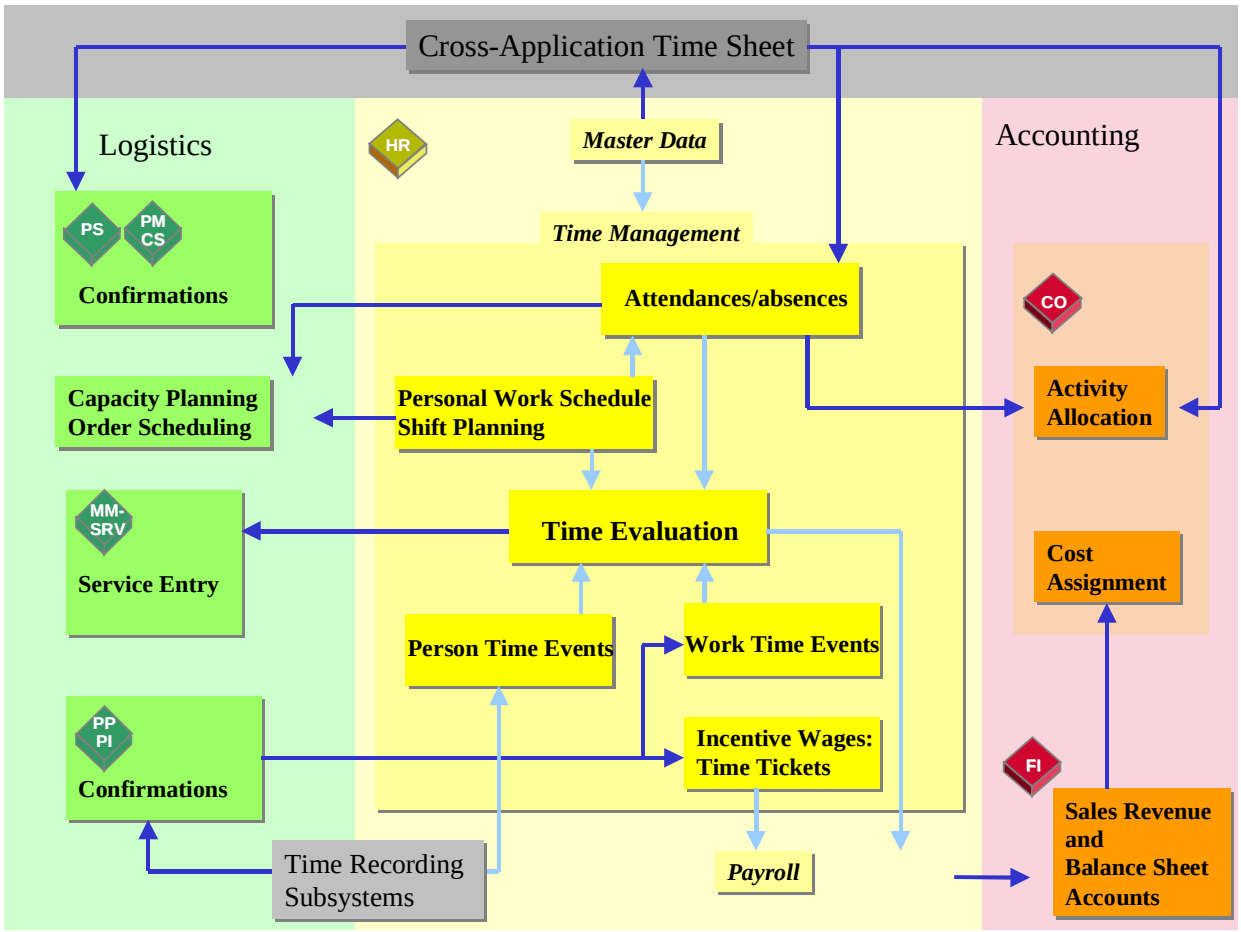
Desired Function	Required Component
Determination of the gross wage	Payroll
Using attendance and absence information (availability) to organize events	Training and Event Management

Possible Integration with Other Components in the R/3 System

Desired Function	Required Component
Allocating work and assigning personnel costs according to the source	Controlling
Using attendance and absence information (availability) for capacity planning and order scheduling	Logistics
Using employee-related confirmations from Logistics in Time Management	Logistics

Personnel Time Management (PT)

Using cross-application employee time recording for internal and external employees in Time Management	Cross-Application Time Sheet
Valuating work performed by external employees, and monitoring them in Purchasing	Materials Management



Features

- Define requirements and employee shifts
- Comply with legal, pay scale, and contractual working time provisions
- Record time data manually supported by the system
- Process data from time recording devices or Employee Self-Service applications
- Evaluate time data and provide bonus and overtime wage types for R/3 Payroll or a third-party payroll system

- Administrate time accounts (for example, flextime balances, leave entitlements, annual working time accounts)
- Record and administrate data for piecework wage or bonus payment
- Generate time tickets automatically, based on postings from Plant Data Collection

Integrating Time Management in Your Enterprise's Organizational Structure

Use

In the Time Management component you can group employee subareas and personnel subareas according to areas of responsibility. Special processing rules can then be defined for these groupings.

This concept allows you to combine several personnel subareas in one grouping so that the same working time provisions apply. This helps to reduce the amount of time involved in entering the work schedule arrangements valid in your company. This concept also allows you to represent special rules for small personnel subareas, employee subgroups, or even individual employees in the SAP System.

Integration

The Time Management component is closely integrated in the organizational structure of your enterprise. When working with Time Management, it is therefore essential that you maintain certain master data infotypes for your employees. One of the most important infotypes is *Organizational Assignment* (0001), which contains data on the organizational units to which the employee is assigned within the enterprise (personnel area, employee subgroup, and so on).

Features

You can use the groupings of employee subgroups and personnel subareas to:

- Define different work schedules
- Assign special rules for availability and substitutions
- Permit only certain attendance and absence types
- Specify special processing rules for time data evaluation and payroll, for example

When your system is customized, working time models are defined for the different groupings and adapted to suit each grouping's special features.

The following employee subgroup and personnel subarea groupings can be used in Time Management:

Employee subgroup grouping	For time quota types
	For work schedules
	For personnel calculation rules

Personnel subarea grouping	For attendance/absence types
	For time quota types
	For work schedules
	For daily work schedules
	For substitution and availability types

	For attendance/absence counting
	For time recording
	For premiums

Employee groupings for time evaluation	For time wage type selection
	For time type determination
	For dynamic daily work schedule assignment
	For checking value limits
	For automatic absence quota accrual
Time Management-related employee groupings for Payroll	For absence valuation

If you encounter frequent error messages, this may be due to the fact that the organizational structures stored in the system are not being taken into account. For example, it is not possible to assign a work schedule to an employee in a particular personnel subarea if the work schedule has not been defined for this personnel subarea.

Time Structures

Use

To represent and process the time structures in your company, the SAP System requires the following essential pieces of information:

1. **Which times and working patterns employees have to work**

   You can store information on working times and patterns in work schedules. A work schedule describes the planned duration of working time and the working time pattern for a specific calendar period. The different elements of the work schedule permit flexibility when entering working time models and working times. When you customize the system, you can define a number of working time variants for different regional public holiday calendars and employee subgroup and personnel subarea groupings.

2. **Which weekdays and public holidays employees have to work: Reference to the public holiday calendar**

   The public holiday calendar is based on an actual year and allows you to apply your working time models to a specific time period.

   It is essential to use the public holiday calendar for recording your employees' attendances and absences: the payroll program can only be run correctly if Sundays and public holidays and so on are taken into account.

   The public holiday calendar is created on the basis of the regional and national holidays that are valid for your personnel areas and subareas. Company-specific days off can also be entered in the calendar.

3. **Which work schedule deviations are recorded and how they are processed**

   You can represent the time structures in your company using working time models, the calendar, and by maintaining the Time Management infotypes [Ext.]. These options allow you to enter all time data and related information for your employees. This time data includes attendance and absence times, availability times, and overtime, for example.

   The following are only a few of the possible Customizing options which allow you to control the entry and processing of time data in your system:

- In addition to the common ***absence types*** such as leave and illness, you can enter special absence types such as additional leave for severely challenged persons, time off for overtime, and maternity leave. The system also provides special infotypes for entry of absences that may require further processing - absence as the result of an industrial accident, for example.
- You can define specific plausibility checks for the ***entry of attendances and absences***. In this way, you can specify that only female employees are entitled to maternity protection, and that only severely challenged employees are entitled to additional leave for severely challenged persons, for instance.
  Furthermore, you can specify the actual times, weekdays, Sundays, and public holidays on which particular absences and attendances are permitted.
- ***Quotas*** can be assigned to employees for particular attendances and absences. The quotas are maintained automatically in the system. The most common of these is the leave quota, in which you can store the number of days of leave to which an employee is entitled.

The system itself can also set up ***absence quotas***. This is the case with, for example, automatic leave accrual, flextime models and time off for overtime.

Attendance quotas enable you to control the amount of overtime employees can work, and also when they are permitted to work overtime.

- Time constraints are used in Time Management to prevent undesired overlapping or ***collision*** of attendances and/or absences.
- You can define how long an employee is entitled to a particular attendance or absence type, whether the employee is to be paid for the attendance/absence, and the rate and duration of payment.
- You can set indicators that are processed individually when time data is evaluated in Payroll. These allow you to define how employees are to be remunerated for working on days off or public holidays, for example.

Work Schedule (PT-WS)

Purpose

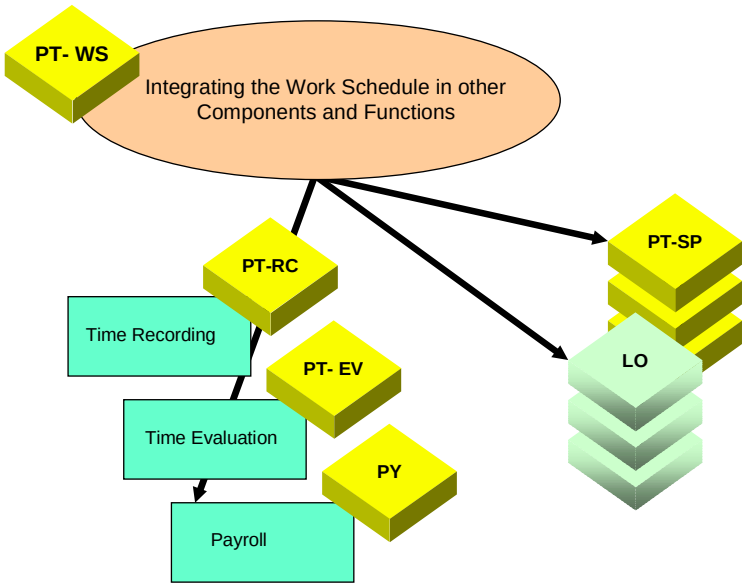
You store working and break times for groups of employees in this component. This then allows to you to structure working times for your enterprise. You can define work schedules with flextime models or rotating shifts for particular organizational units. You can also set up the legislative regulations, collective agreements and internal company policies that stipulate employee working time in your system.

Implementation Considerations

The *Work Schedule* is an essential element of Human Resources. Human Resources data is an extension of information entered in a *work schedule*. The *Work Schedule* component optimizes *SAP Human Resources* and saves the user valuable time when defining the working time model for your enterprise.

The work schedule is the information medium for all employees who work on time-based schedules. It also contains a detailed overview of all working times. In addition to setting up working times and break times, you can use the work schedule for scheduling and monitoring the organization and coordination of all divisions in your enterprise.

Integration



Possible Integration with Other Human Resources Components

Desired Function	Required Component

Determining attendance/absence times of an employee for whole-day attendance/absence.	*Time Data Recording* (PT-RC)
Evaluating employee working times	*Time Evaluation* (PT-EV)
Running the Payroll for an Employee	*Payroll* (PY)
Planning and recording working times	Shift Planning (PT-SP)

Possible Integration with Other SAP Components

Desired Function	Required Component
Determining employee availability for capacity planning and distribution of requirements	Logistics

Features

Work schedules are based on a number of elements that can be used separately, or be combined to define working times and break times for the employees in your enterprise. Thus, you can define these elements in a variety of ways, depending on individual business requirements. This “pool” of elements enables you to set up new versions of work schedules by combining the elements in a variety of ways. You can then react to new working time provisions and other such regulations without wasting valuable time and costs.

In a *work schedule*, you can:

- Determine working and break times
- Assign different public holiday calendars to different organizational units in your enterprise
- Create work situations for your enterprise

  such as different shift models for different places of work, or different public holiday calendars for subsidiaries of your enterprise that are based in another area.
- Define public holidays

  In this way, for example, you can distinguish between public holidays when payment demands occur. You can define, for example, that if employees work on a Christmas public holiday, the remuneration should be greater than if they work on any other public holiday. Similarly, you can also define that only employees of a specific religious denomination should be granted the relevant religious public holidays.

You do not have to define working times and break times for each employee individually; you can simply assign the separate elements of the work schedule to *employee subgroup groupings* and *personnel subarea groupings*. Work schedules become personal work schedules only when the employee is actually assigned to an employee subgroup or personnel subarea.

In this way, you get the most flexibility when designing your working time models and simultaneously save valuable time that would have been spent on data entry, as well as reducing related processing costs.

A break schedule can be assigned to several different daily work schedules, and thus only needs to be defined once. By assigning a break schedule to several daily work schedules, you are actually creating a number of different work schedules.

Work Schedule Elements

Definition

A work schedule consists of several different elements that can be combined much like building blocks in a variety of ways to form a complete work schedule. These elements can still be processed individually, offering flexibility and precision when you define and set up the time data relevant for your business requirements. Furthermore, you can react to changes in internal and external working time provisions, such as new collective agreements, payscale changes and legislative regulations with minimal expenditure of time and costs. You only have to modify the applicable element to reflect the new time provisions, and changes are automatically made to working time in the work schedule.

Use

The following elements are available and allow you to do the following:

1. Daily Work Schedules [Page 33] are the smallest units of the work schedule. Daily work schedules contain the authorized working times and break times for a particular day. These times include fixed working times, flextime, as well as daily work schedules for days off.
   See also Break Schedules [Page 34].
2. Each working time model contains a combination of both working days and days off (for example, Monday to Friday = work; Saturday and Sunday = days off). This pattern of working and non-working days repeats itself within a certain period of time (one week, for example), or repeats as rotating shifts within a particular number of weeks.
   This sequence of daily work schedules for particular working days and daily work schedules for days off is determined in the Period Work Schedules [Page 36].
3. A period work schedule is assigned to employee in a Work Schedule Rule [Page 37]. It is also assigned to a public holiday calendar so that it can be applied to a specific calendar month.
4. Work Schedules [Page 40] are generated from the system by applying the work schedule rule to a calendar. The working times defined for employee groupings and individual employees are based on these work schedules.
5. Personal Work Schedules [Page 39] are created for each employee when you include individual time data in a work schedule meant for several employees in the time infotypes *Absences* (2001), *Attendances* (2002), *Substitutions* (2003) and so on.

Daily Work Schedule	
Start and End of Working Time	8:00 a.m. to 5:00 p.m.
Break Times	Breaks: 9:45 a.m. to 10:00 a.m. and 12:00 to 1:00 p.m.
Planned Hours	7.5 hours per day

Work Schedule Elements

Daily Work Schedule (for days off) **Planned Hours**	Day Off 0.0 hours per day
Period Work Schedules **Flextime, Saturday and Sunday Off**	Daily work schedules for one week MO TU WE TH FR SA SU FLEX FLEX FLEX FLEX FLEX OFF OFF
Work Schedule	Period work schedule based on the public holiday calendar
Personal Work Schedules	Work schedules for individual employees include data from *Absences* (2001*), Attendances* (2002*) and Substitutions* (2003).

For more information, see the **Work Schedules** section of the Implementation Guide (IMG) for *Personnel Time Management*.

Personnel Subarea Groupings

Use

Scheduling working times for each area of your enterprise is a time-intensive process. You can reduce time and cost expenditure when scheduling working times by grouping together organizational units that require the same work schedules.

You set up your desired work schedules in the Customizing steps in the **Work Schedules** section of the Implementation Guide (IMG) for *Personnel Time Management*. To create work schedules, set up the following groupings:

- Organizational units where employees have the same working times. Here you create personnel groups and personnel subgroups. This enables you to group together divisions or plans that work according to the same regional or local working time provisions. Any type of legal change, such as a new working time provision stipulating that only 4 hours may be worked on Sundays, can be carried out in one step at one time for all elements of this group.
- **Employee subgroups** — members of group work according to the same working times. Here you create employee subgroup groupings such as hourly wage earners, salaried employees, trainees, and so on. This enables you to group together employees who work according to the same work schedule rules, such as flextime, 3-shift operations, and so on. Even working time provisions in collective agreements, such as employees having a shift off after a night shift, can be carried out at one time for all elements of this group.

Your enterprise consists of several organizational units, which are located in different cities. The personnel area **Pharmacy** is divided into the following personnel subareas:

- City A (0001)
- City B (0002)
- City C (0003)

The personnel subareas A and C have the same work schedule; personnel subarea B has its own work schedule. In addition, the personnel subareas A and C work 40 hours per week; personnel subarea B works only 35 hours per week. Create the following groupings:

Personnel Subarea Groupings (PSG) for Work Schedules (WS)

0001 City A	→	Grpg PSG for DWS	02
0002 City B	→	Grpg PSG for DWS	01
0003 City C	→	Grpg PSG for DWS	02

You define two work schedules as flextime models, one for 40 hours per week, the other for 35 hours per week. Assign flextime with 40 hours per week to the personnel subarea grouping for daily work schedule 02 (Grpg PSG for DWS) and the flextime with 35 hours a weeks to the personnel subarea grouping for daily work schedule 01 (Gprg PSG for DWS).

Personnel Subarea Grouping for Daily Work Schedules

Use

By grouping personnel subareas together, you can define the same Daily Work Schedules [Page 33] for separate groupings.

You can combine one or more personnel subarea groupings for work schedules to form a personnel subarea grouping for daily work schedules.

Personnel Subarea Grouping for Daily Work Schedules 01

- Personnel subarea groupings for work schedules 01
- Personnel subarea groupings for work schedules 02
- Personnel subarea groupings for work schedules 03

Personnel Subarea Grouping for Daily Work Schedules 02

- Personnel subarea groupings for work schedules 04
- Personnel subarea groupings for work schedules 05
- Personnel subarea groupings for work schedules 06

Personnel Subarea Grouping for Work Schedules

Use

By grouping personnel subareas together, you can define the same Work Schedule Rules [Page 37] for separate groupings.

You can combine one or more personnel subarea groupings for work schedules to form a personnel subarea grouping for daily work schedules.

Personnel Subarea Grouping for Daily Work Schedules 01

- Personnel subarea groupings for work schedules 01
- Personnel subarea groupings for work schedules 02
- Personnel subarea groupings for work schedules 03

Personnel Subarea Grouping for Daily Work Schedules

- Personnel subarea groupings for work schedules 04
- Personnel subarea groupings for work schedules 05
- Personnel subarea groupings for work schedules 06

Employee Subgroup Grouping for Work Schedules

Use

An employee subgroup grouping for work schedules is a classification of employee subgroups with the same work schedule rules and attendance/absence counting rules.

- Hourly-wage earners
- Salaried employees

Daily Work Schedule

Definition

The daily work schedule determines the structure of working times in your enterprise at the daily level. You can also define actual normal working conditions and those that differ from externally or internally determined daily working times. In this way, you set up working times defined for specific employees.

The planned working time specified in a daily work schedule is the basis for payment calculation of actual working times that are relevant for payroll, as well as the valuation of attendances and absences.

The daily work schedule, along with Break Schedules [Page 34], comprise the working times for a particular day. You can base the daily work schedule on such working time models as **flextime** by defining the following:

- Core times
- Tolerances
- Compensation times

Use

You can create various working time models and assign them to many employees using just one daily work schedule, thus reducing unnecessary time and cost. Here are several ways of using just one daily work schedule:

- You can also use one daily work schedule to represent working time provisions for different personnel subarea groupings. This is useful if different public holiday calendars are assigned to the individual personnel subareas, but start/end times and breaks are the same.
- You can specify additional data that differs from working time models in a daily work schedule variant. In this way, you can define working time provisions for public holidays, for example, in the daily work schedule. Depending on the assigned public holiday class, you can define working time provisions for days that precede Christmas and New Year's Day. You can also use the rule group for quota deduction to specify how the system should evaluate leave taken on days with reduced working hours (that is, if working 4 hours on these days equals a half day or full day). For more information, see Personnel Subarea Groupings [Page 29].

  You can create several variants of the same daily work schedule. Thus, you can define daily work schedules to apply only on Fridays, when employees work fewer hours than on other weekdays.

  You can assign a break schedule to the daily work schedule that was either specifically defined in a previous step or was copied from a break schedule already defined.

Break Schedules

Definition

You define the break rules in the work schedule for any particular working day and assign them to a *personnel subarea grouping for work schedules*. This grouping enables you to assign a break schedule to as many of the grouping's daily work schedules as you want, achieving maximum flexibility in combining all elements of the daily work schedule.

The following three types of break schedules are available:

- **Fixed Breaks**

  Breaks are defined for a certain time period and can only be used by employees during this period of time.

  Breakfast break — 9:00 a.m. to 9:15 a.m.

  Lunch break — 12:00 noon to 1:00 p.m.

  Coffee break — 15:30 to 15:45

- **Variable Breaks**

  Breaks are taken during a specific time interval. Employees themselves determine the start and end of the break taken within this time interval.

  Employees are entitled to a 45-minute break any time between 12:00 noon to 2:00 p.m.

- **Dynamic Breaks**

  Breaks taken after working a certain number of hours.

  Employees are entitled to the following breaks:

  Half-hour break after working 3 hours

  One-hour break after working 5 hours

Use

You can define different rules for payment for each break individually, for example, whether or not employees are paid for breaks, and the rate of payment.
There are three possible variations of paid or unpaid breaks:

1. Paid break
2. Unpaid break
3. Only part of the break is paid

For example, only ten minutes of a half-hour break are paid.

Period Work Schedules

Definition

The period work schedule consists of a defined sequence of daily work schedules. The period work schedule reflects a work pattern that is repeated after a defined period of time. You can create the period work schedule in the following ways:

- On a daily basis
- On a weekly basis
- On a monthly basis
- On an annual basis

Use

You can create the period work schedule for any length of time: The period work schedule can provide the working time model for one week, as do flextime models, or for an entire year. Period work schedules can also be created for longer term working models, such as those that cover the entire year. The ***week number*** distinguishes between the individual elements of a period.

Period Work Schedule *WECHS 3* **for a Rotating Shift**

Week Number 001

Mo	Tu	We	Th	Fr	Sa	Su
Early	Early	Early	Early	Early	Off	Off

Week Number 002

Mo	Tu	We	Th	Fr	Sa	Su
Late	Late	Late	Late	Late	Off	Off

Week Number 003

Mo	Tu	We	Th	Fr	Sa	Su
Night	Night	Night	Night	Night	Off	Off

Period work schedules are also defined depending on the personnel subarea grouping. In this way you can limit the number of period work schedules to be created. You can specify on which day the system applies the period work schedule to a public holiday calendar.

Work Schedule Rule

Definition

You specify in the work schedule rule which period work schedule is to be used when and on which day of the period for the work schedule to be generated. Examples of *Work Schedule Rules*:

- Flextime
- Early, late or night shifts
- Flexible working time
- and so on

The period work schedule is assigned to the work schedule rule. The pattern of the daily work schedules is specified in the period work schedule. The period work schedule is then assigned to the desired *personnel subarea grouping for daily work schedules*. In this way, the work schedule rule defines:

- Personnel subarea or employee subgroup groupings for which the same work schedule rule applies
- Employee working times by selecting specific daily work schedules
- Periods in the daily work schedules which repeat by selecting a specific period work schedule

For more information, see the section on *Work Schedules*.

Use

The work schedule rule is extremely flexible:

- You can generate a variety of different work schedule rules from one period work schedule:
  - A single period work schedule forms the basis for three work schedule rules for a rotating shift with three variants. You can distinguish early, late and night shifts according to their different starting points for the period work schedule.
  - You can use one period work schedule for any number of public holiday calendars. When the system generates the work schedule, it takes account of the public holiday calendar stored in the work schedule rule.
  - A Personnel Subarea Grouping for Work Schedules [Page 31] is assigned to a work schedule rule. In this way, you can use one period work schedule for many groupings.
- You can define various rules for working on public holidays in the work schedule rule by defining special rules for the applicable employee subgroups. For more information on selection rules for day types, see the *Defining Selection Rules* step in the Implementation Guide (IMG).
- You first define your employees' *average* working times in the work schedule rule. This data can be used for payroll and other purposes.

Work Schedule Rule

Using average working times provides a balanced valuation of leave times. They allow you to valuate a leave day falling on a Friday, for example, exactly as you would any other day of the workweek.

Personal Work Schedules

Definition

The personal work schedule represents the lowest level of work schedules. It contains the work schedule of one individual employee.

Use

You can refer to the personal work schedule for the working times of a specific employee, as well as any working time provisions that apply on a particular day. The personal work schedule also contains any changes made for individual employees from when maintaining infotypes, in addition to any changes made for entire employee subgroup or personnel area groupings.

See also: Displaying Personal Work Schedules [Page 47].

Importance of Work Schedules in *SAP Time Management*

Purpose

The definition of an individual employee's planned working time is essential in *SAP Time Management*. Planned working time is created in the *Human Resources* (HR) component using a work schedule that is based on Period Work Schedules [Page 36]. The period work schedule, in turn, is based on a fixed pattern of Daily Work Schedules [Page 33], with Break Schedules [Page 34] assigned to each daily work schedule.

Process Flow

You create a work schedule by putting the period work schedule on a horizontal axis, as if it were a calendar. By including Public Holiday Calendars [Page 48], you ensure that the system recognizes certain days as public holidays.

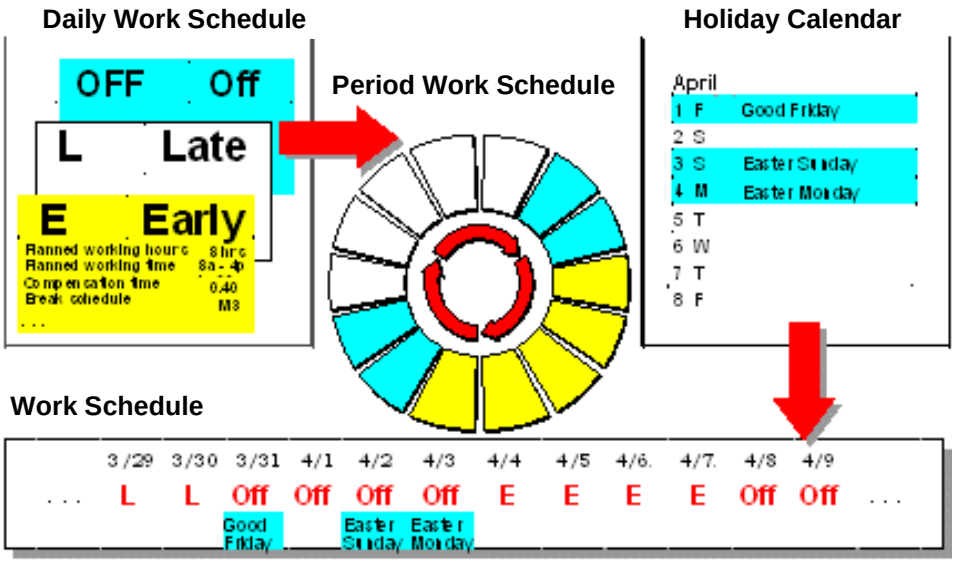
Result

In this way, special wage types (bonuses) can be generated automatically for work performed on public holidays.

By applying the period work schedule to the public holiday calendar, you can manually manipulate it so that deviations are reflected in the regular schedule. Recurring deviations to the work schedule are automatically taken into account if you set up a daily work schedule variant in the system.

The diagram below shows how the basic elements of the work schedule interact:

Work Schedule



Work schedules are defined for several employees. You do not have to create a separate work schedule for each individual employee. Simply assign a pre-defined work schedule to each employee.

You can use a work schedule on two different levels of an organizational structure. It can be generated for work schedules in individual ***employee subgroup groupings***, as well as for schedules in ***personnel subarea groupings***.

Displaying Overviews of Work Schedules

Procedure

1. Choose *Human resources* → *Time Management* → *Administration* → *Work schedule* → *Display.*

   The *Display Work Schedule* screen appears.

2. Define the work schedule by entering the following data:
   - Employee subgroup grouping
   - Public holiday calendar
   - Personnel subarea grouping
   - Work schedule rules
3. Enter the month and year for the work schedule.
4. Choose *Display*.

Result

The system displays an overview of the work schedule you specified.

From the overview screen, you can display any individual work schedule by selecting *Choose*.

Maintaining Work Schedules

Note:

- While you are creating, maintaining or deleting data records, the system may display a time constraint warning or an error message. For more information, refer to the Time Constraints in SAP Time Management [Page 238] section.
- Based on the settings made in the Implementation Guide (IMG), an employee must have enough leave time accumulated for a leave time record to be recorded. If the employee does not have enough leave time, the system issues a warning or error messages, and the record can not be saved.
- As the work schedule forms the basis for all calculations, you must avoid creating a duplicate version of an existing work schedule. Absences and overtime will be recalculated when a work schedule change occurs. You may also have to carry out retroactive accounting in payroll.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Change.*

   The *Change Work Schedule* screen appears.

2. Define the work schedule you want to change by entering the following data:
   - Employee subgroup grouping
   - Public holiday calendars
   - Personnel subarea grouping
   - Work schedule rules
3. Enter the time period for which you want to change data. Contact your system administrator if you have any questions regarding the applicable format for this entry.
4. Then select *Change* to enter edit mode.

   The system displays the work schedule data for the selected grouping in edit mode. Now you can change the data. The following four fields can be maintained for each day:
   - Public holiday class (only displayed if the day is a public holiday)
   - Day types [Ext.]
   - Daily work schedules
   - Daily work schedule variants [Ext.]
5. Maintain the work schedule as follows:
   - **Monthly Level**
   - Select a daily work schedule by clicking on the desired day.
   - Change the data for each day by overwriting the daily work schedule, day type, or other fields, as necessary.

Maintaining Work Schedules

- **Weekly Level**
  - Select a weekly work schedule by clicking on the desired week.
  - Now you can change the data.
- **Daily Level**

  The system displays the entire daily work schedule. You can not maintain data using this option. To access another day's work schedule, enter the desired date.
  - Select a weekly work schedule by clicking on the desired week.
  - Now you can change the data.

For more information, see Navigating Between Levels in the Work Schedule [Page 46].

The public holiday class can only be maintained for days that are already defined as public holidays in the system.

Displaying Work Schedules

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Display.*

   The *Display Work Schedule* screen appears.

2. Define the work schedule you want to display by entering the following data:

   a) Employee subgroup grouping

   b) Public holiday calendars

   c) Personnel subarea grouping

   d) Work schedule rules

   e) Time period (for displaying the work schedule)

3. Choose *Display*.

   The work schedule data for the specified selection criteria appears in display mode. Each day contains the following four fields (they can not be maintained in this mode):

   a) Day types [Ext.]

   b) Daily work schedules

   c) Daily work schedule variants [Ext.]

   d) Public holiday class (only displayed if the day is a public holiday)

   You can also jump to any individual work schedule by positioning the cursor on the relevant line, and selecting *Choose*.

Result

The work schedule is displayed.

Navigating Between Levels in the Work Schedule

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedules* → *Create/Change/Display.*
2. Enter the selection criteria for the desired work schedule.
3. Choose *Edit* → *Create/Change/Display*.
   The monthly level of the work schedule automatically appears. You can, however, easily navigate between the monthly, weekly or daily levels. You can also display work schedules for months other than the one you selected in the initial selection screen.
4. To navigate between various levels of the work schedule:

   Monthly Level to the **Weekly Level**:

   i) Select the number of the desired week.

   ii) Choose *Edit* → *Choose*.

   Monthly Level to the **Daily Level**:

   i) Select the number of the desired day.

   ii) Choose *Edit* → *Choose*.

   To move around the **same level**:

   i) Choose *Goto* → *Next month/Previous month*.

   The system then displays the work schedules for the subsequent or previous months.

   To return to the **next highest level**:

   i) Choose *Goto* → *Back*.

   To return to the **work schedule selection screen**:

   i) Choose *Edit* → *Cancel*.

Result

The desired work schedule view is displayed.

Displaying Personal Work Schedules

Use

The personal work schedule displays an employee's individual work schedule in detail.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Display.*

   The *Display Time Data* screen appears.

2. Enter the employee's personnel number.
3. Choose *Monthly calendar*.
4. Enter the start and end dates for the desired validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.

5. To return to the monthly calendar, choose *Change*.

   The monthly calendar for the specified employee and the chosen period appears.

6. Select the day for which you want to view the personal work schedule.
7. Then choose *Personal work schedule.*

Result

The system displays the personal work schedule for the specified employee and the chosen day.

To display a list of an employee's work schedules for an entire month, follow steps 1-5 above, then select any field on the monthly calendar (except for fields assigned to one specific day) and then choose:

Environment → *Personal work schedule*.

Result

The system displays the employee's personal work schedules for the entire month.

Public Holiday Calendars

Purpose

The public holiday calendar is used in numerous SAP applications, and also plays an important role in the *Human Resources* (HR) component. The public holiday calendar

- Affects the definition of the organizational structure of your enterprise
- Plays a central role in the scheduling process as well in generating monthly work schedules
- Is important for Payroll

You can display or make any required changes to the public holiday calendar at any time.

Public holiday calendars are used in many different areas within your enterprise. Therefore, contact your system administrator before making any changes to the active public holiday calendar!

Creating Public Holiday Calendars

Procedure

Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*

1. Select *Holiday calendar* and then choose *Change*.

   The system displays all existing public holiday calendars.

2. Choose *Insert*.

3. Enter both a two-character abbreviation and a name (long text) for your public holiday calendar.

   This data is referred to as the *Public holiday calendar key*.

4. Enter a valid period.

   The system generates a public holiday calendar for each year of the valid period.

5. Assign your public holidays.

   For more information, see the Assigning Holidays to Public Holiday Calendars [Page 50] section.

6. Save your entries.

Result

A new public holiday calendar is created.

Assigning Holidays to Public Holiday Calendars

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*
2. Select *Holiday calendar* and then choose *Change*.

   The system displays all existing public holiday calendars.
3. Select the public holiday calendar to which you want to assign a public holiday and then choose *Change*.

   A list of public holidays currently assigned to the selected public holiday calendar appears.
4. Choose *Assign public holiday*.

   A list of all public holidays defined in the system appears in an additional screen.
5. Select the holiday you want to add to the public holiday calendar.
6. Choose *Assign public holiday*.

Result

The public holiday calendar now includes the holiday you selected.

Deleting Holidays from Public Holiday Calendars

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*
2. Select *Holiday calendar* and then choose *Change*.

   The system displays all existing public holiday calendars.
3. Select the public holiday calendar from which you want to delete a public holiday and then choose *Change*.

   A list of public holidays currently assigned to the selected public holiday calendar appears.
4. Select the holiday you want to remove from the public holiday calendar.
5. Choose *Delete assignment*.

Result

The selected holiday is deleted from the public holiday calendar.

Changing Public Holiday Calendars

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*
2. Select *Holiday calendar* and then choose *Change*.

   The system displays all existing public holiday calendars.
3. Select the public holiday calendar to be changed and then choose *Change*.
4. Make any required changes to the public holiday calendar.

   You can make changes for almost all of the elements of the public holiday calendar. The *public holiday calendar key* is the only exception.
5. Save your changes.

Result

The selected public holiday calendar is now changed.

Deleting Public Holiday Calendars

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*
2. Select *Holiday calendar* and then choose *Change*.

   The system displays all existing public holiday calendars.
3. Select the public holiday calendar to be deleted and then choose *Delete*.

   You can not delete public holiday calendars that are currently in use. Calendars in use are indicated by an **X** in the *Used* column. Calendars in use can not be deleted.
4. To confirm the deletion of all public holiday calendars not in use, choose *Yes*.

Result

The selected public holiday calendar is now deleted.

Displaying Public Holiday Calendars

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Work schedule* → *Holiday calendar*
2. Select *Holiday calendar* and then choose *Display*.
3. Select the public holiday calendar to be displayed.
4. Then, choose one of the following:

   Display definition

   Display calendar

Result

The selected public holiday calendar view is displayed.

Shift Planning (PT-SP)

Purpose

This application component allows you to accurately determine and schedule the appropriate number and type of human resources required for your enterprise to carry out business requirements.

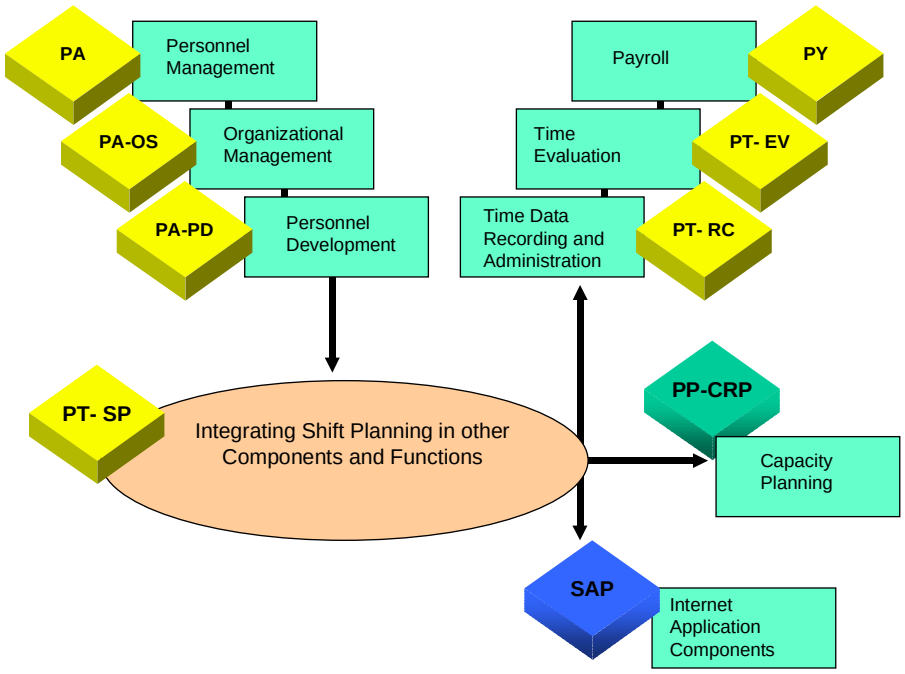
Implementation Considerations

Unlike other types of resource planning for materials, machines and vehicles, human resources planning involves a unique set of requirements. Personnel administrators face problems and issues that are extremely time consuming and cost intensive to deal with without computer support.

The *Shift Planning* component allows you to distribute your human resources quickly and efficiently, and ensures that an enterprise's capacity is used to the full extent. You can assign shift time, shift location, selection and number of required employees so that your personnel capacity is utilized to its maximum effect.

You can schedule and create working hours for your employees in a flexible manner to cover requirements. You can also create time data for any number of employees at the same time, as well as for one or more days, weeks or even months.

Integration



Possible Integration with Other Human Resources Components

Desired Function	Required Component

Access to Organizational Structures	*Organizational Management* (PA)
Access to Employee Qualifications	*Qualifications/Requirements* (PA-PD-QR)
Determining an Employee's Working Hours	*Time Data Recording and Administration* (PT-RC)
Simulated Evaluation of Employee Working Hours during Planning Process	*Time Evaluation* (PT-EV)
Running the Payroll for an Employee	*Payroll* (PY)

Possible Integration with Other SAP Components

Desired Function	Required Component
Determining Employee Availability for Capacity Planning and Distribution of Requirements	*Logistics*
Display and Overview of an Employee's Shift Plan	*Internet Application Components*

Shift Planning is a component of *SAP Time Management*. A permanent exchange of data between the *Human Resources* and *Personnel Management* components ensures that the following data is always available:

- Changes relevant to planning in *Time Data Recording and Administration*
- Changes relevant to planning in *Time Evaluation*
- Changes relevant to accounting in *Shift Planning*

In this way, the probability of planning errors, such as those that occur when manually transferring data, can be minimized. The permanent availability of all current time information allows you to create an optimal shift plan as you take into consideration all personnel and time-related data for the relevant planning period.

Features

The *SAP Shift* Planning component offers a wide variety of user-friendly tools for creating detailed shift plans with a high degree of accuracy, while saving valuable time and costs.

The many functions in *SAP Shift Planning* include:

- Using entry object types to start shift planning, such as an entry object type for an organizational unit. This provides a high level of flexibility when selecting the required employees from the entire personnel capacity of your enterprise
- Detailed definitions of requirements for an accurate determination of required resources
- *Target and Actual Plans* that detail short- and long-term availability, and employee working time
- *Requirements Matchup*, to recognize:
  - If personnel requirements are already covered
  - If employees are already scheduled
  - If employees are still available to cover requirements

  - When to make changes to the shift plan

- *Day View*, to comprehensively display and edit a shift plan one day at a time. This function provides for extremely detailed planning, especially when you are assigning shifts for only part of a day
- Employee preferences taken into account for working times
- Simulated time evaluation, by choosing *Check shift plan*. Thus, working time regulations, for example, can be checked without having to save the shift plans first. You can respond to any irregularities that might occur in the shift plan as you enter data. Simulation provides an overview of whether the work quota of an employee is already fully utilized, and in which areas. In this way, you can react accordingly should a capacity bottleneck occur.

Default Values for Shift Planning

Purpose

You must define the following data before the actual planning process can begin, so as to ensure that the planning phase can be completed efficiently:

- Profile

Specify the human resources (employees) who are to be available in the planning phase. The selection of personnel is based on operational tasks that need to be completed.

- Shift Groups

Define and group all abbreviations used for shifts or daily work schedules used in an enterprise.

- Requirements Types

Create time intervals (such as requirements on working days, Easter Monday, and Mondays) in a calendar, to allow you to define personnel requirements for them.

You use these default values to start shift planning.

Profile

Definition

With a profile, you specify which human resources (employees) are available in *Shift Planning*.

The selection of personnel is based on operational tasks that need to be completed.
First, you must define the evaluation paths by which an employee is selected when using the entry profile.

The evaluation paths determine the organizational units, or links to organizational units, containing the employees you want to select.
Furthermore, you can specify the employees who should be excluded, or those employees assigned elsewhere who can be included in the selection.

Use

When you define profiles, you can use an individual employee and requirement selection to enter Shift Planning.

Employee selection allows you to specify:

- From where employees are to be selected (organizational units, work centers or other objects).
- How the employees are to be selected (evaluation paths).
- Whether or not selected employees can be removed from the selection.
- Whether or not unselected employees can be included in the selection.

Example

You have defined an **X** profile that selects all positions in your enterprise. In *Customizing*, you specify the appropriate evaluation path. You assign organizational units as the entry object type to the **X** profile. When you enter shift planning, the *Organizational units* field appears. Here you can select one or more organizational units from the list of possible entries. The system searches all of the existing positions. The data resulting from the search is automatically entered in the shift plan, and can be used to cover a requirement.

You can select organizational structures and jobs directly from the entry screen in shift planning. Thus, you limit the data assigned to an entry object type, and entered into the shift plan, by using the entry profile.

When you exit shift planning, the system stores the current entry objects, as well as the last period processed. When you next enter shift planning, this data is automatically proposed, and you do not need to select it again.

Shift Plan in Color Design

Definition

In the entry screen, you can select either of the following formats to display the shift plan (including Requirements Matchup).

- Shift plan in classic design
- Shift plan in color design

The shift plans are fundamentally identical, which ensures that all of the functions available *in SAP Shift Planning* are available in either plan.

However, a *shift plan in color design* has a range of additional functions. These are:

- Shift abbreviation bar
- Requirements Matchup in one or two lines
- Splitter

For more information, refer to the documentation provided on *Shift Abbreviations, Requirements Types and General Color and Character Formatting*.

Use

Shift Abbreviation Bar

The shift abbreviation bar allows you to display all shift abbreviations belonging to a shift group in the shift plan. Furthermore, the **Mark & Replace** function allows you to create and edit shifts. To do this, first of all mark the shift abbreviation to be changed or created in the shift plan, and then select the desired shift abbreviation from the ***shift abbreviation bar*** by clicking on it. The selected shift abbreviation will be inserted directly into the corresponding field.
If the field is not ‘ready for input’, or if any resulting changes would make no sense from a business point of view, such as if a *Flextime* shift was replaced by an *Availability*, the relevant abbreviations are not affected by this function.

Requirements Matchup in One or Two Lines

You can display Requirements Matchup in either one or two separate lines. If you display Requirements Matchup in one single line, information on both the target and actual number of employees (number already assigned to this requirements record) is displayed in a field in one line. If you display Requirements Matchup in two lines, however, this data is displayed in two separate lines.

Splitter

A **splitter** allows you to define individual sizes for shift plans and Requirements Matchup. The system saves your settings, which are then available to you the next time you access the shift plan.

Current Settings

Use

With this function you define the data and information in the IMG for *Shift Planning* that must be defined before using this component.

You can make the following settings:

- Which requirements groups with shift abbreviations and requirements types are available for shift planning
- The link between a shift group and an organizational unit that is to be used in shift planning
- Which time types or time evaluation results are to be printed in the shift plan using Microsoft Excel

Integration

To implement *Shift Planning*, you need the following *SAP Time Management* components:

- *Personnel Administration*

  A personnel master record must be created for each employee to be scheduled in a shift plan in this component. In addition, the *Target Working Time* infotype (0007) must also be maintained for each employee available in shift planning.

- *Time Data Recording*

  Substitutions, attendances/absences and availabilities are maintained in this component, and are transferred by the system to shift planning. Furthermore, changes to this time data made in shift planning are automatically sent back to time recording to be used in time evaluation.

- *Organizational Management*

  Organizational structures are created and maintained in this component. An organizational structure consists of all of the existing organizational units that can be used as entry object types in shift planning. The entry object type defines the human resources required for shift planning by using the evaluation path of the entry profile.

Shift Groups

Definition

In a shift group, you group together the requirements types and shifts that are only valid for this shift group.

The shift group is assigned to the entry object used to enter shift planning.

Thus, in planning a shift with a specific entry object, you only use the requirement types and shifts that are defined in the shift group of the entry object.

Your enterprise operates in the following pattern: Early, late and normal shifts are scheduled Mondays through Fridays. However, flextime can be worked on Saturdays. To set up these requirements, create the following shift group.

Shift Group “XY”

Requirements type	Reqmnts Type Text	Shift Name	Shift Abbreviation
Weekdays	Requirements on weekdays	Early shift	01
		Late shift	02
		Normal shift	03
Saturdays	Reqmnts on Saturdays	Flextime	04

Use

You assign shift groups to entry objects in the *Shift Group* infotype (1039). The *principle of inheritance* applies to this infotype, however, only when you assign organizational units. In this case, you can reduce data entry time by specifying the infotype for organizational units belonging to a higher level of the organizational structure. The subordinate organizational units automatically *inherit* the shift groups of the superior level organizational unit.

To define a shift group, choose *Human Resources* → *Time Management* → *Shift Planning* → *Settings* → *Current Settings* → *Specify Shift Groups* from the *SAP Easy Access* menu, or complete the corresponding step in the IMG for *Shift Planning*.

Shift Abbreviations

Use

A shift abbreviation is the indicator for specific working times in shift plans, such as *early shift, late shift, shift off*, and so on.
You define shift abbreviations in the IMG for *Shift Planning*, and you can use different color and character formats to differentiate between them in shift plans.

Color and character formats for shift abbreviations are defined for each shift group, which ensures that you can make a distinction between different shift areas.
You can also define and display shifts of the same type, (such as attendances, availabilities or absences) in one single color and one single character format. This allows you to easily identify whether an employee is present, sick, and so on...

You can sort or set sequences in any way you like for shifts that have been defined in this way. The shifts can then be displayed in this order in both the ***shift abbreviation bar*** in the shift plan, and in the F4 Help option.

For more information, refer to the documentation on *Shift Plan in Color Design*, as well as the relevant step in the IMG for *Shift Planning*.

Requirements Types

Use

Requirements types are used to describe a certain part of the day, for which a specific requirement can be defined. By assigning a requirements type to a shift group, you can control the maintenance of requirements, and so identify the days on which personnel requirements exist.

Examples:

- Requirements on weekdays
- Requirements on Mondays
- Requirements on weekends

Requirements types are defined in the IMG for Shift Planning, and are used as the basis for defining requirements and requirements types.
All requirements records that belong to a requirements type are only valid for the part of the day that corresponds to this requirements type. In this way, you can always portray recurring requirements that are different, but occur in the same order.

Requirements type *SPECIFIC* has a specific function. It enables you to prioritize each available personnel requirement on individual days. For example, if you want to define a specific personnel requirement for a certain day, you must assign requirements type *SPECIFIC* to the shift group. This requirements type thus allows you to easily create a personnel requirement that differs from all other requirements.

For more information, see Working with Requirements [Page 69].

Example

Your enterprise requires five (5) employees from Monday through Thursday. On Fridays, however, you require seven (7) employees. On Friday 18 February, your ‘open day’ is scheduled. You require ten (10) employees on this day.

Assign the following requirements types to the shift group:

- Requirements on weekdays (weekdays include Monday through Friday inclusively)
- Requirements on Fridays
- Requirement SPECIFIC

Define the requirement on weekdays with five (5) employees.
Define the requirement on Fridays with seven (7) employees. This requirement takes precedence over the usual requirement on Fridays.
Define the requirement SPECIFIC with ten (10) employees on February 18. On this day, only this requirement is valid, irrespective of the number of other requirements types that relate to this day (Friday).

Requirements type *SPECIFIC* has the highest priority. You can use it to portray blank requirements records, or requirements for which no employees are required.

General Color and Character Formatting

Use

The *General Color and Character Formatting* feature allows you to specify which colors and character formats are used to display each shift and business situation in your shift plans. The term ‘business situation’ is used to refer to events that may occur during your planning phase.
These include:

- Changed or unsaved shifts
- Working times that deviate from shift abbreviations
- Info columns for additional employee data
- Name columns in shift plans
- Additional shifts exist for each day (except availabilities)
- Lead columns in Requirements Matchup
- ‘Days off’ exist (day type <> 0)
- Working time preference exists

The shades for the available colors are:

- Normal
- Intensive
- Inverted

The character formats are:

- Normal
- Bold
- Italics
- Underlined

Color and character formatting is defined on the basis of shift groups, as it can be assumed that the same color and character formats are always used within an organizational unit, represented by the shift group. A shift planner can then easily identify information that was created using color and character formats.

As only one color can be displayed in each cell, collisions may sometimes occur, for example if a business situation is defined with the same color as a shift abbreviation or a requirements coverage status. In such an instance, settings that are made for general color and character formatting take precedence over any settings that relate to specific shifts. This scenario is based on priorities that are set for individual settings.

You can define the *General Color and Character Formatting* settings in the IMG for *Shift Planning*, under *Specify Shift Groups*.

You can also specify the colors used for shift abbreviations in the same step.

General Color and Character Formatting

You can define the colors to be used for the various stages of requirements coverage in the IMG for *Shift Planning*, under *Define Icons, Colors and Character Formatting for Requirements Matchup*. In this way, any related information can be easily identified in the shift plan.

Requirements

Definition

A shift plan determines the number and type of requirements that need to be covered. These requirements are then matched to available human resources.

The structure and composition of personnel requirements depends upon your enterprise. The requirements of employees reflect the type and scope of operational tasks, amount of work distributed, as well as technology in use.

Structure

A requirement in *Shift Planning* is structured as follows:

- **Requirements**

  A requirement is defined by assigning it a requirements type and a requirements record.

- **Requirements type**

  A requirement is set up using a calendar. Requirements types allow you to create requirements for different periods, for example, if more employees are required to work on Saturdays than on other days.

- **Requirements record**

  A requirements record determines the following elements:

  – Shift (Daily Work Schedule) or Time Interval

    You break down the weekdays into work-related time periods.

  – Number

    You determine the number of employees that need to be scheduled to cover a requirement. In addition, you can enter a minimum or maximum number of employees and thus specify how many are essential to cover the requirements.

  – Job (type of task)

    You select the work areas where requirements are necessary, for example, department head, machine foreman, and so on.

  – Indicator (ID)

    A requirement with an activated indicator means that an employee already assigned to another requirement can be included in this requirement.

  – Qualification

    You specify which qualifications are required of the employees you want to schedule to cover a requirement. Qualifications can be a knowledge of a foreign language, and so on.

  – Comments

    You can assign an individual name, or briefly describe a requirements record.

  – Validity period

Requirements

You specify the validity period for the requirement.

- **Extended Requirements Record**

  By using an *extended requirements record* you can create exceptions to personnel requirements.

  In the dialog box for Detail Maintenance of Requirements Records [Ext.], you can set up working time intervals using a grid which the system then converts automatically, and uses to complete the extended requirements record.

  For example, one of the divisions of your enterprise is closed Mondays but operates a normal shift Tuesdays through Fridays. The following personnel are required:

  Mondays: No requirements

  Tuesdays - Fridays: 5 employees per day

  To create these requirements, define the following:

Requirements Type:	Requirements Record:
Requirements on weekdays	Normal shift; Target number = 5
Requirements on Mondays	Blank requirements record

  As a result, no personnel requirements are displayed in the shift plan for Mondays.

Working with Requirements

Purpose

Requirements are comprised of the number and type of employees required to fulfill a certain operational task. This data can be used as a reference when planning the working times of employees.

During the planning process, the requirements reflect the optimal planning goal by comparing the current requirements coverage with the desired requirements coverage in *Requirements Matchup*.

The definition of a requirement allows you to refer to all available human resources in your enterprise when planning shifts, and to implement them to optimal effect.

Prerequisites

The following data must first be assigned to a requirement. From the SAP Easy Access screen, choose *Human Resources* → *Organizational Management* → *Organizational Plan* or *Human Resources* → *Time Management* → *Shift Planning*:

- Entry objects (organizational unit, for example)
- Shift group
- Requirements type
- Shift
- Job

Process Flow

1. Determine the entry object type.
2. The employees assigned to entry objects can be used in the shift plan.
3. By selecting an additional object type, you specify the organizational unit for which you want to create a requirement.

   By selecting a profile, you determine the possible entry object types and the requirements source for shift planning. The employees linked to the profile are then available for your shift planning process.
4. Specify a requirements type.
5. Specify a shift.

   Early and late shifts are worked on all workdays. Enter the following assignments for the XY division:

   - Early shift and late shift in the requirements type for working days
   - Early shift and late shift in the requirements type for Saturdays

6. Specify the target number, and the minimum and maximum number of employees required, if necessary.
7. Assign a task profile to the employees by using jobs, if necessary.
8. Specify whether you can assign the requirements record as an additional shift to employees already scheduled, if necessary. Activate the indicator in the ID column.
9. Determine whether you want to cover a requirement with an employee who has certain qualifications.

You can repeat this process until all of the desired requirements types, as well as requirements records, are created.

To define a requirements record, you must first have assigned the following data:

- Shift or time interval
- Target number of employees
- Validity period

Assigning additional data produces a more detailed requirements definition.

You have now defined a requirement. In this requirement, you have determined on what days, and at what time, a certain number of employees are scheduled in the shift plan.

You can then assign the available employees in the shift plan to the requirements specified, until the scheduled requirements are covered.

Editing Requirements

Use

In this function, you specify the personnel requirements for a selected requirement type. Enter the relevant information for the selected requirement type, which then determines the criteria for covering the requirement.

Prerequisites

To be able to use this function, you must have already defined requirement types. The *Editing Requirements* function is a prerequisite for shift planning, which is based on assigning employees to requirements, namely shifts.

Features

You can edit requirements in two screens.

- In the *Display Requirements: Entry Screen* you specify the entry object type and the period for which you want to define the requirement.
- In the *Maintain Requirements: Overview* screen, you select the necessary requirements type and define individual requirements records for it. There are various editing options available in both screens.

Choosing Requirements Types

Prerequisites

You must have already set up the required requirements types, either from the *SAP Easy Access menu*, under *Human Resources* → *Time Management* → *Shift Planning*, and then *Settings* → *Current Settings* → *Specify Shift Groups*, or in the corresponding step in the IMG for *Shift Planning*.

Procedure

1. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Requirements* → Create/*Display.*

   The Create *Requirements: Entry Screen* appears.

2. Enter the current plan version.
3. In the entry object type field, enter an entry object for the requirement to be defined.
4. Select a *Planning period*.
5. Choose *Goto* → *Requirements definition*.

   The *Change/Edit Requirements: Requirements Definition* screen appears.

6. Choose the desired requirements type in the *Requirements type* field.

   If requirements records have already been defined for the selected requirements type, these records will be displayed when the requirement type is selected.

Result

You have now specified the requirements type for which a requirement is to be defined.

You can display requirements records to which a requirements type has already been assigned. To do this, enter your desired period in the *Selection period* field and choose *Get*. You can then quickly edit the requirements records with the copy, change or delete functions.

If requirements records have already been defined for the selected requirements type, these records will be displayed when the requirement type is selected.

Creating or Maintaining Requirements Records

Procedure

1. Select the requirements type [Page 72] for which you want to create or maintain a requirements record.

   If requirements records have already been defined for the selected requirements type, these records will be displayed when the requirement type is selected.

2. Define an individual requirements record.

   Proceed as follows:

   a) To access a shift time in accordance with a pre-defined daily work schedule, enter the applicable shift abbreviation in the *Ab (abbreviation)* field.

   b) To create an individual shift time, enter the desired start and end times for a shift in the *From* and *To* fields.

   c) To specify the number of required employees, maintain the *Tgt (target), Min.* (minimum) or Max. *(maximum)* fields. By maintaining the *Min.* or *Max.* fields, you can define the minimum and maximum number of employees required to fully cover the requirements or task.

   d) To specify the required activities, or classifications of task areas, enter the desired job in the *Job* field.

   e) To specify qualifications, choose the possible entries list for *Qualif.(Qualifications)* and enter the desired data.

   f) To assign an employee to an additional shift, the corresponding requirements record must be activated by setting the indicator in the ID column.
   Select *Yes* or *No* in the ID column.

   g) To describe a shift, enter the text of your choice in the *Comments* field.

   h) To specify a valid period for the requirements record, enter a start and end time.

      The system enters the current date in the *Start date* field automatically.

3. To change the entries for a requirements record, simply overwrite the entries in the record that you want to edit.

4. Choose *Save*.

   You must save your entries after the following steps:

   - When changing the requirements type
   - When exiting requirements processing

   An additional Dialog Box for Entering Details [Ext.] can be used when you are creating requirements records.

   This dialog box enables you to enter the following:

- Qualifications [Page 82]
- Several requirements in one requirements record

To access this dialog box, choose *Edit* → *Details* in this entry screen.

Result

You have now created a requirements record.

Copying Requirements Records

Use

There are two ways to copy requirements records:

- In the current requirements type
- In another requirements type

Procedure

To copy requirements records within the current requirements type:

1. Select the requirements types [Page 72], from or to which the requirements record should be copied.
2. Create a requirements record [Page 73], or refer to existing requirements records.
3. Select the requirements records you want to copy.
4. Choose *Copy*.
5. Choose *Save*.

To copy requirements records to another requirements type:

1. Repeat the steps 1 to 3 above.
2. Choose *Edit* → *Copy to clipboard*
3. Choose another *Requirements type* using the possible entries function.
4. Choose *Edit* → *Insert from clipboard*
5. Choose *Save*.

Result

The selected requirements records are copied to the corresponding requirements field of the current or the alternative requirements type.

Deleting Requirements Records

Procedure

1. Select the requirements types [Page 72] for which you want to delete a requirements record.
2. Select the requirements records you want to delete.
3. Choose *Delete*.
4. Choose *Save*.

Result

The selected requirements records are deleted. The requirements record is deleted from the requirements type.

Extended Requirements Record / Requirements Record Detail

Use

With an extended requirements record, you define a requirements record that can consist of more than one different or identical time intervals. The number of employees required for each interval can also be different or identical.

This means that the requirements record is not assigned to a daily work schedule.
If necessary, jobs and qualifications can be assigned.

At certain times during a day, you have different requirements for employees with the same job and qualifications profile, such as:

- From 08:00 a.m. to 10:00 a.m. - 2 English-speaking salespeople
- From 10:00 a.m. to 2:00 p.m. - 2 English-speaking salespeople
- From 2:00 p.m. to 5:00 p.m. - 6 English-speaking salespeople

You can set up this scenario in one step using an *extended requirements record*. You can use a grid [Page 79] to record identical time intervals (for example, from 08:00 a.m. to 10:00 a.m. and from 10:00 a.m. to 12:00 p.m.).

Creating Extended Requirements Records

Procedure

5. Select the requirements type [Page 72], for which you want to define an extended requirements record.
6. Select an existing requirements record or a requirements record line.
7. Choose *Requirements Record Details*.

   The *Edit Requirements: Details* screen appears.
8. Choose the tab called *Requirements*.
9. In the *From* and *To* fields, enter the start and end times of the requirement belonging to the requirement record.
10. Choose *Transfer.*

Result

The *Edit Requirements: Requirements Definition* screen appears. The requirements record for which you have recorded details, is highlighted grey to indicate that further changes need to be made to the record in the detail screen.

The entries for shift abbreviation and target, minimum and maximum numbers of employees required are not displayed, as more than one different entry is created in the detail screen.

This requirements record is then checked in the *Ext.* column in the Requirements Matchup section of the shift plan.

Creating Partial Requirements Using Grids

Procedure

11. Select the requirements type [Page 72] for which you want to define an extended requirements record.
12. Select an existing requirements record or a requirements record line.
13. Choose *Requirements Record: Details*.

    The *Edit Requirements: Details* screen appears.
14. Choose the tab called *Requirements*.
15. Select “grid”.
16. The *Edit Extended Requirements: Possible Entries* dialog box appears.
17. In the *From* and *To* fields, enter the start and end times of the requirements record.
18. In the *Grid* field, enter the required interval in accordance with the duration of the partial requirements.
19. Enter the *target number* of employees.
20. Choose *Transfer.*

Result

The *Edit Requirements: Details* screen reappears. The partial requirements defined in the grid are displayed.

Blank Requirements Records

Use

You can use a blank requirements record to overwrite a record for a certain period with another requirement for the same period.

In *General requirements*, you have defined that you require 2 people for the early shift. Your company excursion is to take place on 15 July. You create a blank requirements record for *Special day requirements* on 15 July. In this way, you do not have to delimit the general requirement defined for this date.

Creating Blank Requirements Records

Procedure

21. Select the requirements type [Page 72], for which you want to define an extended requirements record.
22. Choose *Edit* → *Insert* → *Blank requirement*.

    The dialog box *Edit Requirements: Deactivate Requirements* appears.
23. In the *Comments* field, record a comment for the requirements record.
24. In the *Validity period* field, enter the validity period of the requirements record.
25. Choose *Transfer.*

Result

The *Edit Requirements: Requirements Definition* screen appears. The blank requirements record is now highlighted grey to indicate that further changes to the requirements record can only be made in the detail screen.

Shift abbreviations, and the target, minimum and maximum numbers of employees required are not displayed.
The text you created is now displayed in the *Comments* column.

Specifying Qualifications

Use

The qualifications that you want to use in shift planning must be defined

- In the IMG, under *Personnel Management* → *Personnel Development* → *Master Data* in the *Edit Qualifications Catalog* step
- In the *SAP Easy Access* menu, under *Human Resources* → *Personnel Management* → *Personnel Development* → *Settings* → *Current Settings* → *Edit Qualifications Catalog*.

The valuation of the qualifications is set in table T77S0. For more information, see the *IMG* for *Personnel Management*, under *Personnel Development* → *Functions* → *Set Up Control Parameters*.

Procedure

26. Select the requirements type [Page 72] for which you want to define an extended requirements record.
27. Select an existing requirements record or a requirements record line.
28. Choose *Requirements Record Details*.

    The *Edit Requirements: Details* screen appears.
29. Choose the tab called *Qualifications*.
30. Choose *Display/insert qualif*.

    A qualifications list then appears.
31. Select the desired qualifications.
32. Choose *Continue*.

    The *Edit Requirements: Details* screen reappears.

    The selected qualifications are displayed.
33. Assign the qualifications to the desired specifications.
34. Choose *Transfer.*

Result

The selected qualifications are assigned as details to the requirements records.
The requirements record is highlighted in the *Qualif. (Qualifications)* column.

Displaying Requirements

Use

The *Requirements: Display* function allows you to check requirements that have already been edited.

Prerequisites

You can only display requirements for entry objects that include requirements you have already edited.

Features

Requirements display shows you an overview of the requirement already defined for the selected entry object. The requirements display also shows the requirements records for the exact search period you entered. You can jump directly to the requirements processing screen from the requirements display. This function allows you to control the requirements processing for an exact time period and, if necessary, make changes or additions immediately.

Displaying Requirements

Use

The *Requirements: Display* screen shows you an overview of the requirements already entered, and allows you to jump directly to the editing mode from the display mode.

Procedure

1. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Requirements* → *Display.*

   The *Requirements Display: Entry Screen* appears.

2. Enter the current plan version.
3. Enter the entry object assigned to the desired requirements.
4. In the *Selection period* field, enter the *Start* and *End* date of the period for the desired shift.
5. Choose *Goto* → *Requirements overview*.

   The system displays a list of existing requirements for the exact selection period you entered.

6. Select a requirement.
7. Expand the desired requirements.

   The system displays all of the requirements records assigned to this daily requirement.

8. Double-click the desired requirements record.

Result

The *Requirements Display: Requirements Definition* screen appears. You can also call up the change mode from this screen if necessary.

Planning Shifts

Purpose

You can use existing *Organizational Units* to enter shift planning, as well as individually defined *Entry Object Types*. In this way, you can refer to the total personnel capacity of your enterprise.

In *Requirements Processing*, you can define requirements generally, or in detail. For example, you can define requirements records by *Jobs, Qualifications, Number of required employees*, and so on.

When planning shifts, you can use *Requirements Matchup* to check the planning status. A requirements matchup shows if a requirement is already covered. If a shift is under- or overstaffed, you can use Requirements Matchup to show the employees who are available for assignment to a *Target* or *Actual Plan.*

The *Assignment Assistant* is available in Requirements Matchup, which you can use to quickly and efficiently assign employees to requirements.
The Assignment Assistant displays any existing assignments, as well as the requirement intervals that still need to be covered by an available employee.
The Assignment Assistant uses the *Automatic Proposal Determination* function to propose employees who are still available to cover the open requirements. You can specify the type of assignment yourself, for example, the working times can be adjusted according to the requirement, or moved.

Shift Planning also allows you to record *Employee Preferences,* and to clearly indicate shifts as employee preferences. You can then monitor the extent to which employee preferences have been realized.

The *Day View* allows you to record your entries, and thereby your planning, directly in the system. You use the Day View to carry out your planning in greater detail. Partial day shifts can also be displayed in the Day View. The *Requirements Matchup* in Day View depicts requirements in a timeline and shows the status of requirements coverage one day at a time.

To take into account a position-dependent payment that differs from an employee's normal payment, you can temporarily assign an employee to another position, without affecting the employee's normal organizational assignment.

Furthermore, you can delegate employees to another organizational unit, as well as assign employees to cover a certain requirement without affecting the organizational model.

Prerequisites

Before you can work with shift planning, you have to determine the *Entry Profile* and the *Entry Object Type*. You also must specify how the various shifts are to be organized.

The *Entry Profile* defines how the system selects the employees you require from the total personnel capacity of your enterprise. The evaluation path is a technical utility to use when selecting employees.

You define the human resources you require by using the *Entry Object Type* and, by doing so, you restrict the personnel capacity available for shift planning.

Shifts are organized into shift groups. You determine the shifts in a group that are required for use in shift planning, and in requirements processing.

Planning Shifts

You assign the entry object type, the evaluation path and the shift group to the entry profile. This entry profile is then entered to start planning shifts.

Process Flow

When you enter shift planning, the system selects all of the available employees using the evaluation path of the chosen entry profile. These employees are then automatically transferred to the shift plan to be assigned to requirements.

These requirements are determined in requirements processing. At the same time, you define all of the personnel prerequisites needed to complete an operational task.

You can call up the shift plan and, if desired, the Requirements Matchup, and have them displayed together on one screen. You can also see the current requirements for each day and the employees available for assignments.

You assign requirements and employees to each other. Assignments can be made for partial day, whole day or several day intervals. Then, Requirements Matchup automatically indicates if the current requirements are under-, over- or fully staffed.

When you *save* your entries, the system stores all time data such as *Time Substitutions, Attendances/Absences* and *Availabilities* in the other *Time Management* components. This data can now be used in other components, such as *Time Evaluation*.

Views in Shift Plans

Use

Shift plan views provide the optimal display of each data entry process. For example, use the *Day View* for planning shifts on a daily basis, as you can also enter and assign partial-day shifts in this view.

Features

There are the following views in shift plans:

- Overview [Page 88]
- Assignment View [Page 89]
- Day View [Page 90]
- Employee Preferences [Page 91]

The following functions are available in each individual view:

- All Assignment Functions of Requirements Matchup [Page 128]
- The Assignment Assistant [Page 122]
- Information Column [Page 93] display
- Automatic creation of a substitution in *SAP Time Recording* if an employee is assigned to an object that already has an employee assigned to it

  You have selected the organizational unit *Costs Management* as well as Work Center 1 (cost calculation) as requirements source. The following requirement exists for both objects.

- Organizational unit *Costs Management* requires 5 employees
- Work Center 1 (Cost Calculation) requires 1 employee

  Assign Employee A to Work Center 1 (Costs Calculation)

  A substitution is created in *SAP Time Recording* for Employee A.

Activities

Call up the original shift plan.

Select the desired view under *Goto.*

Overview

Use

When you call up the Overview, either the target or actual plan is displayed in editing mode, depending on the previous status of the shift plan.

The display is split up into an upper and lower section.

Features

The names of the selected employees are displayed in the upper section.
The working times of the employees are displayed as shift abbreviations in chronological order in a calendar view. If you have not edited the shift abbreviations, they correspond to the working times taken from the employee shift plan in *Time Management*.
You can display an additional four info columns (with any contents), as well as an extra line to show availabilities.

Requirements Matchup is displayed in the lower section of the screen.
Requirements Matchup displays the level of coverage, and can be used to edit requirements. You use Requirements Matchup to create assignments for your employees, and to request an automatic proposal determination from the system. You can also use Requirements Matchup to specify how an assignment is to be created, for example by extending or altering working time.

Assignment View

Use

The Assignment View provides you with an overview of assignments that have already been created for employees available in the current planning phase.

The following assignment data is available:

- Which employees are assigned
- In which interval the employees are assigned
- The requirements source (such as the work center) to which the employees are assigned

Features

You can create new assignments or edit existing assignments in the Assignment View.

In this way, you can directly create a requirements source to which an employee is to be assigned.

You can create a different assignment interval or requirements source for each day in the processing period.

Day View

Use

In the Day View of a target plan, either one or two shift abbreviations representing employee working times are displayed for each day.

If you want to display or edit more time information on your employees, you must access the Day View.

Select the column in the target or actual plan that corresponds to the required day, and use the *Day View* pushbutton to access the Day View.

If you do not select a valid column, the Day View always begins on the first day of the current planning period.

You can of course scroll between days in the Day View.

Employee Preferences

Use

In terms of data display, this view is the same as the *Overview* and can only be called up via the *Overview* screen. In contrast to the *Overview* screen, shift abbreviations are displayed in a different color in the *Employee Preferences* screen, for example, in red. You create an employee preference by changing the shift abbreviation, which is then displayed in a different color, for example, in black.

If you return to the *Overview* screen, the information is displayed in a different color. In this instance, all shift abbreviations that describe an employee preference are shown in red.

Specifying Employee Preferences

Use

Employee preferences can also be considered when planning shifts. An employee preference is simply a shift preferred by the employee.

Procedure

1. Start a Shift Plan [Page 97].
2. Choose *Goto* → *Employee preferences*.
3. The *Change Target Plan: Employee Preferences* screen appears.

If you have chosen to display the shift plan in the classic design [Page 60] , the shift abbreviations are highlighted in different colors.

To create an employee preference

4. Enter the preferred shift of the relevant employee for the day concerned.

To return to the target plan:

5. Choose *Goto* → *Overview*.

If you have chosen to display the shift plan in the *classic design*, employee preferences are highlighted in different colors.

If you have chosen to display the shift plan in the color design [Page 60], the employee preferences are displayed in accordance with the settings made in General Color and Character Formatting [Page 65]. The other shift abbreviations appear in the original default color on the screen.

6. Choose *Save*.

Result

You have taken a working time preference of an employee into consideration during shift planning.

Information Columns

Use

When creating shifts, it is essential that you always have various types of information at your disposal.

For this reason, you can display up to four information columns in a shift plan.
This allows you to display the information relevant to your current planning phase and requirements quickly and efficiently.

You define which information columns can be displayed by choosing *Views --> Info columns* either in the IMG for *Shift Planning*, or in the *Other Contents* function.

The sequence of info columns in the shift plan is identical to the sequence in the menu.
For more information, see the IMG for *Shift Planning* under *Info Columns and Proposal Determination*.

Features

You can define the following information:

- Any data in a function module with desired information.
  You can also define customer-specific function modules.
- Each time type from the time evaluation simulation
- Each wage type from the time evaluation simulation

You can save the user-specific information selected in the info column configuration.

If you hide the info columns, for example to obtain more room for displaying information, you can redisplay the columns by choosing *Show info column configuration*.

You can hide or display availabilities in target and actual plans by *choosing Views --> Show/hide Availabilities.*
An additional line is then displayed for each employee in the shift plan.

For more information, see the IMG for *Shift Planning* under *Info Columns and Proposal Determination*.

The info columns can be displayed in a number of colors and shades.

You make these settings in the IMG for Shift Planning under *Specify Shift Groups*.

For more information, refer to General Color and Character Formatting [Page 65].

Defining Information Columns

Prerequisites

Information that you wish to display in the shift plan must be defined in the *Define Information Column* step in the Implementation Guide (IMG) for *Shift Planning*.

For more information, refer to the IMG for *Shift Planning*.

Procedure

To show or hide info columns in the shift plan:

1. Start a Shift Plan [Page 97].
2. Choose *Views* → *Edit information columns*.

   The *Choose Info Column Contents* dialog box appears.
3. Select the desired information.

   The number of fields completed in this screen also determines the number of info columns displayed in the shift plan.

To change the contents of the info column:

1. Start a Shift Plan [Page 97].
2. Choose *Views* → *Edit information columns*.

   The *Choose Info Column Contents* screen appears.
3. Select the info column contents in the sequence that you wish to use to display information in the shift plan (from left to right).

To save the current info column displays as the main display variant:

1. Start a Shift Plan [Page 97].
2. Choose *Views* → *Edit information columns*.

   The *Choose Info Column Contents* screen appears.
3. Choose the desired contents.
4. Choose *Views* → *Save info column configuration*.

To show or hide the info column configuration:

1. Start a Shift Plan [Page 97].
2. Show or hide the info columns.

The number of fields completed in this screen also determines the number of info columns displayed in the shift plan.

You can also define the color and character settings of the info columns and info column contents when the shift plan is displayed in the new *color design*.

You make this setting from the *SAP Easy Access* menu, under *Human Resources* → *Time Management* → *Shift Planning, and then Current Settings* → *Specify Shift Group*, in the *General Color and Character Formatting* activity, or in the corresponding step in the IMG for *Shift Planning*.

For more information, refer to General Color and Character Formatting [Page 65].

Result

You have determined the info columns, and the contents that are to be displayed in the shift plan. The data is displayed in accordance with the current *Time Management* status.

Editing Shift Plans

Use

With this function you edit the target or actual plan.

Prerequisites

You must edit the default values [Page 58] for Shift Planning. Valid links to organizational units must exist.

To use the *Requirements Matchup* function, you must first define requirements [Page 73] for the objects to be scheduled.

Features

Various editing functions are grouped in the *Edit Shift Plan* function that allow or facilitate the creation and maintenance of a shift plan.

Starting a Shift Plan

Procedure

To start the *Shift Planning* component:

1. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Change shift plan.*
2. Enter the current plan version.
3. If necessary, select a Shift Group [Page 62].

   The *Change Shift Plan: Entry Screen* appears.
4. Enter the desired entry object in the entry field of the entry object type.
   For more information, see Selecting Entry Profiles [Page 99]
5. In the *Shift plan status* field, select the ID of the desired shift plan (either target or actual plan).
6. In the *Planning period* section of the screen, enter the time period for which you want to plan shifts.
7. Choose *Goto* → *Overview*.

   From the *Change Shift Plan: Entry Screen*, you can choose whether you want to display the shift plan in the classic design, or in the new color design [Page 60], under the *Settings* menu option.

   The shift plan displays a period of 62 days. If you have a validity period that is greater than 62 days, you can page through the week or month to locate the desired time period in the shift plan. From the *Change Shift Plan:Overview* screen, choose *Goto* → *New period* → ... and then the desired time interval.

   You can call up the shift plan in the *color design* for any period. You can display the desired planning period by *scrolling* to the relevant data.

   Repeat this step for each entry object.

   If no *shift group* has been specified for an *entry object*, the system automatically displays the *Shift Group Missing* dialog box. The main screen for the *Shift Group: Add* infotype (1039) appears, in which you can add a shift group. You can then select a shift group using the possible entries function. After you have selected a shift group, choose *Infotype* → *Save,* to transfer the shift group. The selected shift plan is displayed.

   To change the assignment of an entry object to a shift group, select the desired shift group by choosing *Environment* → *Current settings* → *Maintain shift group infotype for organizational unit* from the entry screen.

Result

Either the *Change Target Plan: Overview Screen* or the *Change Actual Plan: Overview Screen* appears.

Selecting an Entry Profile

Use

You select an entry profile for shift planning in this section. The entry profile determines the entry object types used to select employees to create a shift plan.

For more information, see Profile [Page 59]

Procedure

8. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning* and then *Settings* → *Choose profile.*

   The *Choose profile* dialog box appears.

9. Enter the desired entry profile.
10. Choose *Continue*.

Result

You have determined the entry profile, and as a result, the evaluation path that should be used for selecting the employees required during shift planning.

Selecting Employees According to Organizational Structures

Use

You can specify the employees used for shift planning by selecting the applicable objects in the profile for the entry object type. Employees linked to that object are then transferred to the shift plan.

The system creates a list of employees who are linked to the entry objects according to the evaluation path of the entry profile.

For more information, see Profile [Page 59]

Procedure

11. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Change shift plan.*
12. Enter the current plan version.
13. If necessary, select a Shift Group [Page 62].

    The *Change Shift Plan: Entry Screen* appears.
14. Enter the desired *entry object* in the entry field of the *entry object type*.
    For more information, see Selecting Entry Profiles [Page 99]
15. In the *Shift plan status* field, select the ID of the desired shift plan (either target or actual plan).
16. In the *Planning period* section of the screen, enter the time period for which you want to plan shifts.
17. Choose *Goto* → *Employee selection*, then *Dynamic selections*.

    A dialog box appears, in which you can enter the criteria you need to select the employees to be included in shift planning.
18. Set and confirm your selection criteria.
19. The *Change Shift Plan: Entry Screen* appears.
20. Choose *Overview*.

Result

You have determined the organizational units that should be used for selecting the employees required for shift planning.

The employees now available in the shift plan are those who are assigned to the specified organizational units, and those who were selected in accordance with the evaluation path that you defined in Profile [Page 59].

Filtering Employees According to Jobs

Use

You can restrict the selection of employees by using a profile. In this way, you get an individualized selection of employees.

You can specify the employees used for shift planning by selecting the applicable jobs. Employees linked to that object are then transferred to the shift plan.

The system creates a list of employees who are linked to the entry objects according to the evaluation path of the entry profile.

Procedure

21. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Change shift plan.*
22. Enter the current plan version.
23. If necessary, select a Shift Group [Page 62].

    The *Change Shift Plan: Entry Screen* appears.
24. Enter the desired *entry object* in the entry field of the *entry object type*.
    For more information, see Selecting Entry Profiles [Page 99].
25. In the *Shift plan status* field, select the ID of the desired shift plan (either target or actual plan).
26. In the *Planning period* section of the screen, enter the time period for which you want to plan shifts.
27. Choose *Goto* → *Employee selection* → *Restrict employees by jobs*.

    A dialog box appears, in which you can enter the criteria you need to select the employees to be included in shift planning.
28. Select and confirm your selection criteria.
29. The *Change Shift Plan: Entry Screen* appears.
30. Choose *Overview*.

Result

You have limited the selection of employees found using an evaluation path to a specific number of employees, who match the jobs defined.

Changing Shift Plans

Use

Shift plans are both target and actual plans. The shift plan displays the employees who are selected from the evaluation path of the entry profile, and the entry objects. The calendar for the desired planning period is also displayed. Additionally, you can see more data about the selected employees, such as the organizational unit, job and personnel number, in a separate information column.

When you call up Requirements Matchup, the current personnel requirements are displayed. You can then assign employees and requirements to each other.

You can change target plans at any time before the target plans are completed. You can only edit the actual plan once you have completed the target plan. You can change actual plans at any time.

If changes or additions to the target plan are still required, the target plan might need to be completely or partially deleted.

Procedure

1. Start a Shift Plan [Page 97].
2. Enter the desired data.
3. Choose *Save*.

Result

You have edited the shift plan, and saved the data you created.

Changing and Assigning a Shift Plan Directly in the Calendar

Use

You use this function to change or assign shifts quickly and efficiently. You can modify one or more shifts in one single step.

Procedure

1. Start a Shift Plan [Page 97].
2. Select the shift that you want to change.
3. Enter the desired shift abbreviation.
4. Choose *Save*.

Result

You have changed the shift or the daily work schedule, that is to say, the working time of an employee, directly in the shift plan.

Saving Shift Plans

Use

When you save the shift plan, all of the data defined in the plan is transferred to *SAP Time Recording* automatically by the system. This data can then be used for time evaluation.

Procedure

1. Start Shift Planning [Page 97].
2. Edit the shift plan.
3. Choose *Save*.

Result

The shift plan is saved. Changed shifts are transferred directly to *Time Management*.

Printing Shift Plans

Use

You can print a shift plan in various variants and thus, you can for example, provide an employee with a printout of the heads of department for information purposes.

As well as the interactive display and print functions provided in the *SAP system*, you can also use the display and print functions in Microsoft EXCEL.

Procedure

1. Start a Shift Plan [Page 97].
2. Choose *Settings* → *Print options*.
3. Select the desired page layout in the *Page layout of display* section.
4. In the *Display shift abbreviation and times* section, define whether shift times should be displayed, and if so, in what format.
5. In the *Additional display options*, enter any additional information (aside from the standard information) that should be included in the list.
6. In the *Print preview* section, select the display type for the list.

Result

A list containing the specified information, and in the specified display variant is displayed, and/or printed.

Target Plans

Definition

The *Target Plan* is a temporary shift plan with modifiable target entries. The target plan is the basis for the *Actual Plan*.

Use

When you call up the target plan, a screen appears displaying a calendar on which the selection of employees, and their personal work schedules, have been entered automatically by the system. You determine this selection by using the entry object type and the entry profile. The daily work schedules are automatically transferred from other *Time Management* components.

One function in the target plan is *Requirements Matchup*, which displays the requirements you defined, and allows you to assign them to the selected employees. If the daily work schedule of the requirement differs from that of the employee, you can change the working time of the employee in the calendar display of the shift plan. Thus, you can adjust the work schedule to suit an entry object type of the defined requirement.

In addition to the Calendar View, a Day View can be used to assign requirements and employees to partial shifts and part-time work. By using the Day View, you can schedule whole and partial-day requirements, as well as individually process and display any day of your choice. When you save your entries, all relevant data for time evaluation and time accounting is automatically transferred to the applicable components.

When you finish planning the target shift, you close the target plan and lock the data from any additional changes being made. As a result, the target plan becomes the actual plan.

If changes or additions to the target plan are still required, the target plan might need to be completely or partially deleted.

Unlocking and Locking Master Data

Use

All employees assigned to the entry object you use to enter shift planning can be used in your shift plan. The master data of this employee is then locked to prevent further processing in other components. For more information, refer to the IMG for *Shift Planning* under *Lock Setting*. This prevents other users from changing data you are currently working on.

You can, however, unlock master data so that other users have access to the data records, for example, to update data relevant for accounting.

Procedure

Unlocking User Master Data

1. Start a Shift Plan [Page 97].
2. Select the employees whose master data you want to unlock.
3. Choose *Edit* → *Employee* → *Unlock*.

   The system unlocks the master data of the employee. A symbol appears next to the name of the employee whose record is now unlocked.

   Before you can make any new changes to the data record of the employee, you have to lock the master data again.

Locking User Master Data

1. Start a Shift Plan [Page 97].
2. Select the employee whose master data you want to lock.
3. Choose *Edit* → *Employee* → *Lock*.

   The system locks the master data of the employee. The “unlocked” symbol next to the name of the employee whose master record is now locked disappears.

Result

You have either locked or unlocked the employee currently involved in shift planning from additional data maintenance or editing in other areas.

Shifts

Definition

A shift describes a period of working time with a specific abbreviation and a particular name.

Shift

Working Time Period	Name	Shift Abbreviation
5:30 a.m. - 2:30 p.m.	Early Shift	01
12:00 a.m. - 12:00 a.m.	On-call Duty	OC
10:00 a.m. - 4:00 p.m.	Individual Shift	NO

Use

You can define shifts with their own periods of working time. You can also assign *Daily Work Schedules* to shifts. These daily work schedules are available from other components as a result of the integration of all components in *Time Management*.

Shifts can be combined into shift groups. Shift groups, in turn, are then assigned to entry objects. When planning shifts, you can use the shifts assigned to the current entry object by its shift group.

To define shifts and shift groups, choose *Human resources* → *Time management* → *Shift planning* → *Environment* → *Current settings*, or the corresponding step in *Customizing*.

Shift Details

Use

In the *Shift on (date)* dialog box, important data that is relevant to the planning stage is displayed. You can also edit the planning data, or add extra information.
To access this dialog box, choose *Edit --> Shift details*, or simply double-click on the relevant shift.

Features

You can edit the daily work schedule (DWS) or the corresponding working time in both the *Shift* and *Working time* fields. If you save your changes, a substitution record is created in *Time Management*.

In the *ID* (indicator) field, you can specify which substitution type is used to create the substitution record. In this way, you can vary the substitution types used in the shift plan as much as you want. This then allows you to specify during the planning stage how certain changes to working times are to be recorded and evaluated.
You use the ***PEINS VART*** switch in table ***T77S0*** to activate the *indicate shifts with a substitution type* feature.

In the *Info* field, you can create information for each individual day. This allows you to make comments, such as the working time has been changed to reflect an employee preference, for example.

In the *Temporarily paid as* field, you specify that the employee is to be temporarily paid for standard working time in accordance with the specifications of another position. A position substitution is recorded in *Time Management* if you enter a position.
This function is activated using switch ***PEINS PLSTE*** in table ***T77S0***.

In the *Employee* field, you can temporarily assign an employee to one of the organizational units you used to enter *Shift Planning*.

You can also choose the cost center that is to be debited for the shift.

You can assign an availability to an employee in the *Availability* field.

Assigning Cost Centers to Partial-Day Attendances

Use

In the day view of a shift plan, you can assign cost centers to partial-day attendances.

This means that you can assign different cost centers to different shifts on the same day for the same employee.

Use the possible entries help function (F4) to display a list of all cost centers available in the organizational unit that you are currently editing.

Shifts as Special Substitution Types

Use

In both the target and actual plan, you can document shifts with whole day working times for each individual day.

This allows you to create notes and texts for a shift, which will then not be evaluated.

In these written records, for example, you can specify that a shift has been changed to reflect an employee preference, or that the shift had to be changed due to company reasons.

Features

You can also use the standard list to display and print the information on a shift in the target plan.

Individual Documentation on Shifts

Use

In both the target and actual plan, you can document shifts with whole day working times for each individual day.

This allows you to create notes and texts for a shift, which will then not be evaluated.

In these written records, for example, you can specify that a shift has been changed to reflect an employee preference, or that the shift had to be changed due to company reasons.

You can also use the standard list to display and print the information on a shift in the target plan.

Features

In the *Info* field, you can create information for each individual day. This allows you to make comments, such as the working time has been changed to reflect an employee preference, for example.

Copying/Swapping Employee Shifts

Use

You can copy shifts from one employee to another. Copying is a quick and efficient way of assigning shifts.

To do this, select an employee and copy his/her shift plan so that you can assign it to another employee too. Select the required employee, and use the *Copy shifts* pushbutton.

In the subsequent dialog box, enter the employee and the desired period.

Procedure

1. Start Shift Planning [Page 97].
2. Select the line of the employee whose shifts are to be copied or swapped.
3. Choose *Edit* → *Copy/swap shifts*.

   The *Copy/Swap Shifts During Period* dialog box appears.
4. Select a processing type.
5. Select a validity period for the copied/swapped shift.
6. In the *To employee* field, enter the name of the employee who is to be assigned the copied/swapped shifts.
7. In the *Copy/Swap Options* screen section, specify whether or not existing requirement assignments and availabilities are also to be copied or swapped.
8. Choose *Continue*.

Result

The system copies/swaps the relevant shifts, and if necessary, any requirement assignments and availabilities.

Displaying Additional Employee Data

Use

You can also display employee data from various other Time Management components, such as:

- Leave entitlement
- Address and telephone numbers (work and home)
- Qualifications
- Organizational assignment
- Deviations
- Different type of work

Procedure

1. *Start* Shift Planning [Page 97].
2. Select the line for the employee whose data you want to display.
3. Choose *Edit* → *Employees* → *Display data*.

   The *Employee Data* dialog box appears.
4. Select the desired data.
5. Choose *Details*.

Result

The corresponding data is then displayed.

Assigning Shifts

Use

Assigning employees to shifts ensures that:

- the employee is assigned a working time that corresponds to the shift
- the level of coverage of a requirement approaches full coverage

Prerequisites

You assign shifts by assigning requirements records to employees. A requirement with corresponding shifts must be defined before this assignment can be completed.

Activities

Select an employee and requirements that are to be assigned to each other.

Complete the assignment.

Result

When assigned a shift, the employee automatically receives the working time that corresponds to the assigned shift.

There is a function that helps you during the process of employee assignment.

The Assignment Assistant automatically proposes employees, and thus supports efficient and fast shift planning.

For more information, see Assignment Assistant [Page 122].

Refer also to Automatic Proposal Determination [Page 116].

Automatic Proposal Determination

Use

In the IMG for *Shift Planning*, you define the suitability criteria to be used for selecting the employees available to be automatically assigned to a personnel requirement by the system.

Prerequisites

Function modules provide the suitability criteria with the necessary data.

There are three function modules in the standard SAP system:

- Employment percentage (HRSP_HITLIST_EMPLOYMENT_PCT)
- Qualitative suitability (HRSP_HITLIST_QUALIF)
- Seniority (HRSP_HITLIST_SENIORITY)

If you require suitability criteria that are not provided in the standard SAP system, you can use a function module created with the *Function Builder* transaction (SE37) to define new criteria.

Setting Priorities for Selection Criteria in Shift Plans

Use

You can set any priorities for the selected suitability criteria.

In this way, you can control which employees are scheduled first by the system.

By setting priorities for the suitability criteria, you can also set the sequence that the system uses to assign available employees to requirements.

You can *prioritize* the *proposal determination* function within the *Assignment Assistant*. As a result, the system will first of all schedule any employees who match these settings.

You can also set priorities in the IMG for *Shift Planning* to define the automatic assignment proposal for the *Determine Assignment Proposal* function.

Assignment Strategy

Use

The automatic proposal determination function is based on an assignment strategy, in which you specify which criteria (in terms of working time, requirement interval and employee selection) is to be used to assign employees to requirements.

You can either use the strategy provided in the standard SAP system, or define your own, user-specific strategy.

In the IMG for *Shift Planning*, you can *maintain* the *strategies for automatic proposal determination*, as well as *set* the *default strategies for automatic proposal determination*.

In the *Maintain Strategies for Automatic Proposal Determination* activity, you specify which strategies the system uses in the *Determine assignment proposal* function to find the employees required to cover a personnel requirement.

By defining a strategy, you determine:

- The maximum number of runs that the system can perform
- Which options for selecting employees are valid for each run
- The sequence in which the runs are to be performed

The system runs the strategy once for each requirement and day, irrespective of the degree of coverage attained as a result of automatic assignment.

Features

A strategy can consist of more than one proposal run.
You can set different options for each run, such as:

- Target level of coverage
  You can only assign employees to a requirement until the defined level of coverage is reached.
- Relevance of organizational units or jobs for a personnel-requirement assignment
- Priorities for suitability criteria

You can define strategies in the IMG for *Shift Planning*, under *Info Columns and Proposal Determination* → *Set Up Automatic Proposal Determination* → *Maintain Strategies for Automatic Proposal Determination*.

The standard strategy is *SAP-1* (entry in table *T77S0*, group *PEINS*, semantic abbreviation *RULE*).

Automatic Assignment for Shift Changes

Use

This function allows you to determine whether employees are automatically assigned to a personnel requirement if their shift or working times are changed.

You can activate or deactivate this function in either of the *Shift Plan: Overview* screens (target plan or actual plan), by choosing *Settings* → *Automatic assignment active/inactive*.

Prerequisites

You can specify the strategy that is to be used to assign an employee to a personnel requirement in the IMG for Shift Planning, under Info Columns and Proposal Determination → Set Up Automatic Proposal Determination → Define Strategy for Automatic Assignment for Shift Changes.

Features

If you have activated automatic assignment for shift changes, any changes made to an employee's shifts or working times in the shift plan are automatically assigned to the requirements with corresponding times in Requirements Matchup.
This assignment is performed on the basis of the assignment options that you set up in the strategy valid for automatic assignments.

For more information, see Assignment Strategy [Page 118].

Determining Automatic Assignment Proposals

Use

The proposal determination function helps you search for suitable employees when you are planning shifts. It belongs to the Assignment Assistant, and selects employees according to the priorities that you specify. When the employee selection has been completed, you can then assign the employees to the specified shifts.

Prerequisites

To use the proposal determination function, you must first define the selection criteria in the *Define Hitlists* step in the IMG for *Shift Planning.*

You can define the sequence for the selection criteria in the above proposal priority function.

In the hitlist, define *Length of Service, Employment Percentage* and *Qualifications* as selection criteria for the proposal determination. In the *Prioritize Proposal Determination* screen, specify that *Employment Percentage* has the highest priority. According to these selections, the system will first propose those employees whose working time is identical to the shift time.

If you do not set any priorities, the system will propose any employees who do not yet have a shift assignment for the current requirement. The sequence of the hitlist is in accordance with the filter for employees in the target plan, for example, in alphabetical order.

Activities

In the *Edit Target Plan: Overview* screen, choose *Edit* → *Determine assignment proposal*, or in the *Assignment Assistant*, choose *Determine proposal*.

If you want to set specific selection criteria, select *Prioritize proposal determination.*

Select one of the proposed employees, and choose *Continue.*

The employee is displayed in the *Open intervals* screen section.

Transfer the employee.

Prioritizing Proposal Determination

Prerequisites

The priority criteria that the system offers you in the possible entries function must first be defined in the *Define Hitlists* step in the IMG for *Shift Planning*.

Procedure

1. From the *Change Target Plan: Overview* screen, choose *Edit → Prioritize proposal determination*.

   The *Prioritize Proposal Determination* dialog box appears.

2. In the input fields *Prio. 1* to *Prio. 4*, specify the criteria, according to which the system selects the desired employees from the current organizational unit.

   If you do not set a priority for proposal determination, the system will propose all employees in the current organizational unit who have not yet been assigned to a shift.

   The priority or sequence of the displayed information corresponds to the information you enter in the *Name in shift plan* column.

   You can also use the Assignment Assistant [Page 122] to set priorities for proposal determination.

Result

You have defined the sequence of selection criteria, according to which employees from the current organizational unit are selected and proposed for shift assignments.

Assignment Assistant

Use

The assignment assistant can be used when assigning employees and requirements using Requirements Matchup [Page 125] as well as from the Assignment View [Page 89]. The assignment assistant appears as a dialog box called *Breakdown of Requirements Assignment*.

You can specify assignment dates and options with the Assignment Assistant.

Assignment Data

- Time period, in which the assignment of requirements is to take place
- Assignment interval

  Here you specify the interval in which an assignment is to take place.

  To specify these entries, you can access a shift abbreviation that determines the desired working time.

  You can, however, enter any interval of your choice.

  The assignment interval can only exist within the time period of the shift time.

Assignment Options

- Modify working time to suit requirements

  If you select this assignment option, you can modify an employee's working time to suit the time interval of the requirement if this interval deviates from the employee's working time.

  If the employee's working time overlaps with his or her own normal working time, then the system creates a *Substitution* in *SAP Time Recording*. If the working time is extended, the system creates a change in the employee's working time in *SAP Time Recording*.

- Do not break down requirements intervals

  Here you determine that an assignment of employees and requirements can only be created for complete (not partial) coverage of the requirements interval.

- Do not break down working time

  If this assignment option is selected, then you specify that only an employee whose working time is identical to the time interval of the requirements can be assigned to those requirements.

In the IMG for *Shift Planning*, under *Determine Assignment Options*, you can set the options that are to be used when assigning requirements to employees.

You can also specify the type of attendance that is created by an extension to working time.

You can specify what type of substitution is created when working time is modified in the IMG for *Shift Planning*, under *Integration* → *Define Substitution Types*.

Calling Up the Assignment Assistant

Use

Use the *Assignment Assistant* to attain a proposal from the system for suitable employees for shift planning.

Procedure

1. Start Shift Planning [Page 97].
2. In *Requirements Matchup*, select the buttons for the requirement and date for which you want to create an assignment.

   The *Assignment Assistant for Requirement* (*name of the current organizational unit)* dialog box appears.

To define assignment options:

3. Choose *Assignment options*.

   A second *Assignment assistant for requirement* (*name of the current organizational unit)* dialog box appears.
4. Specify the desired assignment options.
   Also see the relevant F1 Help information.
5. Choose *Continue*.

   The following assignment options are provided in the standard *SAP System*.

   Modify working time to suit requirements

   By altering working time

To attain an assignment proposal:

3. Select *Determine proposal.*
4. The *Proposal Determination Result* dialog box appears.
5. Select the employee to be assigned to the shift.
6. Choose *Continue*.
7. You return to the *Assignment Assistant for Requirement* (*name of the current organizational unit)* subscreen.
8. Choose *Continue*.
9. The selected employee is displayed.
10. Choose *Transfer.*

Result

The employee is assigned to the shift according to the options entered.

Requirements Matchup

Definition

You can only assign requirements and employees by using *Requirements Matchup*. This function gives you an overview of available requirements records.

You can choose to display *Requirements Matchup* in either of the following two formats:

Shift plan in classic design

Shift plan in color design [Page 60]

Use

In Requirements Matchup, you can make assignments for one day, or several days at the same time. You can edit and display the assignments in detail, and make time-related changes to the shift plan. Partial-day assignments can also be made in the Day View. You can use Requirements Matchup in the same manner in the Day View. The Day View allows you to plan your shifts with high precision.

Requirements Matchup displays the current status of requirements processing, and takes requirements coverage into consideration. In addition, the *Display assigned employees* function lists the assignments that have already been made. This screen displays the date, employee and period for which an assignment already exists, and allows you to delete any of the assignments. In the shift plan, choose *Edit* → *Assignment* → *Display*.

If you choose *Shift plan in color design* from the *Shift Plan: Overview* screen, you can choose whether to display Requirements Matchup with one or two lines. If you display Requirements Matchup in one single line, information on both the target and actual number of employees (number already assigned to this requirements record) is displayed in a field in one line. If you display Requirements Matchup in two lines, however, this data is displayed in two separate lines.

The new color design allows you to highlight different business statuses in Requirements Matchup. This allows you to easily identify the current status of requirements coverage. You can differentiate between the following statuses:

- Requirements coverage exceeds maximum level
- Requirements coverage matches maximum level
- Requirements matchup does not meet minimum level
- Requirements coverage matches minimum level
- Requirements coverage exceeds target level
- Requirements matchup does not meet target level
- Requirements coverage matches target level

Fore more information, refer to General Color and Character Formatting [Page 65], or the IMG for *Shift Planning*, under *Define Icons, Colors and Character Formatting for Requirements Matchup*.

You can also switch *Requirements Matchup* on or off at any time. The Day View depicts the current status in a timeline.

Switching Requirements Matchup On/Off

Use

Requirements Matchup is required for assigning requirements and employees to each other. Requirements Matchup also displays the current status of requirements processing in various views.

Procedure

1. Start Shift Planning [Page 97].
2. Choose *Views* → *Show/hide requirements matchup*.

Result

Requirements Matchup is then either displayed as part of the planning table, or is hidden from view.

Creating an Assignment

Use

Employees and requirements are assigned to each other in Requirements Matchup.

Procedure

1. Start Shift Planning [Page 97].
2. Choose *Views* → *Show requirements matchup*.
3. Select the requirements record in Requirements Matchup that you want to assign to an employee.
4. Select the employee in the shift plan that you want to assign to a requirements record.
5. Choose *Edit* → *Assignment* → *Create*.

   The *Breakdown of Requirements Assignment* dialog box appears.

   Refer to Assignment Assistant [Page 122].
6. Enter the applicable time period for the assignment.
7. In the *Interval* field, enter a shift in the form of an abbreviation, for example, a daily work schedule or an individual time interval.

If you want to specify additional assignment options:

8. Choose *Show options*.

   The extended *Breakdown of requirements assignment* dialog box appears.
9. Select the desired assignment options.

   Refer to Assignment Assistant [Page 122].
10. Choose *Continue*.

    The data is transferred to the shift plan. The period that was edited is now highlighted on the screen. When the requirements are covered, the color of the shift changes in Requirements Matchup.
11. Choose *Save*.

Result

You have assigned a requirement or a shift to an employee. The employee must work the hours that have been specified for this shift.

Displaying or Deleting an Assignment

Use

You can call up assignments of requirements and employees by choosing *Edit → Assignment → Assigned employees...* or you can use the Calendar View in Requirements Matchup by clicking on the day for which you want to display the assignments.

If you call up the assignments in Requirements Matchup, the Assignment Assistant screen appears.

Procedure

1. Start a Shift Plan [Page 97].
2. Choose *Edit → Assignment → Assigned employees*.

   The *All Assigned Employees with Requirements Overview* dialog box appears.
3. Select the assignments you want to delete.

   If a node is selected, all subordinate levels are also selected. Thus, you can delete all of the assignments created when editing the shift plan in one step.
4. Choose *Delete assignments*.
5. Choose *Transfer.*

   The selected data is deleted. The period containing the deleted shifts appears in its original format. You can then reassign the employees.
6. Choose *Save*.

Displaying or Deleting a Shift in Requirements Matchup

1. Start a Shift Plan [Page 97].
2. Choose *Views → Show requirements matchup*.
3. In Requirements Matchup, choose any field in the displayed calendar.
4. The Assignment Assistant [Page 122] is called up.

Result

You can either display an employee's assignments, or delete the assignments.

Temporary Assignment of Employees

Use

This allows you to temporarily assign an employee from your organizational unit to other units within the enterprise.

You can choose whether the temporarily-assigned employee:

- Is available exclusively in the original organizational unit
- Is available in both the receiving and the assigning organizational unit at the same time

If necessary, the employee can then be assigned to a shift by these organizational units. If you confirm a shift assignment, the employee concerned cannot have a further assignment while assigned to this shift.

Features

You can specify the following features for temporary assignment:

- The organizational unit to which an employee is temporarily assigned
- Whether the temporary assignment incurs a different payment, and if so, the organizational unit to which the payment is assigned
- The period of validity for the temporary assignment
- Which daily work schedule should be used for the shift
- Whether the employee is available in both the receiving and the assigning organizational units at the same time, or exclusively in the original unit

Activities

1. Call up the temporary assignment procedure for an employee.
2. Specify the organizational unit to which the employee is to be temporarily assigned.
3. If the payment of a temporarily-assigned employee is to be executed by a different cost center, enter the required center.
4. Specify the working time for the shift during the temporary assignment.
5. Specify whether the employee is to be available in either one organizational unit, or more than one unit at the same time.

The employees' shifts are adjusted accordingly to match the requirements when the data is transferred.

Shared Availability

Use

An employee can be available for assignment in more than one organizational unit on a particular day.

You can define either an exclusive, or a shared temporary assignment to an organizational unit.

If you define an exclusive temporary assignment, only the organizational unit to which employees are temporarily assigned can schedule them.
As a result, the employees are only displayed in the shift plan in this organizational unit for the period of the temporary assignment.

If you define a temporary assignment with shared availability, all organizational units (master organizational unit and the units to which an employee has been temporarily assigned) can schedule the employee. If one of the units assigns the employee to a requirement, he/she can no longer be assigned to another requirement by the other units in the same period.

The temporary assignment list displays all the existing temporary assignments/markings for temporary assignment, as well as all actual assignments of one or all employees involved in the current planning stage.

Prerequisites

The shared availability function is based on evaluation paths that are defined in the profiles for *Shift Planning*. The standard SAP system contains the *Employees in org.units, shared availability* profile (SAP_000004). You can define your own evaluation paths in the IMG for *Shift Planning* under *Specify Profiles for Shift Planning*.

Temporarily Assigning Employees

Use

You can temporarily assign employees, so as to ensure that requirements in your enterprise are effectively covered.

You can also create a temporary assignment with shared availability, which means that an employee can be scheduled by more than one organizational unit at the same time. Once one of the organizational units has assigned a requirement to the employee in question, he/she is "locked", and can no longer be scheduled by the other units to which he/she is assigned.

Prerequisites

To be able to use the shared availability function, you must use either the standard SAP_000004 profile (employees in org.units - shared temporary assignment), or a profile that you have defined yourself (with an identical evaluation path) to enter Shift Planning.

Procedure

1. Start Shift Planning [Page 97].
2. Select the employee you want to temporarily assign.
3. Choose *Edit* → *Employee* → *Temporarily assign*.

   The *Temporarily Assign Employee (Name) data* dialog box appears.
4. In the *Temp. assign to* field, enter the organizational unit to which the employee is to be temporarily assigned.
5. To create a change of cost center for the temporary assignment, select the relevant cost center in the *Temp. paid by* field.
6. Specify the period for the temporary assignment.
7. If you want to temporarily assign the employee just to a specific shift, you can select the desired shift abbreviation in the *Shift* field.
8. If you want to create a temporary assignment with shared availability, select *Employee has shared availability.*
9. Choose *Transfer.*
10. You return to the original shift plan.

Result

You have temporarily assigned an employee to another organizational unit.

If you enter a cost center, the relevant shift of the temporarily assigned employee is assigned to this cost center for this period.

If you have specified that the employee has shared availability, either organizational unit can schedule him/her until one of the units has assigned a requirement to the employee. He/she is then locked from further scheduling.

Availabilities in Shift Plans

Use

There is an additional line in both the target and actual plans that you can use to display availabilities.

Shifts or shift times indicated as availabilities are then displayed in this line.

Features

You can use the *Shift details* dialog box to define the length of availabilities in both the shift plan and the day view, which allows you to define user-specific availability intervals.

The abbreviation used for the availability is then highlighted in the shift plan.
This indicates that the availability interval has been changed.

You can choose to hide or show the line used for availabilities.

Completing Target Plans

Use

A shift plan is completed only when all requirements are fully covered. After completion, the target plan becomes the actual plan, remaining locked from further processing. The target plan then becomes the actual plan.

If changes or additions to the target plan are still required, the target plan might need to be completely or partially deleted.

When you save the shift plan, all of the data defined in the plan is transferred to time recording automatically by the system. This data can then be used in time evaluation.

Procedure

Completing Target Plans

1. Start Shift Planning [Page 97].
2. Edit the target plan.
3. Choose *Target plan* → *Complete*.

   The target plan is now saved as the actual plan, that is, you can only display (you cannot edit) the target plan from now on. Any changes to the target plan must be made in the corresponding actual plan. Otherwise, you must first undo completion of the target plan in the actual plan.

Result

You have completed the target plan. You can call it up as an actual plan, and make short-term changes there. You can also undo completion of the target plan if you wish.

For more information, refer to Undoing Completed Target Plans [Page 136].

Undoing Completed Target Plans

Use

If changes or additions to the target plan are required, the target plan might need to be completely or partially deleted.

Procedure

1. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Shift planning* → *Undo completed target plan.*

   The *Undo Completed Target Plan* screen appears.

2. Choose the object type of the target plan to be deleted.
3. Choose the object ID of the target plan to be deleted.

   Use the possible entries function to find the appropriate object ID for the selected object type.

   If you know neither the object type nor the object ID, you can still locate the target plan to be deleted in the *Search term* field.

5. Enter the desired reporting period.
6. Choose *Execute*.

   The *Undo Completed Target Plan* screen appears.
   All entries belonging to the completed target plan in database table *PSOLL* are now displayed.

7. Choose *Edit* → *Undo completed target plan*.

Result

The data for the completed target plan for the selected time period has now been deleted.

Reporting

Use

With this function, you can execute various reports. In this way, current data and time information is made available to you, and facilitates shift planning.

Prerequisites

To evaluate employee attendances, you must complete the *Set Up Assignments As Simulated Attendances* in the IMG for *Shift Planning*.

Features

The following functions are available in the shift plan to support evaluation of time information:

- Personal Shift Plans
- Attendance List
- Temporary Assignment List

Activities

1. Select the desired reporting function.
2. Specify the desired reporting criteria.
3. Start the report.

Time Statements

Use

The time statement list is available in both the target and actual plan during the entire planning phase.

The time statement evaluates all time data in a simulated manner, and displays the results in the form of a list.

In this way, you have permanent access to current personal and time data that is relevant to the planning phase.

You can use the Form Editor to edit the time statement list, which you can then send to your employees to provide them with information on their working times.

In the Form Editor, you can specify which of the evaluated time information is to be displayed as a time statement.

You specify which time information is evaluated in the IMG for *Time Evaluation* under *Evaluations and the Time Management Pool → Time Statement Form*.

Personal Shift Plans

Use

You can call up a report for a specified period, which evaluates and displays an employee shift plan.

This report contains the following data:

- Day
- Date
- Shift Abbreviation
- Shift Name
- Shift Time

Procedure

1. From the *SAP Easy Access* menu, choose *Human Resources* → *Time Management* → *Shift Planning*, and then *Information System* → *Display personal shift plan.*

   The *Display Personal Shift Plan* screen appears.
2. Enter the employee personnel number that is to be used in the report.
3. Define the desired reporting period.
4. Choose *Execute.*

Result

A list appears detailing the shifts assigned to an employee for the specified period.

Displaying Personal Shift Plans

Use

You can display the personal shift plans for an employee.

Procedure

1. Start Shift Planning [Page 97].
2. Select the line for the employee whose personal shift plan you want to display.
3. Choose *Reporting* → *Personal shift plan*.

   The *Personal Shift Plan: Overview Screen* appears.
4. Choose *Back* or *Cancel* to exit the screen.

   The original shift plan reappears.

Result

The personal shift plans of the selected employees are displayed.

Attendance List

Use

You can request an evaluation that displays all employees assigned to shifts. This evaluation contains the following data:

- Day
- Date
- Names of the employees
- Organizational unit
- Shift abbreviation
- Shift times

You can restrict the evaluation to individual days of the shift plan, or for all of the days in a shift plan.

Procedure

1. Choose *SAP/R3* → *Human resources* →*Time management* → *Shift planning*.
2. Choose *Reporting* → *Attendance list*.

   The *Attendance List*: *Overview* screen appears.
3. Enter the object I.D. that is to be evaluated.
4. Define the desired reporting period.
5. Choose *Execute.*

An evaluation of all employees assigned to requirements appears in the form of simulated attendances.

To find details such as the *original shift* of an employee, choose *Detail View.*

Temporary Assignment List

Use

You can also access evaluated planning data such as the *personal work schedule* or the *attendance list* outside of a shift plan. The temporary assignment list is now also included in these evaluations.

When you call the *temporary assignment list*, the *evaluation of temporary assignments* report (RHSP_TEMP_ASSIGNMENT) is run. This report then evaluates and displays the existing temporary assignments of all employees in any organizational unit.

Features

The temporary assignment list provides you with data such as:

- The organizational units for which the report was run
- All employees in the evaluated organizational unit who have been temporarily assigned during the period of the evaluation
- The organizational unit to which the employees have been temporarily assigned
- Cost center information
- Whether the temporary assignment is exclusive, or whether it indicates that an employee has shared availability
- Length (duration) of the temporary assignment

You can compile the temporary assignment list in various display variants, to ensure that you receive all the required, user-specific information.

Displaying Temporary Assignment Lists

Use

You can request an evaluation that displays all employees assigned to shifts. This report contains the following data:

- Reporting period
- Name of the evaluated organizational unit
- The organizational unit to which the employee has been temporarily assigned
- The cost center of the organizational unit, to which the employee has been temporarily assigned
- Temporary assignment period in hours
- Shift times

You can restrict the evaluation to individual days of the shift plan, or include all of the days in a shift plan.

Procedure

6. Start Shift Planning [Page 97].
7. Choose *Reporting* → *Temporary assignment list*.

   The *Temporary Assignment List* screen appears.
8. Enter the desired object type.
9. Enter the object I.D. that is to be evaluated.
10. Define the desired reporting period.
11. Choose *Execute.*

An evaluation of all employees assigned to requirements appears in the form of simulated attendances.

To find details such as the personnel number, original shift or information on the shared availability of an employee, choose *Settings* → *Display variant* → *Current*.

Actual Plans

Definition

The *Actual Plan* consists of entries made in the target plan, as well as any entries differing from it. When you complete the target plan, entries from the target plan are transferred automatically to the actual plan by the system. You must manually transfer any data differing from the target plan to the actual plan.

Then, when you save these entries, all data relevant for time evaluation and time accounting is transferred automatically to the relevant component. When you save the target plan, time data is transferred to *SAP Time Recording*, thus, it is not necessary to create an actual plan.

Time Data Recording and Administration

Purpose

With the *Time Recording and Administration* component, you can record and manage time data effectively and efficiently. This component provides you with a comprehensive and effective business concept and related processes for manual and automatic recording of personnel times. Time recording allows you to enter employee time data for working time, leave, business trips, and substitutions using different methods. This data can be entered as clock times or in hours and can contain account assignment specifications for other SAP applications.

Implementation Considerations

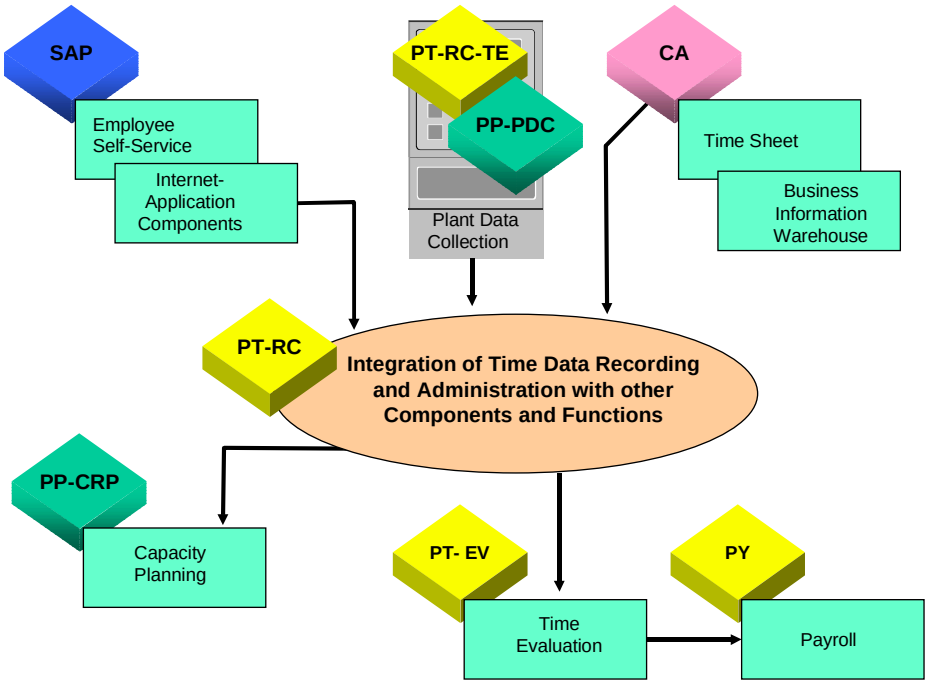
By integrating the *Time Data Recording and Administration*, you can carry out comprehensive recording, management, and evaluation of all work-related data for your employees. You can set up all types of working time schedules, from flextime to normal working time and shift operations, and in this way, achieve the highest flexibility to support today's working times.

By recording time data in a decentralized location, the time spent carrying out these routine activities can be put to better use, allowing your human resources are able to perform other time management tasks.

See also the sections on the Time Manager's Workplace [Page 820].

Before you start working with the Time Management component, you should have a basic understanding of HR master data, general procedures in HR, as well as the work schedule concept.

Integration



Possible Integration with Other Human Resources Components

Desired Function	Required Component
Evaluating an employee's working times	Time Evaluation (PT-EV)
Running the payroll for an employee	Payroll (PY)
Planning and recording working times	Shift Planning (PT-SP)

Possible Integration with Other SAP Components

Desired Function	Required Component
Recording working times using external time recording devices	Plant Data Collection (PP-PDC)
Cross-application time recording for internal and external employees in Time Management	Cross-Application Time Sheet (CA-TS)
Employees recording their own working times	Employee Self-Service
Display and overview of an employee's shift plan	Internet Application Component
Determining an employee's availability for capacity planning and distribution of requirements	Capacity Planning (PP-CRP)
Summary of features, indicators, and units for data requirement and processing to facilitate decision-making.	Business Information Warehouse (CA-BW)

By integrating Time Data Recording and Administration with other components and functions, various divisions of your enterprise can have ready access to essential additional information. Similarly, *Time Management* also accesses additional information from these divisions, thus making the most current and relevant data from *Controlling* and *Logistics* available for the *Time Management* components.

Combining the *Time Data Recording and Administration* and *Time Evaluation* components ensures an optimal calculation basis. If certain times are to be paid differently, you can set up premiums, alternative payscales and so on, in the system. A different payment is then calculated if you assign an employee temporarily to a different job or position. The employee then receives any pre-defined payments, wages, premiums, and so on, that are assigned to this alternative job or position.

Features

The *Time Data Recording and Administration* component supports the following methods for recording time data:

Recording Exceptions to the Work Schedule

If you use this method, only time data that is different to the specifications in the employee's assigned work schedule is recorded. Here you can record current employee data such as an employee's illness, schedule substitutions, and make deductions from employees' annual leave.

Additional Recording of Actual Times

In this method, all of the employee's attendance times (actual times) are recorded, as well as any exceptions to the work schedule.

You can record actual times in one of two ways:

- Automatic Recording

  The actual times are electronically recorded at front-end time recording terminals and transported to the HR system during this process.

  For information on the special procedures for correcting and maintaining time events, see Personnel Time Events [Page 351].

- Manual Entry

  In this process, actual times are manually recorded and maintained using the *Attendances* (2002) and *Absences* (2001) infotypes.

It is not important here whether you record only exceptions to the work schedule, or also your employees' actual working times manually or electronically. The same procedures are used for both.

Time Management Infotypes

Planned Working Time (Infotype 0007)

Definition

In this infotype, you define when and where an employee works within your enterprise on a daily basis. In addition, you use the infotype to determine whether the employee's time data is evaluated by Time Evaluation [Page 398].

Use

By assigning a work schedule rule [Page 37] in the *Planned working time* infotype (0007), you ensure that the system can determine the employee's personal planned working time. You can change the planned working time determined by the system to suit your requirements. For example, you can use an existing full-time work schedule rule as the basis for defining a special provision for a part-time employee. The planned working time defined for the full-time employee is reduced to the percentage the part-time employee must work.

If you want an employee's time data to be processed by *Time Evaluation*, you must specify the relevant processing type in the *Time Management status* field.

You can also determine the view for calculating weekly overtime. Any hours worked over the planned working time can then be evaluated as overtime.

Structure

The table below defines in more detail the options in the *Planned Working Time* infotype (0007):

Work schedule rule	In this field, you specify the work schedule rule you want the system to use to calculate the employee's personal planned working time.
Time Management status	If you want your employee's time data to be evaluated by *Time Evaluation*, you must set the *Time Management status*
Working week	In this field, you specify which working week (for example, 7 or 14 days, start of working week is a Sunday, and so on) is valid for the employee.
Part-time employee	Select this option if you want to reduce the planned working time of an existing full-time work schedule rule to the percentage specified in the *Employment percent* field. Also select this option if you have created a special work schedule rule for part-time employees. You can then use the part-time status of these employees as a criterion in statistical queries.
Employment percentage	If you want an employee's planned working time to be different to that determined by the work schedule rule (especially when reducing planned working time for part-time employees), enter the percentage, in relation to a full-time employee, of planned working time that the employee must work.
Daily/Weekly/Monthly /Annual working hours	The system calculates the specifications in these fields based on the work schedule rule you enter. If you change the value in one of the fields, the system automatically recalculates the values in the remaining fields.

Weekly workdays	If required, you can overwrite the number of workdays per week calculated by the system. This information is mostly provided for planning purposes and can be included in evaluations. It has no effect on how the planned working time is structured.
Dynamic daily work schedule	This option is available when you select the *Part-time employee* option and choose *Enter*. If you choose this option, the system reduces the planned working time determined by the work schedule rule to the percentage you enter in the *Employment percent* field. When calculating an employee's new working time, the system uses the specifications from the daily work schedule for the work schedule rule. The system takes the start of work time from the daily work schedule as its starting point and, taking into account the break schedule, adds the new number of planned hours.
Minimum and maximum working hours per day	This option is available when you select the *Part-time employee* option and choose *Enter.* The specifications you make in these fields are optional. Any values you enter can be used in *Time Evaluation* but have no influence on an employee's daily work schedule. If you enter values in these fields, you must also select the *Dyn. daily work schedule* option.

You can also set up this infotype to include the *Additional Time ID* field. This indicator is a special customer-specific ID that can be individually defined in *R/3 Payroll*. This ID is not used in the standard SAP System. If you would like to use this field, see Screen Control for Infotypes [Ext.].

Integration

Changes made to planned working time affect *Time Evaluation* and consequently *Payroll.*

For more information, see:

Maintaining Planned Working Time for Full-Time Employees [Page 151]

Maintaining Planned Working Time for Part-Time Employees [Page 152]

Maintaining Planned Working Time for Full-Time Employees

Procedure

1. Choose *Time management* → *Administration* → *Time data* → *Maintain*.

   The *Maintain Time Data* screen appears.

2. Enter the personnel number you require, the period, and the *Planned Working Time* infotype (0007).

3. Select a processing mode.

   The *Planned Working Time* screen appears.

4. Check the validity period of the record.

5. Enter a *work schedule rule* and choose *Enter*.

   Use the possible entries option to obtain a list of work schedule rules compatible with the organizational assignment of the selected employee.

   The SAP System fills the *Daily/Weekly/Monthly/Annual working hours* fields in accordance with the information stored in the work schedule rule.

6. If you want the employee's data to be processed by *Time Evaluation*, specify the relevant processing type in the *Time Management status* field.

   If you want to maintain the *Planned Working Time* infotype (0007) for part-time employees, see Maintaining Planned Working Time for Part-Time Employees [Page 152].

7. Save your entries.

Result

You have now stored planned working time data for a full-time employee.

Maintaining Planned Working Time for Part-Time Employees

Use

Instead of creating a separate work schedule rule [Page 37] for each part-time employee, you can use the *Dynamic Daily Work Schedule* function when you maintain the *Planned Working Time* infotype (0007).

If you select the *Dyn. daily work schedule* option:

- The SAP System reduces the planned working time determined by the work schedule rule to the percentage you enter in the *Employment percent* field. The system uses the start of work time from the full-time daily work schedule for the work schedule rule as the start of the reduced planned working time. The end of work time from the daily work schedule is then brought forward in accordance with the percentage you specify.
- The break times defined in the full-time daily work schedule are transferred to the new working time interval for part-time employees.
- You can specify the minimum and maximum number of hours to be worked each day, week, month, and year in the relevant fields. These specifications can be queried in *Time Evaluation*.

  If you have created separate work schedule rules for your part-time employees, maintain the *Planned Working Time* infotype (0007) for these employees as you would for full-time employees. We recommend you select the *Part-time employee* option if you do this. This information can then be used at a later time, for example in statistical evaluations.

Procedure

1. Proceed as described in steps 1 to 6 of Maintaining Planned Working Time for Full-Time Employees [Page 151].
2. Select the *Part-time employee* option and choose *Enter.*

   The system makes the *Dyn. daily work schedule* option and the fields for entering minimum and maximum daily, weekly, monthly, and annual working hours ready for entry.
3. Enter the *employment percentage* you require (for example 50%) or a number of hours in one of the *Working hours* fields.

   The *Weekly workdays* option is not taken into account when creating a dynamic daily work schedule.
4. Select the *Dyn. daily work schedule* option and choose *Enter.*

   The system calculates the missing values for the *Employment percentage* and *Daily/Weekly/Monthly/Annual working hours* fields.

5. If required, you can set the minimum and maximum working hours for each day, week, month, or year.
6. Save your entries.

Result

You have now specified the planned working time for a part-time employee.

Time Recording Information Infotype (0050)

Definition

Infotype 0050 is only used if employee time data is accounted using the time evaluation program.

In infotype 0050, you can enter master data for employees who record their clock-in/out times at a time recording terminal and control data for time evaluation. You must maintain this infotype for all employees who take part in time recording.

Before the time evaluation program can be run for a particular employee, you must specify the *Time Management status* in the *Planned working time* infotype (0007). Otherwise the system cannot account the employee's time data with the time evaluation program.

Structure

Time ID

You can store time ID data for an employee here. This data includes the version number, which can be used to assign the employee the same ID number if he or she has lost the ID card.

Interface data

Interface data comprises information required by the time recording terminals.

You must enter the *subsystem grouping* for employees who clock in/out at a time recording terminal. This field specifies the time recording terminals to which an employee's mini-master records are downloaded.

Time Variables

Here you can set special indicators that can be queried in time evaluation. These indicators are user-definable and can be queried and processed in user-specific personnel calculation rules.

See also:

Maintaining Time Recording Information [Page 155]

Maintaining Time Recording Information

Use

In the *Time Recording Information* infotype (0050), you can store all master data that is relevant for working with time recording systems, and control data for time evaluation.

Infotype 0050 must be maintained for all employees whose attendance times are recorded at a time recording system.

Procedure

1. Select the *Time Recording Information* infotype (0050).
2. Enter a validity period.
3. Select a processing mode.

   The *Time recording information* screen appears.
4. Enter the employee's time recording ID card number and the version number, if applicable.
5. Make entries in the fields under the heading *Interface data*. In this area, you store all information that is relevant to the time recording terminals.

   The *Grouping for subsystem connection* field determines the time recording terminals to which the employee's mini-master records should be downloaded. You must make an entry in this field.
   The value for the grouping is usually 001.
6. Enter the specifications on the time variables, if required.

   You can define the fields in this group according to your specific requirements. Find out how the fields are used in your enterprise.
7. Save your entries.

Result

You have maintained time recording information for an employee.

Maternity Protection Infotype (0080)

Definition

The *Maternity Protection* infotype (0080) is an enhancement of the *Absences* infotype (2001). The *Maternity Protection* infotype (0080) enables you to record all absences related to maternity protection and parental leave. You can only use this infotype for female employees.

If you want to enter parental leave for a male employee, use the standard *Absences* infotype (2001).

Absences entered in *Maternity Protection* are also stored automatically in the *Absences* infotype.

Use

Default Values for Maternity Protection

You can make settings for the *Maternity Protection* infotype in Customizing. The standard R/3 System proposes certain absence types and calculates the related periods when you enter the expected and actual date of delivery and the type of birth. You can overwrite these default values or add other absence types, as required.

A special feature of this infotype relates to the validity period of records. The system automatically overwrites the “from” and “to” dates according to the specified periods.

In Customizing, you can specify the dates up to which an employee can apply for parental leave. If these dates are exceeded, the system does not permit you to enter the absence type.

See also:

Maintaining Maternity Protection and Parental Leave Data [Page 157]

Maintain Maternity Protection And Parental Leave Data

Use

The *Maternity Protection* infotype (0080) enables you to record all absences related to maternity protection and parental leave. If you create a record in this infotype, the system generates a corresponding absence record in the *Absences* infotype (2001).

If you lock a record in this infotype, however, the corresponding absence record in the *Absences* infotype is NOT locked automatically. You must indicate that you want the record locked in the *Absences* infotype as well.

You can only use this infotype for female employees. If you want to record parental leave for a male employee, use the *Absences* infotype (2001).

Maternity protection and parental leave both involve regulations and provisions specific to a particular company, collective agreement or country. As a result, you can make individualized settings in this infotype in Customizing. The length of time permitted for maternity protection and parental leave, as well as the application deadlines for parental leave, vary extensively.

Note: You should maintain all data that is connected to one birth in the same infotype record. To create a data record, complete the following three steps:

1. Notification of pregnancy to employer
2. Enter actual delivery date and recalculation periods
3. Enter parental leave

Notification of pregnancy to employer

Procedure

1. Choose the *Maternity Protection* infotype (0080).
2. Select a processing mode.

   The *Maternity Protection* screen appears.
3. Enter the expected delivery date. Choose *Enter*.

   The system calculates the periods automatically. However, you can overwrite the default values.
4. If the system does not propose default values, enter the appropriate absence types manually.
5. The validity period of the record is adjusted according to the periods calculated.
6. Save your entries.

Result

You have entered data for the *Notification of Pregnancy to the Employer*.

Enter Actual Delivery Date and Recalculation Periods

It is unlikely that expected and actual delivery dates are the same. The type of birth (twins, multiple birth and so on) can also influence the length of absence.

Procedure

1. Choose the *Maternity Protection* infotype (0080).
2. Enter the validity period.
3. Choose *Change*.

   The *Change Maternity Protection* screen appears.
4. Enter the *Actual delivery date* and the *Type of birth*. Choose *Enter*.

   The maternity protection and parental leave periods are recalculated.
5. Correct the new periods, if necessary.
6. Choose *Recalculate absences*.

   This function is also used to recalculate the absence records in the *Absences* infotype (2001). You must carry out this function in order to prevent data inconsistency.
7. Save your entries.

Result

You have now stored the actual periods for maternity protection.

Entering Parental Leave

Procedure

1. Choose the *Maternity Protection* infotype (0080).
2. Choose *Change*.
3. Enter the periods for parental leave.

   If no default values are displayed, choose the appropriate absence type and enter the periods.
4. Choose *Recalculate absences*.
5. Save your entries.

Result

You have now entered parental leave data for an employee.

Military Service Infotype (0081)

Definition

The *Military Service* infotype (0081) is an enhancement to the *Absences* infotype (2001). You use this infotype for absences related to military and civil service.

Absences entered in *Military Service* are automatically stored in the *Absences* infotype. You can maintain the absences further in the *Absences* infotype.

Use

Default Values for Military Service

Choose the *Military Service* infotype (0081).

1. The standard R/3 System includes certain default absence types. If you maintain the absence data, the system automatically changes the validity period of the infotype record.
2. You assign absence types to, and create absence periods for, *Military service types* in Customizing. Every military service type contains different duration periods for an absence. If these periods are exceeded, the system displays a warning, but processing continues.

   Periods can also be stored for *Absence types* (subtypes of the *Absences* infotype). These periods can not be exceeded.

   You can set up the system in Customizing so that absences in this infotype can only be entered for male employees, or for both male and female employees.

See also:

Maintaining Military Service Data [Page 160]

Maintain Military Service Data

Use

You can use the *Military Service* infotype (0081) to record all absence types that have some connection to military or non-military service.

If you create a record in this infotype, the system also generates a corresponding absence record in the *Absences* infotype (2001). If you lock a record in this infotype, however, the corresponding absence record in the *Absences* infotype is NOT locked automatically. You must indicate that you want the record locked in the *Absences* infotype as well.

When you customize the system, you can store highly specific regulations for *military and non-military service.* You can also define specific periods for this infotype in Customizing. You can also determine whether *Absence records* in this infotype can be created for just male employees, or for both male and female employees.

Procedure

1. Choose the *Military Service* infotype (0081).
2. Select a processing mode.

   The *Military Service* screen appears.
3. Enter the data required in the appropriate fields.
4. Choose a processing mode.
5. Enter the absence periods.

   If no default values are displayed, choose the appropriate absence type.

   According to the *Type of military service*, you can determine certain validity periods for this infotype in Customizing. If these periods are exceeded, the system displays a warning, but processing continues.
   Periods can also be stored for *absence types* (subtypes of the *absences* infotype). These periods can not be exceeded.
6. Save your entries.

Result

You have now entered data on military service for an employee.

Absences (Infotype 2001)

Definition

Absences are times when employees are not at work. Employees are absent if their planned working time, as stipulated in their work schedules, is not fully worked. Types of absences include:

- Leave
- Illness
- Health spa
- Lateness

Use

National Features

Country-specific features must be taken into account for some absence types. You can either enter these absence types in the *Absences* infotype (2001) or in special types of infotypes:

- Maternity Protection infotype (0080) [Page 156]
- Military Service infotype (0081) [Page 159]

You can also use various infotypes to store country-specific features for recording incapacity to work for Germany, France, the Netherlands, Austria, and Great Britain/Ireland. These are:

- Absences (Infotype 2001): National Features for Germany [Page 172]
- Absences (Infotype 2001): National Features for France [Page 173]
- Absences (Infotype 2001): National Features for the Netherlands [Page 174]
- Absences (Infotype 2001): National Features for Austria [Page 175]
- Absences (Infotype 2001): National Features for Great Britain/Ireland [Ext.]

Structure

Absences are divided into absence types. An absence type is a subtype of the *Absences* infotype (2001).

Absence groups

The *Absences* infotype (2001) includes a special feature: Various entry screens for subtype groups are activated. These screens enable you to enter specific data for each absence. The standard R/3 System includes entry screens for:

- ***For general absences***

  This entry screen is used for all absences that do not require any special processing (that is, special leave for relocation). The system displays payroll hours and days on this screen.

- ***For absences with quota deduction***

Absences (Infotype 2001)

This entry screen can be used for the *Leave* and *Time off for overtime* leave types. It has special fields and additional screens which allow you to check the quota deduction. When you enter an absence type with quota deduction, the system checks the existing quotas. The absence record can only be stored if sufficient quotas are available. If sufficient quota is available, the system updates the quotas automatically. In Customizing you determine which absence types you want to be deducted from which absence quota types.

- For absences relating to an incapacity to work

  This screen is used for all absence types that are related to automatic continued pay. The screen includes special fields and additional subscreens to store and check data for continued pay and sick pay supplements. The system also displays payroll hours and days here.

Clock times or a number of hours

Depending on the settings in Customizing, absences can be recorded with clock times (that is, 10:00 a.m. - 12:00 p.m.), or by specifying a number of hours only (that is, 2 hours).

Whether you record hours or clock times for an employee depends on the following:

- Employee's *Time Management status* in the *Planned Working Time* infotype (0007)
- Work schedule rule assigned to the employee in the *Planned Working Time* infotype (0007)
- Employee's assigned personnel area, subarea, and so on in the *Organizational Assignment* infotype (0001)

Whether or not the system generates clock times automatically also depends on the settings made in Customizing.

Contact your system administrator about the regulations that apply to absence recording in your enterprise.

Default Values for Absences

When you enter absence types, the system automatically calculates the number of absence days. The employee's planned working time, as well as any days off, are taken into account.

Depending on settings made in Customizing, either a warning or error message is displayed if the begin or end date, or validity period, of an absence record falls on an employee's day off.

Integration

You can use the *Absences* infotype (2001) to transfer costs and work performed data to the *R/3 Accounting* and *Logistics* components.

See also:

Maintaining Partial Day Absences [Page 164]

Maintaining General Absences [Page 166]

Maintaining Absences with Quota Deduction [Page 168]

Maintaining Incapacity to Work in the Absences Infotype (2001) [Page 170]

Maintain Partial-Day Absences

Use

In *SAP Human Resources (SAP HR)*, partial-day absences are absence periods within the employee's planned working time on any given day. In other words, the employee is absent during part of his or her planned working hours, but is at work the remainder of the scheduled time.

The absence types that are stored as partial-day absences are specified in the settings made in Customizing.

Partial-day absences include:

- Doctor's appointment
- Official absence due to temporary reassignment
- Time off for overtime (time in lieu)

Procedure

1. Choose the *Absences* (2001) infotype and enter a permitted subtype or absence type for recording a partial-day absence.
2. Enter a time period.
3. Select a processing mode.
4. Check the validity period of the record.

   You can only enter partial-day absences for one day.
5. Specify the absence time or hours.
6. Choose *Enter*.

   When you enter absence hours, the system automatically calculates the missing clock-in and/or clock-out times according to the settings made in Customizing. The system also references the planned working times in the daily work schedule and takes any substitution data into consideration.

   If you enter times that are outside planned working time, the system automatically corrects them.
7. To integrate the absence data in other SAP System components, maintain the *Accounting/Logistics* specifications as required.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].
8. Save your entries.

Result

You have now recorded a partial-day absence for the employee.

Maintain General Absences

Use

In *SAP Human Resources (SAP HR)*, general absences are absences that do not require any special processing.

General absences include:

- Time off for marriage
- Illness without continued pay (or short-term disability, or STD)
- Unpaid leave

The following section describes the maintenance process for full-day absences. Special functions are activated when you maintain partial-day absences [Page 164].

Procedure

1. Choose the *Absences* (2001) infotype and enter a subtype or absence type for a general absence.
2. Enter a time period.
3. Select a processing mode.
4. Check the validity period of the record. Correct it if necessary.
5. Choose *Enter*.

   The system automatically calculates the entries in all of the fields on the screen, except the *Time* field.

   Depending on the settings made in Customizing, the system issues either a warning or error message if the “from” or “to” date of the record falls on an employee’s day off.
6. To integrate the absence data in other SAP System components, maintain the *Accounting/Logistics* specifications as required.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] section.
7. Save your entries.

Result

You have now recorded a general absence for the employee.

Maintaining Absences with Quota Deduction

Use

Absences with quota deduction are absences that are deducted from an employee's absence entitlement. You can only record these absences for employees who have sufficient absence quota in the *Absence Quotas* infotype (2006).

You can use a special entry screen to record absences with quota deduction. Once you have saved the absence, the employee's available entitlement in the *Absence Quotas* infotype (2006) is automatically reduced.

Absence types with quota deduction include:

- Leave
- Time off for overtime (time in lieu)

Procedure

The following section describes the maintenance process for full-day absences. Note that special functions are activated when Maintaining Partial-Day Absences [Page 164].

1. Choose the *Absences* (2001) infotype and enter a subtype or absence type for an absence to be recorded with quota deduction.
2. Enter a time period.
3. Select a processing mode.
4. Check the validity period of the record and change it, if required.
5. Choose *Enter*.

   The system automatically calculates the entries in all of the fields on the screen, except the *Time* field.

   - Depending on the settings made in Customizing, the system issues either a warning or error message if the “from” or “to” date of the record falls on an employee’s day off.
   - Quota already used is provided in the corresponding field. If the employee does not have enough quota remaining, the system displays an error message.
6. To integrate the absence data in other R/3 System components, enter the *Accounting/Logistics specifications* as required.

For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682].

7. Save your entries.

Result

An absence with quota deduction is now recorded for the employee.

Maintain Incapacity to Work in the *Absences* Infotype (2001)

Use

In *SAP Human Resources,* an incapacity to work is an absence that requires a period for continued pay (short-term disability, or STD) and sick pay supplement to be entered, in addition to the actual absence periods.

The system automatically calculates the periods for continued pay and additional sick pay. The system uses the *Calendar days* of the absences as a basis for calculating these periods. The specifications made in the *Contract Elements* infotype (0016) determines the length of time an employee is allowed to receive continued pay and additional sick pay.

An incapacity to work includes:

- Illness with continued pay (STD)
- Health cure
- Occupational or industrial accident

The following section describes the maintenance process for full-day absences. Special functions are activated when you maintain partial-day absences [Page 164].

Procedure

1. Choose the *Absences* (2001) infotype and enter a subtype or absence type for an incapacity to work.
2. Enter a time period.
3. Select a processing mode.
4. Check the validity period of the record. Correct it if necessary.

   Depending on the settings made in Customizing, the system issues either a warning or error message if the “from” or “to” date of the record falls on an employee’s day off.
5. Choose *Enter*.

   The system automatically calculates the values of all essential screen fields.

   If necessary, you can overwrite the periods for continued pay (STD) and additional sick pay.

   When you undo any manual changes, you must first delete the fields that you have changed. Choose *Enter*. The system then recalculates the values.
6. Choose *Edit* → *Incapacity to work*.

The system displays a list of the illness records that are already entered for this employee. You can then determine whether certain previous illnesses are relevant for continued pay and additional sick pay.

Relationships between illness records can be indicated in the *Relationships* fields.

- If you have not linked the current record with another record in the *Relationships* field, the system displays a list of all illness records. If a link exists, only those records that are “related” are displayed.

7. To integrate the absence data in other SAP System components, maintain the *Accounting/Logistics* specifications as required.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].

8. Save your entries.

Result

You have now recorded an incapacity to work for the employee.

Absences: Features for Germany

Use of the *Relationships* fields

The first field (KENN1) is used to link related sickness records, i.e. successive absences due to the same illness. Any continued pay granted to an employee for a first illness can be taken into account for a second illness of the same type.

The second field (KENN2) links sickness records which are not based on the same illness, but should still count towards the amount of continued pay already granted.

The employee's health insurance fund can tell you which previous illnesses should be counted.

In order to link illnesses, codes are assigned to identify the individual sickness records.

Incapacity to work	From	To	Calendar days	CP days	KENN1	KENN2
A	12/18/96	01/17/96	**31**	42	1	1
B	04/22/96	05/10/96	19	42	2	2
A *	05/03/96	05/30/96	20	42**-31=11**	1	2

* This case involves a subsequent illness. The continued pay already granted is taken into account.

You define the periods during which sickness records can be linked when you customize the system.

Work incapacity for periods of less than one workday

In the standard SAP system, no end date for continued pay is defined for periods of work incapacity of less than one workday.

Absences: Features for France

Use of the *Relationships* fields

The first of the two fields (KENN1) is used to link related sickness records, that is, successive absences due to the same illness.

The second field (KENN2) designates illnesses that are not granted a sick leave grace period. In this case, the system evaluates the illness without generating an unpaid grace period. All numerical entries are permissible.

Incapacity to work	From	To	KENN1	KENN2	Reaction of the personal calendar generator
A	12/18/95	01/17/96	1	1	No grace period
B	04/22/96	05/10/96			Grace period
A	03/01/96	03/05/96	1		Grace period

Absences: Features for the Netherlands

The *Illness* absence type (0200) of the Netherlands country version has the following special features.

Sickness tracking

In the *Illness reported on* and *Reported at* or *Date of confirmation* and *Time of confirmation* fields, you can enter when the employee informed his or her superior of the illness or accident and the end of the illness, as well as the superior's name.

If the employee's work capacity is limited following the illness or accident, you can enter this in the *Work capacity percentage* field.

1. If the illness is accident-related, you can jump from the *Absences,* infotype (2001) to the entry screen of the *Additional absence data* infotype (0082)*,* and maintain the data in the *Accident data* event type (0002)*.* Select the *Accident* field, and choose the menu path *Goto* → *Accident data*.
2. You can also enter additional illness data in the *Illness tracking* event type (0001) of the *Additional Absences* infotype (0082) by using the menu path *Goto* → *Monitor illnesses*. .

The *End of continued pay, End of sick pay supplement* and *Accountable days* fields are not used in payroll for the Netherlands.

Absences: Features for Austria

Use of the *Relationships* fields

The first field (KENN1) is used to link related periods of work incapacity which are connected to an industrial accident.

The second field (KENN2) is used to link all related sickness records, i.e. successive absences due to the same illness.

All numerical entries are permissible.

Attendances Infotype (2002)

Definition

You can use the *Attendances* infotype (2002) to store special attendances for employees.

In the *Human Resources (HR)* component, you can record attendances that define or add to an employee's monthly work schedule.

A typical attendance is a business trip. The employee is not at his or her normal workplace, but nonetheless is still working for the enterprise.

Attendances are divided into attendance types. Attendance types are subtypes of the *Attendances* infotype (2002).

Use

The *Absences* infotype (2001) also includes a special feature: Various entry screens for subtype groups are activated. These screens allow you to enter special data for these attendances. The standard R/3 System includes entry screens for:

- General Attendances

  This entry screen is used for all absences that do not require any special processing (business trips, for example). Payroll hours and days are also displayed here.

- Attendances with Quota Deduction

  This entry screen can be used for the *Attendance For Quota Days* attendance type. In addition, the screen includes special fields and additional subscreens to check quota deduction.
  When you enter an attendance type with quota deduction, the system checks the existing quotas. The attendance record only be stored if sufficient quotas are available. The system automatically updates the quotas.
  In Customizing, you can define the attendance quota types from which a particular attendance type is to be deducted.

When you enter attendance types, the system automatically calculates the number of attendance hours and days, taking the employee's planned working time and days off into account.

You can overwrite the *Hours* fields. Unlike absence times, attendance times can extend beyond an employee's daily planned working time.

Depending on the settings made in Customizing, absences can be recorded with clock times (that is, 10:00 a.m. - 12:00 p.m.), or by specifying a number of hours only (that is, 2 hours).

Whether you record hours or clock times for an employee depends on the following:

- Employee's *Time Management status* in the *Planned Working Time* infotype (0007)
- Work schedule rule assigned to the employee in the *Planned Working Time* infotype (0007)

- Employee's assigned personnel area, subarea, and so on in the *Organizational Assignment* infotype (0001)

Whether or not the system generates clock times automatically also depends on the settings made in Customizing.

Contact your system administrator to find out which regulations apply to the absence recording in your enterprise.

Payment Data

There are two methods of entering a payment that differs from an employee's normal payment resulting from a particular attendance in the system:

- Wage Type

  You can enter the payment for an attendance directly in the *Wage type* field. This field can then be queried in Payroll or Time Evaluation. This field is not used in the standard R/3 System.

- Different payment

  Choose *Goto* → *Different payment* to enter information for a different payment.

  – Assign a premium

  – Re-define a payment by assigning a pay scale group and level

  – Control payment by entering a different position

  – Add or deduct a specific amount using the "Extra pay indicator" and the "Valuation basis."

Integration of Data With Other R/3 Components

You can use this infotype to transfer data on costs and work performed to *R/3 Accounting* and *R/3 Logistics*.

See also:

Maintaining General Attendances [Page 178]

Maintaining Attendances with Quota Deduction [Page 180]

Maintain General Attendances

Use

The entry screen for general absences is used for attendances that are not deducted from a quota, such as business trips. You can check the accounting days and hours calculated for an attendance directly from the entry screen.

Procedure

1. Choose the *Attendances* infotype (2002).
2. Choose a subtype for a general attendance.
3. Enter a time period.
4. Select a processing mode.
5. Check the validity period of the record. Correct it if necessary.
6. Enter the duration of the attendance. Choose from the following options:
   - *Maintain Full-Day Attendances*

     If you do not want to enter any additional specifications, you can save the data record as it is.
   - *Maintain Partial-Day Attendances*

     To maintain partial-day attendances, enter either a time or a duration.

     If you only enter one clock time, the other clock time is determined from the specifications in the employee's personal work schedule.
     If you enter only one duration, the system calculates the attendance hours from the start of working time specified in the employee's daily work schedule, depending on the settings made in Customizing.
7. Set the previous day indicator [Ext.] if you want to assign the record to the previous day.
8. If necessary, you enter a different payment [Page 235].
9. To integrate the attendance data in other SAP System components, maintain the *Accounting/Logistics* specifications as required.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682].
10. Choose *Enter* and check the accounting days and hours.
11. Save your entries.

Result

You have now maintained a general attendance using the *Attendances* infotype (2002).

Maintaining Attendances with Quota Deduction

Prerequisite

Attendances with quota deduction are attendances that are deducted from an employee's attendance approval. You can only record these attendances for employees who have sufficient attendance quota in the *Attendance Quotas* infotype (2007).

You can use a special entry screen to record attendances with quota deduction. Once you have saved the attendance is saved, the employee's available entitlement is automatically reduced.

Attendance types with quota deduction include:

- Overtime hours
- Seminar/course/training

Procedure

1. Choose the *Attendances* infotype (2002).
2. Enter a subtype for an attendance with quota deduction.
3. Enter a time period.
4. Select a processing mode.
5. Check the validity period of the record. Correct it if necessary.
6. Enter the duration of the attendance. Choose from the following options:
   – *Maintain Full-Day Attendances*

     If you do not want to enter any additional specifications, you can save the data record as it is.

   – *Maintain Partial Day Attendances*

     To maintain partial-day attendances, enter a clock time or a number of hours.

     If you enter only the start time or only the end time, the missing time is determined from the specifications in the employee's personal work schedule.

     If you enter only a number of hours, the system calculates the attendance hours from the start of working time specified in the employee's daily work schedule. This depends on the settings made when the system was customized.
7. Set the previous day indicator [Ext.] if you want to assign the record to the previous day.
8. Choose *Enter* and check the value in the *Quota used* field.

Quota deduction is calculated in either hours or days depending on the settings made in Customizing. In some cases, an entire day could be deducted from an employee's quota, when only a four-hour attendance is entered.

1. Enter specifications for a different payment [Page 235] as required.

9. To integrate the absence data in other R/3 System components, maintain the *Accounting/Logistics* specifications as required.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682].

10. Save your entries.

Result

You have now maintained an attendance with quota deduction using the *Attendances* infotype (2002).

Substitutions Infotype (2003): Changes to Planned Working Time

Definition

A substitution is generally understood to be a temporary replacement for an employee who is absent. In the business world, a substitution also means assigning another person to take over the position and associated tasks of an absent colleague.

The term *substitution* is interpreted even more broadly in *SAP Human Resources* (HR). A substitution is not only the temporary replacement of an absent employee, but most importantly, involves a change to the employee's planned working time.

Use

The *Substitutions* infotype (2003) includes the following functions:

- Assigning planned working times that deviate from those specified in the employee's personal work schedule.

  Example: During a certain period, an employee is required to perform tasks that involve a different working time.

- Different cost assignment

  Example: An employee is required to perform a task involving costs that are not assigned to his or her master cost center.

- Assigning an employee to a different position for a certain period of time.

  Example: An employee with a *Machine Inspection* position substitutes for someone whose position is *Warehouse Management*.

- Example: You can assign a different payment for a temporary activity based on an existing position.

  An employee is temporarily assigned an activity that is subject to a higher rate of payment. You assign this employee to a position with a higher payment for the applicable period.

Types of Substitution

Except for position substitutions, all types of substitution constitute a change to the employee's personal work schedule, as the system overwrites the original work schedule when you enter a substitution. Therefore, on any one day, the system can only take one substitution into account that changes the employee's planned working time.

By combining a position substitution with other substitution types, you can change both the employee's planned working time **and** payment details.
To prevent errors, you can set up an appropriate collision check in the corresponding Customizing steps in the Implementation Guide (IMG).

The following types of substitutions are available for recording substitutions.

Substitutions Based on a Daily Work Schedule

Use this function to enter deviations in your employee's work schedule that occur on a daily basis.

Use this substitution type instead of the substitution based on a work schedule rule if an employee is to be assigned a different work schedule for a short period of time only (one day, for example).

Substitutions Based on a Work Schedule Rule

Use this function to enter deviations in the employee's personal work schedule that last for several days.

This function is useful for temporarily assigning a different personnel subarea grouping, employee group or public holiday calendar to an employee.

Substitutions Based on Another Employee's Work Schedule Rule (Personnel Number Substitution)

Use this function to change your employee's work schedule rule by assigning him or her another employee's personnel number. The other employee's work schedule rule is now assigned to this employee.

This function is useful if an employee replaces an absent colleague over a fixed period, for example, or is to be assigned the same work schedule rule as another employee.

The employees performing the substitutions in this infotype are not automatically given the same authorizations assigned to the employee who is temporarily being replaced.

Substitutions Based on an Individually Defined Daily Work Schedule (Time Substitution)

Use this function to enter any kind of deviation to the employee's planned working time. You can do this by specifying the start and end of working times and breaks for each day of the substitution.

Use this function if your substitution is not based on either a specific daily work schedule or a work schedule rule.

Substitution Based On A Position

Use this function to specify a different payment for an employee over a certain period of time, based on the specifications for a different position. You can do this by assigning the position with the applicable rate of payment to the employee.

If you only enter the position, the planned working time does not change. The system does not overwrite the original planned working time of the employee performing the substitution.

You can combine the substitution based on a position with all other types of substitution, enabling you to take advantage of other variations of the substitution.

When recording both a position substitution and a time substitution, you can also specify a different payment for the time interval.

Substitutions Infotype (2003): Changes to Planned Working Time

An employee in your enterprise takes over a foreman's tasks on January 1, 1997, for a certain number of hours. The employee has a planned working time of 8:00 a.m. to 5:00 p.m. If you enter a combination of time substitution and position substitution from 8:00 a.m. to 12:00 p.m., the employee is paid a foreman's wages for these four hours, and then his or her normal wages from 12:00 noon to 5:00 p.m.

Payment Data

In addition to a substitution based on a position, there are two other methods of entering a different payment that results from a substitution in the system:

Substitution Type

The system enters a substitution type as a default value. You can overwrite this field with another substitution type.

The substitution type can be taken into account in personnel calculation schema *XT00* for payroll.
Only reduced hours substitutions are queried and valuated in time evaluation.

Different Payment

Choose *Goto* → *Different payment* to enter additional information for a different payment.

- Assign an additional premium
- Re-define a payment by assigning a pay scale group and level
- Control payment by entering a different position
- Add or deduct a specific amount using the *Extra pay indicator* and the *Valuation basis*.

  Position substitutions and work center substitutions are exceptions in this case.

Maintain Substitutions Based on Daily Work Schedules

Use

Use this function to record changes to an employee's planned working time that occur at short notice, and involve a full day. These changes to planned working time might involve the following:

- Working pattern in the work schedule only changes briefly
- Employee works according to a particular daily work schedule variant
- Substitutions on public holidays

For example, the daily work schedules "Early shift" and "Late shift" are already defined in your enterprise. You require a substitution for the late shift on January 21, 1997. You choose an employee who, according to his or her daily work schedule, is assigned to the early shift on January 21, 1997. If you assign the late shift to this employee, the system overwrites the employee's original planned working time for the day (early shift).

Result:

The employee now works the late shift on January 21, 1997.

You are not limited to only the break times specified in a daily work schedule. You can also specify break times that are independent of daily work schedules.

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.
5. In the *Daily work schedule* section, enter the daily work schedule to be used for the employee's substitution.

   If the employee is to work according to another Daily Work Schedule Variant [Ext.], you only have to complete the *Daily work schedule variant* field. The system then automatically assigns the appropriate daily work schedule.
6. Change the Day Type [Ext.], if required.

   By changing the day type, you can create a substitution record for a public holiday. To do this, overwrite the entry BLANK in the *Day type* field with a 0 (work/paid).

7. Enter a position if the employee is to be remunerated at the rate for a different position for the duration of the substitution.
8. Enter a different payment [Page 235], if required.
9. Maintain the cost assignment [Page 691], if required.
10. Save your entries.

Result

You have now maintained a substitution based on a daily work schedule.

For more information, see Determine Individual Break Times [Page 195].

Maintain Substitutions Based on Work Schedule Rules

Use

Use this substitution variant if an employee:

- Substitutes for a longer period
- Works according to the work schedule rule of another personnel subarea/employee subgroup grouping
- Works according to a different public holiday calendar

For example, one of your production plant employees in personnel subarea 0001 is to substitute for a colleague in personnel subarea 0002 in your branch office for a certain period. You assign the work schedule rule valid for the branch office to this employee for the duration of the substitution.

Result: Your employee works under the conditions that apply in the branch office in personnel subarea 0002 for the duration of the substitution. These working conditions may include a different public holiday calendar, different start and end times, breaks, and so on.

For long-term substitutions, it is more practical to assign the employee a new work schedule rule in the Planned Working Time infotype (0007) [Page 149].
The new rule must be compatible with the employee's organizational assignment (personnel subarea/employee subgroup grouping and public holiday calendar).

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.

To enter the required work schedule rule:

5. In the *Work schedule rule* section, enter the work schedule rule to be used for the employee's substitution.
6. Make entries in all relevant fields to ensure that the work schedule rule is unique.
7. In the *Same as personnel number*, enter a personnel number.

   Employee A is to work according to the work schedule rule of employee B. Enter the personnel number of employee B and confirm your entry.
   The system automatically completes the fields in the *Work schedule rule* section with

the applicable data from Employee B. For more information on personnel number substitutions, see Maintain Substitutions Based on Work Schedules [Page 189].

8. Enter a position if the employee is to be remunerated at the rate for a different position for the duration of the substitution.
9. Enter a different payment [Page 235] , if required.
10. Maintain the cost assignment [Page 691], if required.
11. Save your entries.

Result

You have now maintained a substitution based on a work schedule rule.

For more information, see Determine Individual Break Times [Page 195].

Maintain Substitutions Based on Work Schedules

Use

A personnel number substitution in the *SAP Human Resources (SAP HR)* component is a substitution based on another employee's work schedule rule. A personnel number substitution corresponds to the most general type of substitution, that is replacing a person who is absent. You can also use a personnel number substitution to assign an employee a different work schedule rule, that is, one that has already been defined for another employee.

- Your employee with the personnel number 1111 is to be absent over a certain period. The employee with the personnel number 2222 will substitute for him/her during this period. Assign employee 2222 the other employee's personnel number (1111) for the relevant period.

  Result:
  Employee 2222 works according to employee 1111's work schedule for the duration of the substitution.

- The department of the employee with the personnel number 1111 is to be assigned another employee with the personnel number 2222 for a certain period of time. Employee 2222 will work according to the same work schedule as employee 1111 for this period. Assign him/her the personnel number 1111.

  Result: Employee 2222 works according to employee 1111's work schedule for the duration of the substitution.

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.
5. In the *Work schedule rule* section, enter the personnel number of the employee for whom the selected employees are to substitute.

   Authorization profiles assigned to the employee being substituted, for separate functions or processes or for other SAP applications, are not transferred to the employee performing the substitution.
6. Enter a position if the employee is to be remunerated at the rate for a different position for the duration of the substitution.
7. Enter a different payment [Page 235], if required.
8. Maintain the cost assignment [Page 691], if required.

9. Save your entries.

Result

You have now maintained a personnel number substitution.

For more information, see Determine Individual Break Times [Page 195].

Maintain Substitutions Based on Individual Daily Work Schedules (Time Substitution)

Use

This substitution variant allows you to store individual planned working times and break times for a substitution.

Use a time substitution if you do not want to set up a substitution based on a daily work schedule and there is no work schedule rule to access.

This time substitution, as with all substitutions, overwrites the employee's personal work schedule.

For example, an employee has a planned working time of 8:00 a.m. to 6:00 p.m. A substitution is entered for the employee from 8:00 a.m. to 4:00 p.m. on January 21, 1997. The system overwrites this employee's personal work schedule with the substitution data.

Result:

The employee's planned working time on January 21, 1997, is reduced, but the employee receives the same payment for the day.

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.
5. In the *individual working time* section, enter the time period in which this substitution is to take place.
6. Set the Previous Day Indicator [Ext.], if you want to assign the record to the previous day.
7. Specify any breaks. Determine the break schedule according to one of the following options:
   - Enter a break schedule to define when an employee is permitted to take breaks.
   - Enter individual break times. Specify whether employees should be paid when they are on breaks, and if so, whether for the entire break, or only part of it.

     For more information about break times, see the Determine Individual Break Times [Page 195] section.
8. Overwrite the Daily Work Schedule Class [Ext.], if necessary.

The *Daily Work Schedule Class* is transferred by the system from the daily work schedule originally assigned to the employee. You can also overwrite the class.

For example, an employee does not normally work on the weekend. You want to record a time substitution for this employee for a Sunday.
The system sets the daily work schedule class 0 in the field. The daily work schedule class 0 is defined in your enterprise as *off*. In this way, your entries are not taken into account in time evaluation or payroll.
Change the daily work schedule class accordingly.

9. Enter a different payment [Page 235], if required.
10. Maintain the cost assignment [Ext.], if required.
11. Save your entries.

Result

You have now recorded a substitution based on an individually defined daily work schedule.

Maintain Substitutions Based on Positions

Use

This substitution is used if an employee is to be paid at the rate of another position for a certain period of time.

You can use this substitution separately, or in combination with all other substitutions in this infotype. By entering a time interval in the *According to different payment* section, you limit the alternative payment for this employee during this position substitution to the exact time interval entered.

In combination with a Substitution Based on an Individual Daily Work Schedule [Page 191], you can create an hourly substitution.

An employee in your enterprise takes over a foreman's tasks for a certain period of time. You assign the foreman position to the employee so that he or she is paid accordingly.

Result: The employee's working time is still based on the regular daily work schedule, but the employee's payment is higher (in line with the foreman position).

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.
5. In the *According to different payment* field, enter the position for which the employee is to substitute for the specified period of time.
6. Enter an additional substitution variant if you want to record the substitution in combination with another substitution variant.

   The employee's normal working time is from 8:00 a.m. to 5:00 p.m. An hourly substitution based on another position has been entered for the employee from 3:00 p.m. to 5:00 p.m.

   The employee finishes work at 4:00 p.m. Therefore, the employee is only paid at the rate of the other position for the one hour that was actually worked.
7. Maintain the cost assignment [Page 691], if required.Save your entries.

Result

You have now maintained a substitution based on a position.

Maintain Substitutions Based on Positions

For more information, see Determine Individual Break Times [Page 195].

Determine Individual Break Times

Use

Individual calculation of break times allows you to enter break times of your choice for all forms of substitutions. You can also access existing break schedules, if they contain the desired break regulations.

You create a substitution based on a daily work schedule. A break regulation is linked to the daily work schedule; you want to apply different break times.

You define the desired break time individually.
This break time overrides the break time assigned to the daily work schedule.

Procedure

1. Choose the *Substitutions* infotype (2003).
2. Enter a validity period.
3. Select a processing mode.

   The *Substitutions* screen appears in the processing mode you have selected.
4. Enter a *Substitution type*.
5. Under *Breaks,* enter the break times of your choice.

   You can either:

- Use the possible entries help to select a break schedule rule, or
- Enter the break time you require for the substitution.

6. Enter a different payment [Page 235], if required.
7. Maintain the cost assignment [Ext.], if required.
8. Save your entries.

Result

You have now defined individual break times.

If you process a substitution record for which the break times have been maintained, but no substitution form has been entered, a break schedule will be generated for the period of the substitution record which differs from the employee's normal break regulation.

Availability Infotype (2004)

Definition

You can use the *Availability* infotype (2004) to enter different types of work availability duties. A typical availability type is on-call duty.

In the *R/3 Human Resources* (HR) component, an availability is work performed outside of an employee's planned working time. When you create an availability, the system does not overwrite the employee's work schedule.

Availability types are subtypes of the *Availability* infotype (2004). The standard R/3 System includes the following availability types:

- Subtype 01: *On-call duty*
- Subtype 02: *On-call duty <=10%*
- Subtype 03: *On-call duty <=25%*
- Subtype 04: *On-call duty* <=40%
- Subtype 05: *On-call duty <=49%*

Use

Availability Types

Availability Based On Fixed Times

Use this type of availability for employees who are to be available during a specify time interval or within a certain period of their planned working time.

You want to create the following availability:

- Monday from 8:00 a.m. to 4.00 p.m.
  Specify the availability time as 8:00 a.m. to 4:00 p.m. on the desired date.
- Monday from 8:00 a.m. to 4:00 p.m.and Tuesday from 8:00 a.m. to 4:00 p.m.
  Create a data record with a time interval from 8:00 p.m. to 4:00 p.m. for Monday and Tuesday.
- Monday 8:00 a.m. to Tuesday 4:00 p.m., continuous
  Create a data record for the desired period from Monday through Tuesday. To do so, you must define start and end times.
  The data record starts Monday at 8:00 a.m. and ends on Tuesday at 4:00 p.m.

Availability Based on a Daily Work Schedule

Use this availability type for planned working times or availability times stipulated in the daily work schedule. Unlike *Availability Based on Fixed Times*, these times may overlap those

specified in the employee's work schedule. In this way, you can enter an availability that is valid during an employee's normal working time.

For this availability type, you can only use the daily work schedules that you have defined as permitted in the corresponding Customizing steps in the Implementation Guide (IMG).

Availability Based on a Work Schedule Rule

Unlike the *Availability Based on a Daily Work Schedule*, you use this availability type if you want to take into account the work cycle specified in the period work schedule. The times of this availability type may also overlap the work schedule.

For this availability type, you can only use the daily work schedules that you have defined as permitted in the corresponding Customizing steps in the Implementation Guide (IMG).

Payment Data

There are two ways of entering a different payment resulting from an availability in the system:

- Availability type

  Availability types are subtypes of these infotypes. The availability types can be queried and valuated in *R/3 Payroll*.

- Different payment

  1Choose *Goto* → *Different payment* to enter additional information for a different payment for the availability.

- Assign a premium
- Re-define a payment by assigning a pay scale group and level
- Control payment by entering a different position
- Add or deduct a specific amount using the *Extra pay indicator* and the *Valuation basis*.

Integration of Data with Other R/3 Components

You can use this infotype to transfer data on costs and work performed to *R/3 Accounting* and *R/3 Logistics*.

Maintain Availabilities Based on Fixed Times

Use

Use this availability variant if an employee has availability duty for a specific interval of time.

This particular variant is intended primarily to record periods of availability that are outside the employee's planned working time specified in the daily work schedule.

For flextime daily work schedules, the period of time outside the planned working time should also be outside the normal working time. If availability periods overlap with times stipulated in the employee's daily work schedule, the system displays a warning, but still allows you to create the record.

On-Call Duty

On-call duty includes a special feature in the *SAP Human Resources* component. The times specified are not interpreted as an interval for *on-call duty*, but indicate the start and end times of a complete on-call record. This means that it is quick and easy to enter data on availability duty that extends over an entire weekend, for instance.

For example, an employee has on-call duty from Friday, December 8, 1997, to Monday, December 11, 1997, at 8:00 a.m. Create the following record to represent this information:

On-call Duty

Availability Type:	On-call Duty	
Valid:	08.12.1995	11.12.1995
Time:	5:00 p.m. to	08:00 a.m.

Procedure

1. Choose the *Availability* infotype (2004).
2. Enter a validity period.
3. Select a processing mode.

   The *Availability* screen appears.
4. Check the validity period of the record. Correct it if necessary.
5. Enter an *Availability type*.

   If you want to create an *On-call* record for a specific *time interval*, you can do so in one of two ways:

   - Create an availability record for each day

- Use a daily work schedule or work schedule rule that was created to reflect this type of on-call duty.

6. Enter the time interval.
7. Set the Previous Day Indicator [Ext.], if you want to assign the record to the previous day.
8. Enter a different payment [Page 235], if required.
9. Maintain the *Accounting/Logistics specifications,* if necessary.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682]

10. Save your entries.

Result

You have now maintained a record for availability duty based on a fixed time.

Maintain Availability Based on Daily Work Schedules

Use

Use this variant of availability to refer to the planned working times in the employee's daily work schedule to determine the start and end times of the period of availability.

You can use this variant to create an availability record that coincides with the employee's normal working time.

You can only create daily work schedules in the *Availability* infotype that are indicated as permissible in Customizing.

Procedure

1. Choose the *Availability* infotype (2004).
2. Enter a validity period.
3. Select a processing mode.

   The *Availability* screen appears.
4. Check the validity period of the record. Correct it if necessary.
5. Enter an *Availability type*.
6. Enter the desired work schedule.

   The *Grouping for daily work schedules* field is not activated, meaning that you can choose a daily work schedule regardless of the employee's groupings and organizational assignment.
7. Enter a variant in the *Daily work schedule variant* field, if you do not want the system to use the standard work schedule.
8. Enter a different payment [Page 235], if required.
9. Maintain the *Accounting/Logistics specifications,* if necessary.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].
10. Save your entries.

Result

You have now maintained data on availability duty based on a daily work schedule.

Maintain Availability Records Based on Work Schedule Rules

Use

Use this availability variant if availability duty extends over a longer period of time. You can take into account the working pattern stipulated in the work schedule rule.

You can also overlap this availability variant with specifications from the personal work schedule.

You can only create work schedule rules in this infotype that are indicated as permissible in Customizing.

Procedure

1. Choose the *Availability* infotype (2004).
2. Enter a validity period.
3. Select a processing mode.

   The *Availability* screen appears.
4. Check the validity period of the record. Correct it if necessary.
5. Enter an *Availability type*.
6. Enter the desired work schedule rule.

Once you have chosen a work schedule rule, the system automatically completes the remaining fields.

7. Enter a different payment [Page 235], if required.
8. Maintain the *Accounting/Logistics specifications,* if necessary.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].
9. Save your entries.

Result

You have now maintained an availability record based on a work schedule rule.

Overtime Infotype (2005)

Definition

You can use the *Overtime* infotype (2005) to enter hours worked in addition to the employee's planned working time specified in the daily work schedule.

The *Overtime infotype* (2005) is normally used if *Time Evaluation is not implemented*. Time evaluation evaluates overtime automatically.

In certain cases, you can use this infotype to enter the overtime hours for which an employee is to receive different payment, even if you do use time evaluation. These overtime hours may not be entered in the system from a time recording terminal.

This option is not supported in the standard R/3 system. If you want to use this function, it has to be activated in time evaluation.

Use

The system calculates overtime hours on the basis of the daily work schedule assigned to the employee. Therefore, times within an employee's planned working time are not taken into account when overtime records are created.

You can specify overtime rules for flextime work schedules in Customizing.

If overtime breaks are defined in the daily work schedule, the system automatically transfers this information to the *Overtime* infotype. These breaks can also be defined individually.

Payment Data

There are two ways of entering a different payment resulting from an overtime in the system:

- Overtime and Overtime Calculation Type

  Overtime records are evaluated in time evaluation or payroll. The wage types or time bonuses generated depend upon:

  – Public holiday class

  – Length of overtime

  – Whether the employee worked on a Sunday

  – *Overtime Calculation Type* entered in this infotype or in the Attendance Quotas infotype (2007) [Page 312].

- Different payment

  Choose *Goto* → *Different payment* to enter additional information for a different payment for the overtime.

- Assign a premium

- Re-define a payment by assigning a pay scale group and level

Overtime Infotype (2005)

- Control payment by entering a different position
- Add or deduct a specific amount using the “Extra pay indicator” and the “Valuation basis.”

Integration of Data With Other R/3 Components

You can use this infotype to transfer data on costs and work performed to R/3 *Accounting* and *Logistics*.

See also:

Maintaining Overtime [Page 205]

Maintain Overtime

Use

In the *SAP Human Resources* (SAP HR) component, overtime comprises those working hours that the employee works in addition to those defined in his or her daily work schedule. You can enter overtime for an employee in the *Overtime* infotype (2005).

This infotype is only used if you do not have a time recording system in operation. If your employees record their actual times at time recording terminals, overtime is calculated using time evaluation.

You can use this infotype:

- If you record your employees' actual times in the *Attendances* infotype (2002). This allows you to document overtime hours separately.
- To store special overtime data, that is, on overtime that is paid at a different rate than usual.

Overtime data cannot be transferred to HR using time recording terminals.

This option is not supported in the standard R/3 system. To use it, you have to activate the appropriate function in time evaluation.

Procedure

1. Choose the *Overtime* infotype (2005).
2. Enter a time period.
3. Select a processing mode.
4. Check the validity period of the record. Correct it if necessary.
5. Enter either the "from" or "to" times, or enter the number of overtime hours.
6. Set the previous day indicator [Ext.] if you want to assign the record to the previous day.
7. Enter an *overtime compensation type*. This controls whether the employee should be paid or granted time off for overtime.
8. Specify any overtime breaks. There are types of overtime breaks:
   – Manual Entry

     You can enter up to four breaks. For each of these breaks, you can indicate whether or not an employee is paid for the break

   – Automatic Recording

     If you do not enter breaks manually, the system queries the employee's daily work schedule for the breaks defined during this time period.

     You can overwrite these default breaks.
9. Enter a different payment [Page 235], if required.
10. Maintain the *Accounting/Logistics specifications,* if necessary.

For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].

11. Save your entries.

Result

You have now maintained an overtime using the *Overtime* infotype (2005).

Absence Quotas Infotype (2006)

Definition

You use this infotype to manage time accounts that represent employees' absence entitlements or time credits. The time accounts contain a particular number of days or hours, during which time employees are permitted to be off work.

Use

You can use the infotype to manage the following time accounts, for example:

- Employees' annual leave
- Time in lieu accounts, containing hours of overtime for which employees are permitted to claim time in lieu
- Entitlements to paid absences in the case of illness

Structure

Accrual and deduction of absence quotas

Absence quotas can be recorded manually, proposed by the SAP System, or accrued automatically. An employee can claim an absence quota by

- Requesting an absence such as leave

  In this case, you record an absence in the *Absences* infotype (2001). The absence is deducted from the quota. For more information, see Maintain Absences with Quota Deduction [Page 168].

- Requesting remuneration for the times

  In this case, you record a compensation. The compensation is deducted from the quota. For more information, see Time Quota Compensation Infotype (0416) [Page 343].

When an employee claims time from a quota, the SAP System deducts the requested time from the quota until it is used up. The quota can only be deducted further if the Customizing settings stipulate that the quota can also be deducted up to a particular negative number.

Absence quota type

Absence quotas with an identical content, such as leave, are grouped into an *absence quota type* in Customizing. *Absence quota types* are subtypes of the *Absence Quotas* infotype (2006). Time accounts are managed in hours or days (*Unit* field), according to the absence quota type of the quota from which the absence is deducted.

Validity and deduction period

Absence quotas are only valid for a particular validity period, for example, the leave year or the month in which overtime hours were worked. The deduction period stipulates when a quota can be deducted. The deduction period need not be the same as the validity period.

Employees in your enterprise receive an annual leave entitlement of 20 days. The corresponding absence quota has a validity period of one year. for example, January

Absence Quotas Infotype (2006)

1, 2000 to December 31, 2000. The quota has a deduction period from January 1, 2000 to March 31, 2001, that is, employees can take leave up to three months after the end of the leave year.

Time intervals for absence quotas

You assign absence quotas by defining a total entitlement an employee has to an absence for a validity and deduction period. You can specify clock times to stipulate that only partial-day absences within this time frame may be deducted from the quota.

Absence quotas accrued automatically

Absence quotas can be accumulated automatically in time evaluation. You cannot change automatically accrued absence quotas manually in the *Absence Quotas* infotype (2006). Instead, you use the Quota Corrections [Page 225] infotype (2013).

Recording absences

When you enter an absence with quota deduction or quota compensation, the SAP System checks the existing quotas. The absence record or compensation can only be saved if the employee has sufficient quota.

Time account statuses

To aid data entry when you record absences or compensation, the system displays the absence quotas that can be deducted on the current date, with their deduction period. Additional time account statuses for the absence quota provide information on the current deduction status:

Account status	Meaning
Entitlement	Specifies an employee's total entitlement to an absence entitlement for a particular period, for example, leave/year or compensation hours/month
Remainder	Specifies the available entitlement for which the employee can still deduct absences or have compensated
Requested	Specifies the portion of the entitlement for which absences have been recorded, for past or future dates **Note:** In the Employee Self-Service application *Leave Request,* the *Requested* field specifies the portion of the entitlement for which absences or compensation have been recorded for future dates.
Compensated	Specifies the portion of the entitlement that has already been compensated

You can display an overview of your employees' time account statuses. For more information, see Obtaining Information on an Employee's Absence or Attendance Quotas [Page 316] .

See also:

Maintaining Absence Quotas [Page 209]

Maintaining Absence Quotas

Use

You can use the *Absence Quotas* infotype (2006) to store approvals for times during which the employee is permitted to be off work. These absences may be recorded only if an appropriate quota has been assigned to the employee in infotype 2006. The absences are deducted from this absence quota.

Absences with quota deduction [Page 168] are defined in the *Absences* infotype (2001). When you record an absence which reduces a quota, the system checks whether the relevant quotas have been created in the *Absence Quotas* infotype (2006), and that they are not yet used up.

Absence quotas can also be accumulated automatically by the time evaluation program.

You cannot change these quotas manually.

A variety of mechanisms to simplify the recording of absence quotas. When you create an absence quota, particular fields are filled with default values according to your system settings. If necessary, you can overwrite the default values. It is important that you set the validity period of the record before you create it.

Procedure

1. Select the *Absence Quotas* infotype (2006).
2. Enter a validity period.
3. Select a processing mode.

   The *Absence quotas* screen appears.
4. Check the validity period of the record. Correct it if necessary.
5. Enter an *absence quota type*.
6. Specify the duration of the absence quota. Enter the amount of quota and/or the clock times.

   The *Number* field contains either hours or days.

   The number can have a smaller value than the time period. The employee is free to decide when his or her quota is reduced in this case.

   Please note that the number field always specifies the total amount of the quota.
7. Save your entries.

Result

You have maintained an absence quota.

Time Quota Compensation Infotype (0416)

Definition

Time quota compensation allows a financial remuneration of absence entitlements that have not been deducted by absences.

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*. When the compensations are recorded, the remaining quota or leave that has not been deducted or compensated is reduced by the specified amount.

Structure

- Various methods for compensating quota remainders are defined in Customizing. They simplify the recording of quota compensation. You choose the method you require by specifying a subtype for the infotype.

  For more information, see Methods for Compensating Time Quotas [Page 337]

- The list of *absence quotas* in the infotype shows which quotas can be compensated. It displays all the employee's absence entitlements that are available for deduction on the current day.

  You can branch to the corresponding infotype record by double-clicking the absence quota. This shows additional, detailed information on the quota, such as whether deduction can result in a negative value, for example.

- You can project a recorded compensation. In this process, the SAP System calculates anticipated changes to the quota, without saving the data record. This process is recommended

- If you are unsure whether there is enough remaining quota to perform compensation

- If you want to check which quotas are reduced by a compensation

- You have the option of checking the specified compensation before saving. The check enables you to view which quotas are reduced by the compensation and by how much.

- You can compensate all of an employee's quotas at the same time. This process is recommended if, for example, an employee leaves the company. You must be able to perform *free compensation* to be able to do this.

  The SAP System automatically writes the quota remainder for each quota type to the number field of the compensation in the list of quotas. You can overwrite the number that is determined automatically.

Attendance Quotas Infotype (2007)

Definition

You use this infotype to manage time accounts that represent employees' attendance approvals.

Use

Employees' working times affect costs. You can therefore use the *Attendance Quotas* infotype (2007) to specify how many hours an employee is permitted to work, and at what times. The SAP System monitors how these time accounts are accrued and deducted.

You can use the infotype to manage the following time accounts, for example:

- Approvals for an employee to use a set number of days each year for further training
- Approvals for an employee to work a set number of overtime hours at set times over a set period

Structure

Accrual and deduction of attendance quotas

You record attendance quotas manually for an individual employee, or using fast data entry for a group of employees. When an employee uses an approval, the SAP System deducts the time worked from the account.

Attendance quota type

Attendance quotas with an identical content, such as overtime approvals, are grouped into an *attendance quota type* in Customizing. Attendance quota types are subtypes of the *Attendance Quotas* infotype (2007). Time accounts are managed in hours or days (*Unit* field), according to the attendance quota type of the quota from which the attendance is deducted.

Validity period

Each attendance quota is valid for a particular period. After the validity period has expired, attendances can no longer be deducted from the quota.

Time intervals for attendance quotas

You can also set up attendance quotas for specific clock times. This allows you to assign quotas that can only be deducted at a particular time of day.

Your employees have approval to work overtime from 5:30 p.m. to 7:30 p.m. in July. They are not permitted to work more than 20 hours of overtime in that month, however.

Deduction of attendance quotas

The following attendances can be deducted from attendance quotas:

- Working times recorded in the *Attendances* infotype (2002)

  When you enter an attendance type with quota deduction, the system checks the existing quotas. The attendance record can only be saved if the employee has sufficient quota. The system automatically updates the amount of quota used.

For more information, see Maintain Attendances with Quota Deduction [Page 180].

- Working times originating from employees' time postings

  Time evaluation is able to recognize from the employee's time postings whether he or she worked longer one day. It is able to check whether the employee has an appropriate overtime approval.

Attendances are deducted from the attendance quota until the quota is used up. Depending on your Customizing settings, an absence quota can also be deducted into negative numbers.

You can also use this infotype to create a general overtime approval for an employee. You do this by creating an attendance quota of zero hours. In this case, the attendance quota must be deducted automatically be time evaluation.

Remuneration or time in lieu

If you use time evaluation, you can use the *Overtime compensation type* field to control whether overtime is to be remunerated or converted to time off.

See also:

Maintaining Attendance Quotas [Page 214]

Maintaining Attendance Quotas

Use

You use the *Attendance Quotas* infotype (2007) to store approvals for special attendances for employees.

There are three ways of specifying the duration of the attendance quota:

1. ***Detailed specification of the attendance quota***

   The employee is authorized to be at work for one hour from 6 p.m. - 7 p.m. on January 12, 1996.

2. ***Flexible attendance quota within a fixed time frame***

   The employee is authorized to work a total of six hours of overtime sometime between January 10, 1996 and January 12, 1996, and only between the hours of 6 p.m. - 10 p.m.

   The number field always specifies the total amount of quota to be deducted.

3. ***Flexible attendance quota within a fixed period***

   The employee is authorized to work 20 hours of overtime between January 2, 1996 and January 31, 1996.

Procedure

1. Choose the *Attendance Quotas* infotype (2007).
2. Enter a validity period.
3. Select a processing mode.

   The *Attendance quotas* screen appears.

4. Check the validity period of the record. Correct it if necessary.
5. Enter an *attendance quota type*.
6. Specify the duration of the attendance quota. Enter the amount of quota and/or the clock times.

   According to how your system has been customized, only the *Number* or *Time* field may be ready for input for certain attendance quota types. The *Number* field contains either hours or days.
   There are default times for certain attendance quota types. You can overwrite these times if necessary.

7. If applicable, use the *Overtime compensation type* to specify whether the attendance is to be remunerated or compensated by time off.
8. Save your entries.

Result

You have maintained an attendance quota.

Employee Remuneration Info Infotype (2010)

Definition

You can use the *Employee remuneration info* infotype (2010) to enter wage types manually and specify information directly for Payroll.

If you work with time evaluation, you can transfer time balances directly using the Time Transfer Specifications [Page 224] infotype (2012), which in turn has an effect on remuneration.

Use

These wage types are not generated automatically in payroll. Use infotype 2010 to enter wage data that has been calculated manually, such as premiums, bonuses for difficult working conditions or other special wage types.

You can adjust the wage types and subtypes of this infotype to your individual requirements in the Customizing system. Here, you can define, for example:

- The wage types that can be used here
- The fields in which data cen be entered
- Whether additional information can be entered for Accounting and Logistics
- Whether a wage type can be used once or several times per payroll period.

Structure

The following options can be used to control remuneration for a wage type in the infotype:

1. ***Number of hours, number, unit, and amount***

   If these fields contain entries, the system uses the values stored in the Customizing system for this wage type. If no *amount* is specified, you can enter one manually in the infotype.

2. ***Different payment***

   It is possible to enter additional data on a different payment for remuneration records on the entry screen or via *Goto* → *Different payment*.

   - Assign a premium
   - Re-define a payment by assigning a pay scale group and level
   - Control payment by entering a different position
   - Add or deduct a specific amount using the *Extra pay indicator* and the *Valuation basis*.

See also:

Maintaining Employee Remuneration Information [Page 218]

Maintain Employee Remuneration Information

1. Select the *Employee Remuneration Information* infotype (2010).
2. Enter a validity period.
3. Select a processing mode.

   The *Employee Remuneration Information* screen appears.
4. Check the validity date of the record. Correct it if necessary.
5. In the *Wage type* field, enter the wage type for the remuneration information record. Use the F4 help for a list of permitted wage types.
6. Enter a number of hours, a number / unit and/or an amount.

   Your entries in the *Number of hours*, *Number/unit* and *Amount* fields depend on the selected wage type.

   Certain wage types are valuated indirectly in Payroll. You do not have to specify an amount or number / unit in this case.

   The amount and number / unit can be entered for other wage types, however, and are often mandatory.

   The permitted entries for each wage type are defined in the Customizing settings. The system checks your entries at this point and generates an error message if you have made entries which are not permitted.
7. Enter data on a different payment [Page 235], if required. This is only necessary if you have not made an entry in the *Amount* field.
8. Maintain the *Accounting/Logistics specifications,* if necessary.

   It is also possible to maintain additional data when you enter remuneration information using the weekly calendar or fast entry function.

   For more information on *Activity Allocation* and *Cost Assignment*, see Integration with Other Components [Page 682] [Ext.].
9. Save your entries.

Result

You have maintained remuneration information for an employee.

Time Events Infotype (2011)

Definition

In the HR system, time events are clock-in/out times, entries for off-site work, and so on, which are normally recorded by employees at the time recording terminal. If an employee has forgotten to clock in or out or if an entry is incorrect, you can use this infotype to create, correct, or delete the time events manually.

Use

Infotype 2011 is used only for time evaluation.

Missing clock-in or clock-out times are automatically supplemented in time evaluation in certain cases. The system determines the missing times on the basis of the employee's planned working times.

Time events can only be recorded for employees who take part in time recording. This must be specified in the Planned Working Time [Page 149] infotype (0007). The employee must also be assigned an authorization for the required time event types in the Time Recording Information [Page 154] infotype (0050). Time event types can be clock-in/out times for normal attendances, off-site work, and so on.

See also:

Maintaining Time Events [Page 220]

Maintaining Time Events

Use

Time events are clock-in/out times, for example, recorded by an employee at the time recording terminal. In the *Time Events* infotype (2011), you can enter time events that have not yet been uploaded into the HR system or that have been uploaded incorrectly.

Time events are only maintained if you use time recording systems.

Missing clock-in or clock-out times are automatically supplemented in time evaluation in certain cases. The system determines the missing times on the basis of the employee's planned working times. Ask your system administrator about the situations in which missing times are supplemented automatically.

Procedure

1. Select the *Time Events* infotype (2011).
2. Enter a time period.
3. Select a processing mode.

We recommend that you use the *List entry* function, since this allows you to enter several time events at the same time.

4. Check the validity period of the record. Correct it if necessary.
5. Make the required entries.

1. Manual entries seldom specify the same clock time as time events that have been recorded at the terminal. If an employee mistakenly informs you that he or she forgot to clock in, for example, and you record the time event in infotype 2011, there are two different clock-in times stored in the system (for example, 07:59 and 08:00). An error is generated by the time evaluation program.
2. In the *Day assignment* field, you can set the previous day indicator [Ext.] to specify whether the record should be assigned to the current or the previous day. The indicator is set automatically when pairs are formed in time evaluation:

   = The event was assigned to the current day.

   < The event was assigned to the previous day.

   You can override this automatic assignment by making a manual entry:

   + The event should be assigned to the current day.

   - The event should be assigned to the previous day.

3. The system automatically checks whether the employee takes part in time recording, and whether the *work time event type* is permitted.

6. Save your entries.

Result

You have recorded one or more time events.

Time Transfer Specifications Infotype (2012)

Definition

Time transfers allow you to make changes to the time balances that have been calculated in time evaluation. This means that in exceptional cases you can change the results of time evaluation online.

- An employee has a flextime credit of five hours. These should be transferred to the compensation time account.
- Three hours should be transferred from the employee's absence quota to his or her flextime balance.
- An employee's flextime balance should be reduced by five hours.

Use

The time transfer types that you can use are defined in the Customizing system.

You can select a time transfer type, to define whether the specified number of hours:

1. Is posted to a wage type

   If the flextime balance contains more than 5 hours, the excess hours should be remunerated.

2. Sets a time type (for example, the flextime balance) to a fixed value, that is, the time balance of a time type is set to the specified number of hours.

   The balances formed in time evaluation are updated in the time types.

   The flextime balance is set to a fixed value of ten hours. The employee should be remunerated for any excess hours.

3. Is posted to one or several time types, that is, increases or reduces the time balance of a time type.

   The accumulated compensation time is transferred to the flextime balance. The flextime balance is increased or reduced by the specified number of hours.

4. Is posted to an absence quota [Page 310]

The name of the time transfer type usually indicates the nature of the changes made.

Time transfer specifications are always made with reference to a specific validity date. If you specify a validity period, the system carries out a time transfer on each day of the period.

See also:

Maintaining Time Transfer Specifications [Page 224]

Maintaining Time Transfer Specifications

Use

You can use the *Time Transfer Specifications* infotype (2012) to transfer time balances to other time balances, wage types, or absence quotas. You can also set a time balance to a fixed value.

The time transfer is not made when an infotype record is created, but is controlled by the time evaluation driver.

Procedure

1. Select the *Time Transfer Specifications* infotype (2012).
2. Choose a subtype. The name of the time transfer type usually indicates the nature of the change initiated by the transfer.
3. Enter a time period.

   Time transfer specifications are always made with reference to a specific validity date. If the validity period is longer than a day, a time transfer is made for each day in the period.
4. Choose a processing mode.
5. Check the validity period of the record. Correct it if necessary.
6. Enter the number of hours for the time transfer.
7. Save your entries.

Result

You have created a time transfer specification.

Quota Corrections Infotype (2013)

Definition

You use this infotype to change accrual entitlements that are generated by time evaluation.

Use

Time evaluation can generate and update records from the *Absence Quotas* infotype (2006) automatically. In the time evaluation run, the system first generates what are known as accrual entitlements. Your Customizing settings determine the time at which the accrual entitlements are transferred as a deductible quota to the *Absence Quotas* infotype (2006).

You can use the *Quota Corrections* infotype (2013) to influence how these accrual entitlements are generated and transferred from the table:

- You can increase, decrease, or replace an accrual entitlement (set to a fixed value).
- You can make the accrual entitlements available for deduction immediately in the *Absence Quotas* infotype (2006).

An employee has joined your company from another company. His or her contract has guaranteed a one-off entitlement of ten days of leave when the employee joins your company. You therefore want to increase the employee's *leave* quota by *10 days*. You want the entitlement to be immediately available in the *Absence Quotas* infotype (2006) so that the employee can take the ten days of leave.

Structure

You can only use the infotype to change absence quotas that are accrued in time evaluation. The changes are taken into account the next time time evaluation is run. Time evaluation carries out a recalculation starting on the day for which you have entered the quota correction. You can view the results of the quota correction in the *Quota Overview* (transaction PT50).

Transfer time

The *Absence Quotas* infotype (2006) does not take account of quota corrections immediately. The infotype is updated at a specific transfer time that is determined in Customizing.

If you want to make the corrected accrual entitlements available directly in the *Absence Quotas* infotype (2006), you can also immediately transfer the accrual entitlements accumulated in time evaluation and the *quota number* specified in the infotype. You do this by setting the *Transfer* field to *Transfer collected entitlement immediately*.

An employee is leaving the company and wants to use the remainder of all his or her absence quotas that have not yet been transferred.

Replace and increase

In the case of automatic accrual, time evaluation can either replace or increase the existing accrual entitlements in the *Absence Quotas* infotype (2006). You will generally want to use the *Quota Corrections* infotype (2013) to change only accrual entitlements that are **increased** by time evaluation. If an accrual entitlement were to be **replaced** by a quota correction, the

correction would be overwritten the next time that time evaluation transfers entitlements to the infotype. For this reason, you can only choose the *Transfer collected entitlement immediately* function for quotas that are to be replaced.

If an accrual entitlement is replaced by the quota correction, you can only enter one record for each day. This is because a second quota correction would overwrite the first one, thereby making it void.

Customizing

To check whether a quota is replaced or increased, choose the Customizing step:
Personnel Time Management → Time Data Recording and Administration → Managing Time Accounts Using Attendance/Absence Quotas → Calculating Absence Entitlements → Automatic Accrual of Absence Quotas → Permit Generation of Quotas in Time Evaluation.

Integration

You can only use the infotype if you use the *Time Evaluation* component. You must also use the Automatic Accrual of Absence Quotas [Page 321] function.

Leave Administration (Old Methods)

Use

The old leave functions comprise the administration of leave entitlements using the following infotypes:

- *Leave Entitlement* (0005)
- *Leave Entitlement Compensation* (0083)

They have been replaced by the significantly more efficient functions for managing absence entitlements in the *Absence Quotas* infotype (2006).

See also: Automatic Accrual of Absence Entitlements [Page 321]

The *Leave Entitlement* (0005) and *Leave Entitlement Compensation* (0083) infotypes can still be used but they will not be developed further.

Leave Entitlement Infotype (0005)

Definition

The *Leave Entitlement* infotype can be used to store information on an employee's leave entitlement over a certain period of time as stipulated in the work contract, and any entitlement the employee may have to relocation leave, leave for education and training, and so on.

Use

Note: The functions available for automatic quota accrual in the *Absence Quotas* infotype (2006) constitute a considerably more efficient tool for accruing and administrating absence entitlements.

See also Automatic Accrual of Absence Entitlements [Page 321]

Infotype 0005 also provides information on an employee's remaining leave.

The term "remaining leave" in the HR system refers to days of leave which have not yet been accounted, requested, or compensated on the current date.

Each time you enter a leave record in the *Absences* infotype (2001) or compensation data in the *Compensation* infotype (0083), the system checks that the employee still has sufficient remaining leave, and updates the leave totals accordingly.

You only have to store the employee's leave entitlement, as stipulated in the work contract, in the system once. The system then automatically generates the employee's leave entitlement for the following years.

Structure

Object identification of a record

Each new record you create for a leave year is assigned an object identification. This object identification cannot be changed.

The leave year + object identification combination uniquely identifies a leave record. You can store up to six leave types for each leave year and object identification.

Default values for leave entitlement

When you set up the system, you can define the following default values for leave entitlement:

- Leave types
- Validity period of a leave type (for example, 01/01/1996 - 12/31/1996)
- Start and end dates of leave deduction. These dates define the period in which leave days can be deducted from leave entitlement. This period can extend beyond the validity period or the leave year (for example, 01/01/1996 - 03/31/1997).

The system proposes these default values when you create an infotype record. These values can be overwritten.

See also:

Maintaining Leave Entitlement [Page 230]

Maintaining Leave Entitlement

Use

You can store an employee's statutory leave entitlement, and entitlement to other leave types, in the *Leave Entitlement* infotype (0005).

- Standard annual leave
- Relocation leave
- Leave for severely challenged persons

If you enter a leave record for the employee in the *Absences* infotype (2001), it is automatically deducted by the system from the appropriate quota.

An employee informs you that he or she intends to move house on May 15 of the current year. You can note the entitlement to relocation leave in infotype 0005.

When the employee's absence is recorded on May 15 in the *Absences* infotype (2001), the system checks the quota and deducts the leave entitlement.

Creating Leave Entitlement

Procedure

1. Select the *Leave Entitlement* infotype (0005).
2. Select a processing mode.

   The *Create leave entitlement* screen appears.
3. Check the validity period of the record. Correct it if necessary.
4. Enter the leave types. You can store up to six leave types for each record.

   - You only have to store the employee's leave entitlement, as stipulated in the work contract, in the system once. It is then generated automatically for subsequent leave years.
   - The system assigns a separate object identification for each new data record created for a leave year. This is derived from the *Leave year* and *Object identification* fields (for example, 1996 / 02).
     By choosing *Edit* → *Leave entitlement,* you can obtain information on other data records for a leave year.
5. Enter the leave entitlement in days (half day = 0.5).
6. Enter the deduction from and deduction end dates. These dates define the period in which leave days can be deducted from leave entitlement. This period can be shorter or longer than the validity period of the data record.

7. Save your entries.

Result

You have set up leave entitlement for an employee.

Displaying, changing and deleting leave entitlement

Further information and additional editing options can be found in the *Display*, *Change* and *Delete* modes.

You can access the following functions under *Goto* →:

- *Overview*: Allows you to display an overview of all data records for a particular leave year
- *Deduction*: Enables you to track the leave that has been deducted up to this point
- *Deduction dates*: Allows you to change a leave entitlement record
- *Leave entitlement*: Enables you to display the leave entitlement as it is on the start date of the current record, and change it if necessary.

For information on how to record leave, see Maintaining Absences with Quota Deduction [Page 168].

Leave Compensation Infotype (0083)

In infotype 0083, you can enter data stipulating that an employee is to be paid either in full or in part for entitled leave. Here, you can define:

- The leave year from which the leave should be deducted
- The leave type from which a certain number of days or hours is to be compensated.

This infotype is closely related to the Leave Entitlement Infotype (0005) [Page 228] infotype. The days or hours to be compensated are automatically deducted from the remaining leave entitlement.

When you enter a record, the system checks if

- The employee is still entitled to leave in the specified leave year and for the assigned object identification.
- The wage type you have entered is permissible. It also checks if the entry of an amount is permissible or required for this wage type.

You can enter up to six leave types for one record. This data is transferred to Payroll with the date specified here.

The indicator you set in the *leave type* field can be queried in Payroll.

Integrating Remaining Leave

Choose *Edit* → *Remaining leave* if you want to integrate all leave types from the *Leave Entitlement* infotype that have remaining leave into the *Leave Compensation* infotype. This allows you to obtain a complete overview of an employee's remaining leave and can, for example, be used when an employee leaves the company.

For more information, see Maintaining Leave Compensation Data [Page 233].

Maintaining Leave Compensation Data

Use

The *Leave Compensation* infotype (0083) allows you to grant financial compensation to an employee for either all or part of his or her leave entitlement. The days or hours that are compensated are automatically deducted from the leave entitlement stored in the *Leave Entitlement* infotype (0005).

You can use this infotype to control how many days or hours are compensated from which leave entitlement record.

Including remaining leave

When you are in create mode, you can choose *Edit* → *Remaining leave* to include all leave types that are not yet used up according to the *Leave Entitlement* infotype (0005) in infotype 0083. This is useful when employees leave the company, for example, and you want to remunerate them for leave they have not taken.

You can also use this function to obtain an overview of an employee's remaining leave. It is possible to overwrite or delete the fields that are not required.

If you use this function, the system only displays remaining leave for records where the deduction period has not yet expired.

You can also use this infotype to compensate leave entitlement if the validity period has expired. Enter the requested leave type, leave year and object identification manually.

Procedure

1. Select the *Leave Compensation* infotype (0083).
2. Select a processing mode.

   The *Compensation* screen appears.
3. Check the validity date of the record. Change it, if necessary.

   You can record a maximum of six compensation records that have the same date for inclusion in payroll.
4. Enter the leave type used for the compensation. Include the remaining leave, if applicable.
5. Specify the number of leave days to be compensated (half day = 0.5).
6. Enter the object identification of the leave entitlement.

   See also Leave Entitlement [Page 228]. Make entries in the remaining fields.

   The *Number* field refers to the number of days or hours to be compensated.

It is not possible to enter a wage type that requires the specification of a number.

8. Save your entries.

Result

You have converted an employee’s leave entitlement to a compensation record.

Entering a Different Payment for Time Infotype Records

Use

You can store information on payment in several of the time infotypes as well as just time data. In this way, employees can receive a special rate of remuneration for certain work activities.

The specifications on a *different payment* are entered via an additional window in the infotype. The method is different for *Employee Remuneration Information* (2010). In the standard system, the data is passed on to Payroll to be queried and processed.

You can specify a different rate of payment for the following time infotypes:

- *Attendances* (2002)
- *Substitutions* (2003)
- *Availability* (2004)
- *Overtime* (2005)
- *Employee Remuneration Info* (2010)

The subtypes of certain time infotypes can also have an influence on payment (for example, the subtypes *Substitution type* and *Availability type*).

If necessary, ask your system administrator whether the subtypes have an effect on payment.

Note for US customers:

When you enter a different payment, you can enter an alternative work tax area in the *Tax area* field. This replaces the tax area entered for the employee in the *Work Tax Area* infotype (0208). For more information, see Work Tax Area Overrides [Ext.].

Procedure

1. Select an infotype and maintain the record on the entry screen.
2. Choose *Goto* → *Different payment*.

In the *Employee Remuneration Information* infotype (2010), you can enter data on a different payment directly on the entry screen.

3. Specify a different payment.

You can determine the remuneration in the following ways:

– ***Assigning a premium***

You can assign an employee a premium for particular work activities or working conditions. The premium is selected according to a premium number and a premium indicator. Use the possible entries function to display all permitted premiums with corresponding texts and values.

You can either assign a premium on its own or together with the following options:

– ***Payment according to a different pay scale***

You can use the *Pay scale group* and *Pay scale level* fields to enter data on payment for a particular work activity. In this case, the payroll program does not select the rates which are specified for the employee in the *Basic Pay* infotype (0008), but the employee is paid according to the rates entered here for the duration of the different payment.

– ***Payment according to the specifications for a different position***

You can use the fields *Object type* and *Position* to assign the payment for the work activity according to the specifications for a different position.

– ***Correcting payroll results***

The *Extra pay* and *Valuation* fields can be used to correct the results of payroll.

Not every wage type is valuated using a fixed amount in payroll. The payroll program calculates a *valuation basis* during the payroll run which is used to valuate a wage type. The valuation basis is derived from the basic pay and the payments and deductions. You can change the valuation basis for the specified period in the *Valuation* and *Extra pay* fields.

Enter an amount in the *Valuation* field. The *extra pay indicator* determines how the new valuation basis is formed:

Extra pay

If you enter **+** in the *Extra pay* field, the amount in the *Valuation* field is added to the valuation basis calculated in payroll.

Reduction

If you enter **-** in the *Extra pay* field, the amount in the *Valuation* field is deducted from the valuation basis calculated in payroll.

Specifying an alternative amount

If you do not make an entry in the *Extra pay* field, the valuation basis calculated for the wage type in payroll is replaced by the specified amount.

Please note that you should only ever use one of the options for assigning a different rate of payment. An exception is the premium, which you can assign in addition to one of the other options.

4. Choose *Transfer*.
5. Save your entries.

Result

You have entered specifications on a different rate of payment for a time infotype record.

Time Constraints in Time Management

Use

Just as in HR Master Data, Time Management defines rules and procedures which govern the entry of new time records and their impact on existing data records. In many cases, data records collide. As a result, there must be an established method for determining under which circumstances collisions may or may not be allowed with respect to time infotypes. In addition, consideration must be given to the length of time each data record covers and what special relationships may occur as a result.

Features

Time Management controls time constraints by using

- Time Constraint Classes

  Time constraint classes are assigned to the time infotypes and subtypes in the HR Time Management component, and define the collision rules which apply to each.

- Time Constraint Tables

  Each Time Management infotype is linked to a time constraint table. Here, relationships are defined between the new time record and all other infotypes with which it could collide. In other words, these tables determine what time collisions are allowed between time infotypes and/or subtypes.

- Time Constraint Indicators

  An indicator is applied to each collision relationship defined within the time constraint tables. These indicators are displayed on screen when new data records are entered. Depending on the collision and the infotypes involved, they determine:

  – Whether the new record can be admitted to the system

  – Whether the system issues a warning message, or

  – Whether the system rejects the new record and issues an error message

  A list of these indicators can be found in the section Definition of Collision Checks [Page 242].

Of the three primary time constraints defined for Master Data, Time Management is best linked with *Time Constraint 3*, which allows for the existence of both gaps and collisions. However, while checks for Master Data time constraints are carried out at the day level, Time Management requires checks at the hour level.

Time Constraint Z is unique to Time Management infotype records. The time constraint for a time infotype record is defined in the subtype.

For information on time constraints, see also Time Constraints in Master Data [Ext.]

Collision Checks in Time Management

Use

Data records often overlap in Time Management. These overlaps are known in the SAP System as ***collisions***.

When you enter new time data, the system checks for collisions with existing Time Management records, as it does for new master data.

These collision checks guarantee that payroll runs smoothly, as well as allowing the system to present a comprehensive and accurate history of time data.

Please note that collision checks in Time Management do not serve the same purpose as time constraints in master data.

The Concept of Collision Checks

Use

When you enter a new record, the system carries out a check to ensure that there are no existing records for that particular employee and time period.

It is not possible, for example, to enter an absence record if there is already an attendance record in the system for the same employee and time period.

Features

When you customize the system, you can determine the system reaction if time data records collide. There are four possible reactions:

1. An employee is on *Leave* from Monday to Friday, but is required to interrupt the vacation and return to work on Wednesday.

   System reaction:

   When you enter this data for the attendance type *Attendance hours*, the system draws your attention to the fact that a leave record already exists for the period. The leave record is automatically delimited if you proceed to save the attendance record.

2. You try to enter a *Substitution* record for an employee who is on leave.

   System reaction:

   The system does not allow this particular constellation, as it is not logical to assign a substitution to an employee who is not at work. An error message is displayed and the system rejects the record.

3. You try to enter substitution data for an employee who already has an overtime record for the same day.

   System reaction:

   This combination is permitted. Overtime and substitution records are not mutually exclusive. The substitution may involve the employee working different hours from normal, however. If this is the case, it may be that the new working time coincides with the period in which the employee is authorized to work overtime.
   It is therefore preferable that the system draws your attention to the collision so that you can check your entries.

4. An employee is assigned to work a substitution, which involves longer hours than usual. You try to record the absence quota *Time off for overtime.*

   System reaction:

   This constellation is allowed, since substitutions and absence quotas are not mutually exclusive. There is no time correlation between these two subtypes. The system therefore accepts the absence quota without drawing your attention to the existing substitution record.

Definition of Collision Checks

Use

Collision checks are defined when you customize the system, for subtypes rather than infotypes. This means you can also control collisions between two different attendance or absence types.

Attendance and absence types, and attendance and absence quotas form a separate subtype within their respective infotypes.

When the system is customized, the reaction to a collision between two subtypes is defined. It does not matter whether these subtypes belong to the same infotype or two separate infotypes.

Features

Grouping subtypes

It is possible to group the subtypes belonging to one infotype; this saves you having to define the system reaction to collisions for each subtype individually. You should group all subtypes which are processed similarly under the same *Time constraint class*.

The reaction indicator

A reaction indicator is set when the system is customized for subtypes which belong to the same time constraint class. The indicator determines how the system should react if subtypes collide. There are four possible reactions:

- ***N*** *or* ***blank***

  The system does not display the collision or change records, and allows you to create the new record.

- ***W***

  The collision is displayed but no records are changed. The new record can be created, but a warning message is issued.

- ***E***

  The collision is displayed but no records are changed. The system does not allow you to create the new record, and displays an error message.

- ***A***

  The system displays the collision and changes the old record. The new record is created, but a warning message is displayed.

If you have problems entering time data, please contact your system consultant or refer to the Implementation Guide for the various configuration options. You can find these under: *System reaction to overlapping time infotypes*.

Processing Time Data

Use

This section describes time data processing in the *SAP Human Resources* (HR) component. You learn how to use the various forms of calendar entry and fast entry in the *Time Management* menu to display and maintain time data for an employee.

In the case of decentralized Time Management, a special interface can be used, which replaces many of the functions described below.

See also the section on the Processing Time Data Using the Time Manager's Workplace [Page 246].

General information on the interface for decentralized time managers can be found under Time Manager's Workplace [Page 820].

Features

The following procedures are available for maintaining and displaying time data:

- **Maintaining and Displaying Time Data Using The *Time Data* Menu**

  You can update or display time data using the *Time data* menu. This option allows you to access all Time Management infotypes [Ext.] in the *Personnel Time Management* (PTIM) component, and then display or maintain them.

- ***Maintaining and Displaying Time Data Using Calendars***

  SAP Time Management allows you to maintain or display data using either a weekly, monthly, or annual calendar. Using calendars facilitates the fast entry of data, and also allows you to view the data record history for a selected period.

- ***Fast Entry of Data***

  The fast entry of time management data enables you to maintain several subtype records for an employee within the same time infotype, as well as maintain one infotype for several employees. The fast entry function merely takes required entries into account. This allows you to record essential time management data more quickly and efficiently.

See also:

Maintaining Time Data Using the Time Data Menu [Page 257]

Displaying Time Data Using the Time Data Menu [Ext.]

Maintaining Time Data Using a Calendar [Page 259]

Displaying Time Data Using a Calendar [Page 268]

Maintaining Time Data Using List Entry [Page 281]

Fast Entry of Time Data for Several Employees at the Same Time [Page 290]

Processing Time Data Using the Time Manager's Workplace

SAP Release 4.6C introduces the *Time Manager's Workplace*, providing a user-friendly and task-oriented interface for maintaining time data and processing time evaluation messages. The new interface was specifically designed to meet the needs of time administrators in decentralized departments.

Successful decentralization of time management demands that tools used to manage employee time and labor be comprehensive, efficient, and easy to navigate. Time administrators must learn how to use time management functions quickly, and above all, be consistently effectively and supported by their IT system when carrying out their daily tasks.

Fulfilling these requirements was the main focus for the development of the *Time Manager's Workplace* for the **EnjoySAP** initiative. A completely redesigned, integrated work environment was created for the *Time Manager's Workplace*, one that greatly streamlines and facilitates daily time management processes.

For more information, see the Time Manager's Workplace [Page 820]

The *Time Manager's Workplace* offers the following advantages for your time administrators:

- All time data (that is, time data relevant for the *SAP Time Management* infotypes 2001, 2002, 2003, 2004, 2007, 2010, 2011, and 2012, as well data for cost assignment, activity allocation, and different payment) can be entered, corrected, and completed on one screen
- Time administrators automatically see a list of the employees for whom they are responsible without making any selections manually.
- All time data for a time administrator's employees can be accessed automatically
- The following views are available for maintaining time data on one screen:
  - *Multi-Day View*: All time data for one employee for several days
  - *Multi-Person View*: All time data for more than one employee for one day
  - *One-Day View*: All time data for one employee and one day
- Additional contextual information can be easily accessed by your time administrators, including the following details:
  - HR master data
  - Status of time accounts
- Simple navigation options using a calendar
- By Customizing the profile settings, you can set up the *Time Manager's Workplace* to suit the business requirements in your enterprise.

The *Time Manager's Workplace* replaces the following application fields:

Working with the Object Manager [Page 248]

Maintaining Time Data Using the Time Data Menu [Page 257]

Maintaining Time Data Using a Calendar [Page 259]

Weekly Time Recording Screen [Page 271]

Maintaining Time Data Using Lists [Page 281]

The following functions further enhance the usability of the *Time Manager's Workplace*:

Fast Entry of Time Data for Multiple Employees [Page 290]

Maintaining Time Data Using a Monthly Calendar [Page 264]

Additional functional enhancements to the existing *Maintaining Time Data* transaction (PA61):

- Break times can now be entered for the *Attendances* infotype (2002) Functionality provided by the *Overtime* infotype (2005) is now supported in the *Attendances* infotype (2002). As a result, the *Overtime* infotype (2005) itself did not need to be included in the new *Time Manager's Workplace*. In contrast, the option for entering breaks in *Attendances* infotype (2002) is now only supported in the *Time Manager's Workplace*.
- You can also enter Attendances and absences even if the required quota for this data record is already intended for use in future attendances or absences. During the time recording process, the data record already recorded for the future is automatically reset and the new record is deducted according to existing rules (for example, deduction priority). Then the data record already recorded for the future is deducted from the quota
- The system automatically revaluate the attendances and absences after a change is made in the planned specifications.

Functional restrictions to the existing *Maintaining Time Data* transaction (PA61):

The following functions from transaction PA61 are not supported in the *Time Manager's Workplace*:

- Dynamic actions function is not technically supported
- In SAP Release 4.6C, the function for triggering Workflow items when time infotypes are posted in the *Time Manager's Workplace* is not yet realized.
- Collisions in time data are not automatically delimited
- Country-specific restriction for United Kingdom only: Absences containing information relevant to continued pay can not be changed in the *Time Manager's Workplace*.

Working with the Object Manager

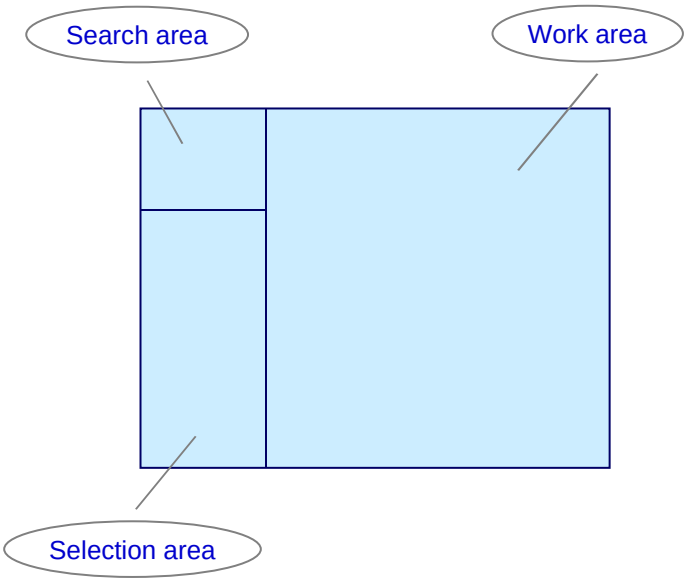
Purpose

The object manager provides you with an easy and user-friendly method of finding and selecting objects over various transactions and components.

In *Time Management*, you use the object manager to find employees whose data you want to display or edit. The object manager is connected to the following transactions:

- *Display Time Data* (PA51)
- *Display Time Data* (PA53)
- *Maintain Time Data* (PA61)
- *List Entry of Additional Data* (PA62)
- *Maintain Time Data* (PA63)
- *Calendar Entry* (PA64)

The user interface for these transactions is divided into various screen areas, each of which contains specific functions:



Together, the *search area* and the *selection area* form the object manager. You perform the transaction-specific functions for the selected employees in the *work area*.

Every time you execute a transaction, an updated list is displayed in the *selection area,* according to the search criteria. This also applies if you have saved a search as a favorite.

Process Flow

The following are steps involved in a typical process:

1. In the *search area,* you search [Page 252] for one or more employees you want to display or process.
2. The selected employees are listed in the *selection area*. You double-click on an employee to display him or her in the *work area*.
3. You perform the transaction-specific functions for the selected employees in the *work area*, for example, carrying out personnel actions.

See also:

Using Search Functions [Page 253]

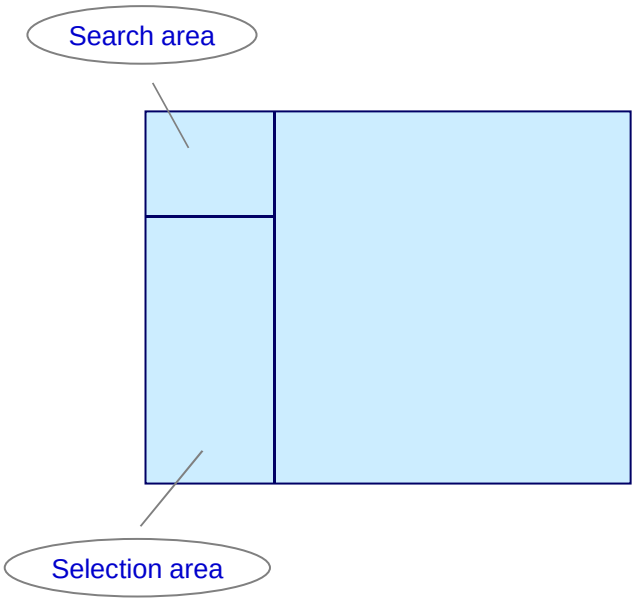
Object Manager

Use

You can use the object manager to find and select objects that you want to display or edit. In *Time Management*, you can search in particular for the *Employee* object type.

Features

The object manager comprises a *search area* and a *selection area*.



- The *search area* contains several search functions for the *Employee* object type, such as the *search term* and *free search* functions. The search functions are identified with . A search function can also be incorporated into the object type. The *Employee* object type is identified with a .

  If required, you can customize the object manager to include additional search functions. You can also change the sequence of the search functions. For more information, see the Implementation Guide by choosing *Personnel Management* → *Global Settings in Personnel Management* → *Settings for Object Manager*.

- You can create *search variants* in the search area if you want to be able to reuse search criteria or hitlists. The search variants are identified with a .
- The *selection area* displays the employees you searched for and the employees found. They are displayed in a hitlist or in a structure, depending on the search function used.

- You can use and to scroll through the previous search results in the selection area.
- You can show or hide the *object manager* completely, by choosing *Settings* → *Show object manager* or *Hide object manager*. The screen areas become correspondingly larger or smaller.
- You can use to enlarge or reduce the selection area to display more hits. The search area is then shown or hidden accordingly.

The settings last used for the size of the screen areas and the last object selection are saved for each user and are available again the next time the user accesses the transaction.

You can use the *Delete User Settings for Object Manager* report (RH_DELETE_OM_USER_SETTINGS) to reset the settings and the last object selection. Please note that the report applies to one user over all applications. For more information, see the report documentation.

Finding/Selecting Objects

Use

In the **Search area** you can search for one or more objects that you want to display or edit.

For each object type there are various **search functions**, for example:

- Search Term
- Structural Search
- Free Search

Prerequisites

Objects you are searching for must already exist. Create new objects as required.

The required object types and search functions are set up.

Procedure

1. In the **search area** select one of the available search functions and if necessary enter the required selection criteria.

   In the **selection area** the system displays all found objects with the corresponding object type, either as a list or as a structure.

2. Double-click on the required object.

Using Search Functions

Use

The search functions provided for the *Employee* object type enable you to search for employees in various ways.

The search functions are identified with a  . A search function can also be incorporated into the *Employee* object type. The *Employee* object type is identified with a  .

Procedure

Searching for employees using the collective search help

1. Choose *Collective search help*.

   A dialog box appears, displaying a number of elementary search helps (*Organizational Assignment*, for example).

2. Enter your search in one of the fields available for an elementary search help. You can also make masked entries (such as M+++er) or generic entries (such as M*).

3. Choose  .

   The search result is displayed in the *selection area*; the display in the overview and detail areas remains unchanged.

4. If required, you can search for more employees, and add the employees found to the *selection area* by choosing  *Insert*.

5. Double-click on the required employee in the *selection area*.

   The selected employee is displayed in the *work area*. You can start to edit the employee data.

Searching for employees using a search term

1. Choose *Search term* (or *Employees* if this object type relates to the function).

   The *Find Employees* dialog box appears.

2. Enter the relevant personnel number or last name. You can also make masked entries (such as M+++er) or generic entries (such as M*).

3. Choose  *Find.*

   The search result is displayed in the *selection area*; the display in the overview and detail areas remains unchanged.

4. If required, you can search for more employees, and add the employees found to the *selection area* by choosing  *Insert*.

   Double-click on the required employee in the *selection area*. You can start to edit the employee data.

Searching for employees using the free search

The *free search* function uses the *InfoSetQuery*.

Using Search Functions

1. Choose *Free search.*

   The *Determine Objects of Type Employee* dialog box appears. For more information, see Selection [Ext.]. When the search is complete, the search result is displayed in the *selection area*.

   Double-click on the required employee in the *selection area*. You can start to edit the employee data.

Using Search Variants

Use

In some search functions, for example *Search Term*, you can restrict the number of hits by using a combination of selection criteria. You can then save such a combination as a **search variant** so that you can use it again. You can also delete a search variant again, if necessary.

Procedure

Creating Search Variants

1. Use one of the search functions to search for objects.

   The system displays the hits in the **selection area**.

2. Choose  and enter a name. Choose  .

   The system saves the search criteria as a search variant and assigns them to the corresponding object type in the **search area.** The search variant is marked with  .

3. Select the search variant you created and choose  . You can check your search criteria.

Searching for Objects Using a Search Variant

1. Select a search variant.

   The hits are displayed in the **selection area**.

2. Double-click on the required object.

Deleting Search Variants

1. Select the search variant that you want to delete.
2. Choose  .

   The search variant is deleted.

Configuring Columns

Use

You can decide which columns should be displayed in different screen areas.

Prerequisites

The columns that are available are determined in Customizing. For further information see the Implementation Guide (IMG) under *Personnel Management* → *Global Settings in Personnel Management* → *Column Framework* or the IMG for *Organizational Management*.

Procedure

1. Choose  .

   The *Column configuration* dialog box appears.

2. Select the columns that you want to display.

   Some entries represent column groups, that is, more than one column will be displayed if you select one of these entries.

3. Confirm your entries by choosing  .

Result

The columns you selected are displayed.

You can reset all of a user's column configurations using the report RH_DELETE_COL_USER_SETTINGS. Note that the reset takes place across all applications. For more information, see the report documentation.

Maintaining Time Data Using the *Time Data* Menu

Use

You can maintain time data using the *Time Data* menu. This option allows you to access all Time Management infotypes to maintain employee data.

When you are creating, maintaining or deleting data records, the system may issue a time constraint warning or an error message. For more information, see Collision Checks in Time Management [Page 239].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number.
3. Select the applicable infotype or enter the infotype number in the *Infotype* field.
4. If necessary, enter a subtype in the *Sty (Subtype)* field.
5. Enter a time period.
6. Choose one of the functions from the following list:

- *Create*: to create a record
- *Change*: to change an existing record
- *Copy:* to copy a record
- *Delete:* to delete a record
- *List Entry*: to list several entries on one screen.

Result

The selected infotype appears in the processing mode you selected.

Displaying Time Data Using The Time Data Menu

Use

You can display time data using the *Time Data* menu. This option allows you to access all Time Management infotype records to display employee data.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Display.*

   The *Display Time Data* screen appears.
2. Enter the employee's personnel number.
3. Select the applicable infotype or enter the infotype number in the *Infotype* field.
4. If necessary, enter a subtype in the *Sty (Subtype)* field.
5. Enter a time period.
6. Choose either *Display* or *List*.

Result

The selected infotype appears in display mode, or as a list of records, for the period entered.

Maintaining Time Data Using a Calendar

Use

You can also create, change, or delete time recording data using a calendar. These calendars display the data contained in infotype records for the employee. Changes made to data in calendars have the same effect as changes made in the corresponding infotype records.

The separate calendars enable you to maintain an employee's time recording data for a specific time period, such as a week, month or a year. In addition, they also represent a quick way to enter data.

Features

The *Time Recording* component (PA-TIM-REC) includes the following types of calendar entry:

- ***Annual Calendar***

  The annual calendar allows you to create or change time infotype records for an entire year on one screen. There is a one-character entry field for each day of the year entered. You can overwrite the existing entry in the appropriate day field to update your data.

- ***Monthly Calendar***

  The monthly calendar allows you to create or change records for a specified month. Four fields for each day of the selected month are available for entering employee attendance/absence data and work schedule data. In addition, you can maintain all Time Management infotypes from the monthly calendar by selecting the *Time data list* function.

- ***Weekly Calendar***

  The weekly calendar allows you to maintain attendances/absences in more detail than the annual or monthly calendars. The hours that are entered for each day of the week are compared to the hours contained in the employee's daily work schedule.

See also:

Maintaining Time Data Using an Annual Calendar [Page 260]

Maintaining Time Data Using a Monthly Calendar [Page 264]

Maintaining Time Data Using a Weekly Calendar [Page 267]

Maintaining Time Data Using An Annual Calendar

Use

You can use an annual calendar to create or change records for an entire year on one screen. There is a one-character entry field for each day of the year. You can overwrite the existing entry for a particular day in the appropriate day field to update your data.

Features

The system determines which days the employee must work and which days the employee has off, based on the employee's existing work schedule.

- **Days off** are indicated by a dot.
- **Scheduled workdays** are indicated by a blank field.
- **Attendances and absences** are indicated by an appropriate number or letter.

The annual calendar covers a complete calendar year. Thus, this time period can not be extended by changing its start or end dates.

To jump from the annual calendar to the monthly calendar, select the number or name of a month and then *Choose*.

Maintaining Time Data Using An Annual Calendar

Use

Note:

- You can not enter an absence for an employee that exceeds the maximum absence time set by your enterprise. If the employee does not have enough leave time accumulated, the record is not saved.
- While creating, maintaining, or deleting data records, the system may display a time constraint warning or error message. For more information, see Collision Checks in Time Management [Page 239].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number.
3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.
4. Choose *Annual calendar*.
5. Select the day for which you want to create, change or delete data.
6. Enter the relevant symbol, or overwrite/delete a symbol. You can create data for whole period with
   the Attendances/Absences [Page 262] function.
7. Save your entries.

If you have inserted a new symbol for which several attendance/absence types already exist, you then have to select the appropriate type as well.

Result

The data is now created for the employee.

Example: Recording an Employee's Illness Using An Annual Calendar [Page 263]

Using The Attendances/Absences Function

Use

Note:

- Entering data for an entire time period means that data **for all** days within this period, including days indicated as *Day off - weekend* and *Day off - leave*, is recorded.
- You can not enter an absence for an employee that exceeds the maximum absence time set by your enterprise. If the employee does not have enough leave time accumulated, the record is not saved.
- While creating, maintaining, or deleting data records, the system may display a time constraint warning or error message. For more information, see Collision Checks in Time Management [Page 239].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain*.

   The *Maintain Time Data: Overview* screen appears.
2. Enter the employee's personnel number.
3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.
4. Choose *Monthly* or *Annual calendar*.
5. Choose *Absences/Attendances*.
6. Enter all data required and then choose *Transfer*.
7. Save your entries.

Result

The data is now created or changed for the employee.

Example: Recording An Employee's Illness Using An Annual Calendar

Scenario

An employee is ill for one week and can not work during this period. You want to create an illness record for this employee.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.

2. Enter the employee's personnel number.
3. Choose *Annual calendar*.
4. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.

5. Choose *Change* to jump to the annual calendar.

   The annual calendar appears for both the employee and period selected.

6. Select the date from which you want to change data.
7. Change the data by overwriting the existing entry with the new data. In this example, the blank record is replaced by the symbol indicating illness. Repeat this step for all additional days.
8. Then save your entries.

Result

The employee's illness during the period specified is now reflected in an absence record.

Maintaining Time Data Using the Monthly Calendar

Use

The monthly calendar allows you to maintain records for a specified month. Four fields for each day of the selected month are available for employee absence data and work schedule data. You can use the monthly calendar to access all Time Management infotypes by choosing *Change monthly calendar* → *Maintain time data list*.

Features

Certain types of data can be created, changed, or deleted directly from the monthly calendar. These types of data include the following:

Daily Work Schedule Substitutions

Attendances and Absences

Furthermore, you can create or change certain data indirectly from the monthly calendar by selecting the various options from the *List entry* menu. These options allow fast entry of data for a number of time infotypes. You can easily enter and save new data. The system then displays the updated entries in the monthly calendar. This procedure applies to the following infotypes:

- *Absences* (2001)
- *Attendances* (2002)
- *Substitutions* (2003)
- *Availability* (2004)
- *Overtime* (2005)
- *Absence Quotas* (2006)
- *Attendance Quotas* (2007)
- Employee Remuneration Information (2010)
- *Time Events* (2011)

For more information regarding fast entry using the above infotypes, see Maintaining Time Data Using List Entry [Page 281].

Maintaining Time Data Using The Monthly Calendar

Use

Note:

- While you are creating, maintaining, or deleting data records, the system may display a time constraint warning or an error message. For more information, see Collision Checks in Time Management [Page 239].
- You can not enter an absence for an employee that exceeds the maximum absence time set by your enterprise. If the employee does not have enough leave time accumulated, the record is not saved.

Procedure

1. Choose *Human resources → Time management → Administration → Time data → Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number.
3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.
4. Choose *Monthly calendar*.
5. Select the day for which you want to create data.
6. You can now create, overwrite or delete data.

   You can enter data for entire time periods using Attendances/Absences [Page 262].
7. Then save your entries.

If you have added a symbol and there are several attendance/absence types for one symbol, you have to select the appropriate type.

Result

The data is now created for the employee.

Example: Changing an Employee's Daily Work Schedule Using the Monthly Calendar [Page 266]

Example: Changing an Employee's Daily Work Schedule Using the Monthly Calendars

Scenario

An employee who normally works flextime must work the night shift for one week.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.

2. Enter the employee's personnel number.
3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.

4. Choose *Monthly calendar*.
5. Select the date from which you want to change data.
6. Change the data for the required days by overwriting the existing data. In this example, overwrite the flextime indicator with the indicator for a night shift.

   The system creates a substitution record for the days that you have changed, unless a time collision exists.

7. Save your entries.

Result

The work schedule data for the employee has been changed from flextime to night shift for the specified days in the relevant infotypes.

Maintaining Time Data Using the Weekly Calendar

Use

Maintaining time data using the weekly calendar is another method for fast entry of employee data. This method allows you to create several data records for an employee in any one week. You can also track the distribution of the employee's attendance hours on a weekly basis. In addition, specifications for Controlling and Materials Management can be maintained in all weekly calendar screens.

Features

Weekly calendar screens are provided for the following infotypes:

- Absences (2001)
- Attendances (2002)

In the weekly calendar, you can enter the most important specifications and assignments. These include:

- Cost assignment
- Activity allocation
- External services
- Company code, and so on...

If you are entering additional data, you should be familiar with the relevant applications. For more information, see Integration with Other Components [Page 682].

In the standard system, the weekly calendar contains the most important specification and assignment columns for data entry.

You can tailor the display of the weekly calendar to suit your requirements in Customizing for Time Data Recording and Administration under *Integrating Time Management with Other SAP Applications.*

If you have questions regarding the configuration of your system, see the Implementation Guide (IMG) or contact your system administrator.

Displaying Time Data Using A Calendar

Use

All of the calendars can be used to display, as well as to maintain, time recording data.

You can also use a calendar to display an employee's *Personal Work Schedule*.

Displaying Time Data Using The Monthly Calendar

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Display.*

   The *Display Time Data* screen appears.

2. Enter the employee's personnel number.
3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.

4. Choose *Monthly calendar*.
5. To return to the monthly calendar, choose *List*.

Result

The system displays the monthly calendar for the specified employee and the selected period in the display mode.

Displaying Time Data Using The Annual Calendar

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Display.*

   The *Display Time Data* screen appears.

2. Enter the employee's personnel number.

3. Enter the start and end dates you want to set as the validity period for your calendar.

   If you do not specify a period in the *From* and *To* fields, the system will default to a period beginning with the current month.

4. Choose *Annual calendar*.

Result

The system displays the annual calendar for the specified employee and the selected period in the display mode.

The Weekly Calendar Screen

Use

The weekly calendar screen is a clearly laid out, user-friendly tool for the fast entry of time data.

Features

The weekly calendar screen contains the following sections:

- **Information Section**

  The most important information on the employee's time account is displayed here. It allows you to display the distribution of hours on a daily basis. This provides you with a clear overview of the hours that are still to be distibruted.

  The hours that are to be recorded for the specific days of the week are determined as follows according to the settings made in Customizing:

  – Hours are either compared to the planned working hours assigned to the employee in his/her personal work schedule, or

  – Compared to the working time determined from time evaluation.

    The time evaluation program must have already been run for the day in question for this option to be valid.

  You can refer to the *Remaining hours* to see how many hours still remain to be distributed for a particular day.

- Hours in excess of the employee's planned working hours or the working time determined by time evaluation are displayed as a negative number.

- Public holidays are indicated in color in the information section.

- **Entry Section**

  All attendances and absences recorded for the employee for the selected period are displayed in this section of the weekly calendar screen.

- Depending on which entry screen you have chosen, various different fields appear for data input.

- You can also enter specifications on an alternative payment when maintaining attendance or absence data.

The weekly calendar screen can be customized in the following ways:

- You can set up the structure of the *information section* to conform to your company requirements when making your settings in Customizing.

- You can also customize the entry section at the same time.

Maintaining the Weekly Calendar Screen

Use

The weekly calendar screen supplies innovative functions for the efficient recording of your employees' day-to-day time data. To familiarize yourself with the weekly calendar and learn how to implement it effectively, you should note the following:

You can customize the weekly calendar screen to suit your own particular requirements. For more information, see Creating An Individual Weekly Calendar Screen [Page 275].

Features

Changing the Validity Period

You can change the validity period in the weekly calendar screen without having to exit the screen. The validity period can be changed by either of these two methods:

- To change the validity period, change the date in the *Week* field.

  When you enter a date, the days of the week appear in sequence in the information section, starting with the date entered.

  To display the calendar week for the date entered, choose *Complete week*.

- Choose *Previous week* and *Next week* to display or maintain data for the previous or subsequent week.

  In this case, the system counts seven days back or seven days ahead. If the week displayed in the *Information section* began on Wednesday on the previous screen, the next week displayed also starts on Wednesday.

If you change the validity period on the weekly calendar screen, you first have to save any changes you have made or any new records you have created.

Scrolling in the Weekly Calendar Screen

If you want to maintain several data records within a validity period, the space on one screen may not be sufficient. You can use the various scrolling functions to get to a different page. A scroll bar is also included on the right side of the entry section.

Maintaining infotype records which cannot be changed

Data records that can not be changed may appear on the weekly calendar screen. In the following cases, you can not change infotype records using the weekly calendar:

- When you customized the weekly calendar screen, certain fields containing important information were hidden. To prevent any unwanted errors, data can not be entered in these infotype records.

  If necessary, contact your system administrator to change these settings.

Maintaining the Weekly Calendar Screen

- You have already created infotype records that last several days for the specified period. These records are highlighted in color.
- You have entered an attendance record that already contains additional data or specifications for other SAP applications. The infotype record is also highlighted in color.

You have entered *Cost assignment specifications* for an attendance record. The infotype record is highlighted in color on the weekly calendar screen for *Attendances/Activity Allocation*. You can not maintain this infotype record using the weekly calendar.

To maintain these types of infotype records, go to single screen maintenance. Select the infotype record that cannot be changed. Choose *Choose*. The single screen appears. Here you can make your required changes.

Creating Your Own Weekly Calendar Screen

Use

You can modify the weekly calendar screen to suit your own specific requirements.

You can change the settings for weekly calendar screen in Customizing. Here you can set up the structure of the Information section, as well as determine the fields to be displayed in the Entry section.

When modifying the weekly calendar screen, you can position the fields anywhere you want in the line. You can reduce or hide fields you do not need.

You can save the settings you have made. The next time you call this weekly calendar screen, the system displays the individualized version of the screen that you just saved.

Procedure

1. Select a weekly calendar screen.
2. Modify the weekly calendar screen to suit your requirements.

- **Positioning a field**

  i) You can use the mouse to select the field that you want to move. Go to the name of the field that you want to move.

  ii) Press the left mouse button when the white cross appears.

  iii) Without releasing the mouse button, drag the field to its new position.

  iv) Release the mouse button.

  The field is now in its new position.

- **Reducing or hiding a field**

  i) You can use the mouse to select the field that you want to reduce or hide. Select the right edge of the field you want to reduce or hide.

  ii) Press the left mouse button when the black cross appears.

  iii) Drag the cross to the desired field size. Release the mouse button.

  There may be fields containing important data which were hidden when you were making the settings in Customizing. Infotype records which contain information in hidden fields can only be changed using single screen maintenance, and not by using the weekly calendar.

  Information in fields which were completely hidden is also checked for plausibility (for example, time constraints) when you save the infotype records. Thus, you may receive system messages, warnings or other error-related information without being able to see what caused the messages on the screen.

- **Enlarging or showing a field**

i) You can use the mouse to select the field that you want to enlarge or display. Select the right edge of the field you want to display.

ii) Press the left mouse button when the black cross appears.

iii) Drag the cross to the desired field size. Release the mouse button.

3. Save your own weekly calendar screen.

a) Select the field above the right scroll bar and press the left mouse button.

A dialog box appears. You can save your own weekly calendar screen as a variant here.

b) Enter a name for the variant.

c) Activate the *Standard setting* field if you want to display this variant in the future.

d) Save your entries.

e) From the *Table settings* dialog box, select the variants you want to use as the *Standard setting* or *Current setting*.

f) Transfer the entries.

Result

The next time you call the weekly calendar, the system displays the variant you defined as the *standard setting*.

Maintaining An Employee's Attendances and Absences Using The Weekly Calendar

Use

Note:

While you are creating, maintaining, or deleting data records, the system may display a time constraint warning or an error message. For more information, see Collision Checks in Time Management [Page 239].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.

2. Enter the employee's personnel number.

3. Choose *Edit* → *Weekly calendar*.

   The *Maintain Weekly Entry* screen appears.

- If you do not enter a validity period, the current week is displayed.

- You can maintain a variety of data in the weekly calendar screen. The entry section does not show all available fields at first. Use the scroll bar at the bottom of the *Entry section* to display the additional fields.

- Depending on the weekly calendar screen and the settings made in Customizing, the system displays various different fields. You can adapt the weekly calendar to suit your own requirements. For more information, see Creating An Individual Weekly Calendar Screen [Page 275].

- The weekly calendar screen includes several special functions. For more information, see Maintaining the Weekly Calendar Screen: Notes [Page 273].

4. In the *D* field, enter the day index of the required day.

   A specific day index is assigned to each day of the week. To determine the validity day of an infotype record, enter a day index in the *D* field.

5. Enter data as required.

6. Choose *Continue*.

   The system:

- Enters the total number of hours to be distributed in the *Hours* field

- Reduces the total number of hours to be distributed to zero
- Reduces the total number of hours to be distributed for the selection period (*hours still to be distributed*) by the corresponding amount.

7. Save your entries.
8. To leave the weekly calendar screen, choose *Back*.

Result

You have maintained an employee's attendances or absences using the weekly calendar.

Maintaining Additional Data For An Employee Using The Weekly Calendar

Use

Note:

While creating, maintaining, or deleting data records, the system may display a time constraint warning or error message. For more information, see Collision Checks in Time Management [Page 239].

You can use special weekly calendar screens to maintain attendances with Controlling and Materials Management specifications on a weekly basis.

The weekly calendar screens can be used for the following additional data:

Attendances infotype (2002):

- Cost assignment
- Activity allocation
- External services

Scenario

An employee's attendance records must be maintained for the period March 4 - March 8, 1996. The attendance type for the five workdays is *productive hours*. The costs for productive hours on these five days are to be debited from various Controlling objects. To facilitate data entry, choose the weekly calendar for Cost Assignment in the *Attendances* infotype (2002).

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain additional data*

   The *List Entry of Additional Data* screen appears.

   Select the desired type of additional data.

2. Enter the employee's personnel number.
3. Enter the validity period.

   If you do not enter a validity period, the current week is displayed.

4. Choose *List entry*.

   The weekly calendar screen appears for the selected infotype. Here you can enter Controlling and Materials Management specifications, at the same time as you enter additional time data.

- You can maintain a variety of data in the weekly calendar screen. The entry section does not show all available fields at first. Use the scroll bar at the bottom of the *Entry Section* to display the additional fields.
- Depending on the weekly calendar screen and the settings made in Customizing, the system displays various different fields. You can adapt the weekly calendar to suit your own requirements. For more information, see Creating Your Own Weekly Calendar Screen [Page 275].
- The weekly calendar screen includes several special functions. For more information, see Maintaining the Weekly Calendar Screen: Notes [Page 273].

5. Enter the day index of the desired weekday.

   A specific day index is assigned to each day of the week. To determine the validity day of an infotype record, enter a day index in the *Day* field.

6. Enter data as required.
7. Choose *Continue*.

   The date of the attendance or absence record is now displayed for you to check. The system:

   - Enters the total number of hours to be distributed in the *Hours* field
   - Reduces the total number of hours to be distributed to zero
   - Reduces the total number of hours to be distributed for the selection period (*hours still to be distributed*) by the corresponding amount.

8. Save your entries.
9. To leave the weekly calendar screen, choose *Back*.

Result

You have now maintained Controlling and Materials Management specifications for an employee using the weekly calendar.

Maintaining Time Data Using List Entry

Use

This type of fast data entry allows you to maintain several subtype records of one infotype for an employee at the same time. The system only displays the mandatory input fields. You can maintain essential time data for an employee more quickly and efficiently by limiting the number of required fields.

Features

You can use the list screen to:

- Maintain several records on a single screen using *Create*, *Change*, *Copy*, *Delete* and *Lock/Unlock*.
- Access the complete infotype record for a particular entry.
- Ensure the integrity of data with comprehensive internal validations.

Creating Time Data Using List Entry

Use

Note:

- While you are creating, maintaining, or deleting data records, the system may display a time constraint warning or an error message. For more information, see Collision Checks in Time Management [Page 239].
- You can not enter an absence for an employee that exceeds the maximum absence time set by your enterprise. If the employee does not have enough leave time accumulated, the record is not saved.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number.
3. Select the infotype for which you want to enter data using list entry.
4. Enter the selection period in the *From* and *To* fields.
5. Choose *List entry*.

   The list entry screen appears. The system displays all time data records for this infotype during the selected period.
6. Find the first blank record or select *New page* and begin at the first blank record line.

   Data entered in any other blank record is not accepted by the system.
7. Make the required entries for each separate subtype record.

   The system enters default values in the infotype fields that are not displayed in the list entry screen.
8. Then save your entries.

Result

New infotype records are now created.

Example: Entering Several Absences at the Same Time for an Employee Using List Entry [Page 283]

Entering Several Absences at the Same Time for an Employee Using List Entry

Scenario

An employee is scheduled to attend an internal training course on July 3, 1995. The course begins at 8:00 a.m. and ends at 11:30 a.m. In addition, the employee would like to take paid leave from July 4 to July 7 of the same year.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.

2. Enter the employee's personnel number and a selection period in the *From* and *To* fields.
3. Select the *Absences* infotype (2001).
4. Choose *List entry*.

   The list entry screen appears. The system displays all time data records in the *Absences* infotype (2001) for the selected period.

5. Find the first blank record or select *New page* and begin at the first blank record line.

   Data entered in any other blank record is not accepted by the system.

6. Enter the date 07/03/95 in the *From* field.

   This date will automatically be entered in the *From* field.

7. Enter the absence type specified for an internal training course.
8. Enter 8:00 a.m. in the *Start* field and 11:30 a.m. in the *End* field.
9. Choose *Enter* to record (but not yet save) the data you entered.

   The system calculates the absence hours (*Hours*), absence days (*Days*) as well as quota deduction (*Used*).

10. Enter 07/04/95 and 07/07/95 in the *From* and *To* fields respectively.
11. Enter the absence type specified for paid leave.
12. Choose *Enter* to record (but not yet save) the data you entered.

    The system calculates the absence hours (*Hours*), absence days (*Days*) as well as quota deduction (*Used*).

13. Save your entries after you have entered all absences.

Result

The employee's absences for the internal training course and paid leave are now recorded in the system.

Entering Several Absences at the Same Time for an Employee Using List Entry

Changing Time Data Using List Entry

Use

Note:

- While you are creating, maintaining, or deleting data records, the system may display a time constraint warning or an error message. For more information, see Collision Checks in Time Management [Page 239].
- You can not enter an absence for an employee that exceeds the maximum absence time set by your enterprise. If the employee does not have enough leave time accumulated, the record is not saved.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number.
3. Enter the selection period in the *From* and *To* fields.
4. Select the infotype containing the subtype records you wish to change.
5. Choose *List entry*.

   The list entry screen appears. The system displays all time data records for this infotype during the selected period.
6. Make the required changes to the records.
7. Save your changes.

Result

The subtype records for the infotype are now changed.

Locking/Unlocking Time Data Using List Entry

Use

If a time infotype record is locked for an employee, then this record is not included in normal evaluations such as time evaluations and payroll. However, the locked record still exists in the system. Records can be locked or unlocked in either the standard screen or the list entry screen.

Locking a Record

Procedure

1. Choose *Human resources → Time management → Administration → Time data → Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number and a selection period in the *From* and *To* fields.
3. Select the infotype containing the subtype records you want to change.
4. Choose *List entry*.

   The list entry screen appears. The system displays all time data records for this infotype during the selected period.
5. Set the *Lock indicator (L)* for the record you want to lock.
6. Then save your entries.

Result

The subtype record is now locked.

Unlocking a Record

Procedure

1. Choose *Human resources → Time management → Administration → Time data → Maintain.*

   The *Maintain Time Data* screen appears.
2. Enter the employee's personnel number and a selection period in the *From* and *To* fields.
3. Select the infotype containing the subtype records you want to change.
4. Choose *List entry*.

   The list entry screen appears. The system displays all time data records for this infotype during the selected period.
5. Deactivate the *Lock indicator (L)* for the record to be unlocked.
6. Then save your entries.

Result

The subtype record is now unlocked.

You can determine who is allowed to lock and unlock infotype records by setting user authorizations. For example, some users are only permitted to enter data for locked records in the system. Locked records can only be unlocked by the supervisor or colleague responsible for a particular employee.

Accessing Complete Infotype Records From The List Entry Screen

Procedure

1. From the list entry screen, select the line for the record you want to display in its entirety.
2. Choose *Choose*.

Result

The system displays the complete infotype record.

System Messages During List Entry And Fast Entry

Use

System messages and warnings provide important information during data entry. Error messages appear if a data record can not be saved in its current form. If the date you entered for the start of a validity period is a day off (non-working day), then the system issues a message stating that this occurred.

These comprehensive checks are linked to time constraints, and are set up in Customizing to suit the requirements of your enterprise.

Fast Entry of Time Data for Several Employees At The Same Time

Use

Fast entry of data allows you to create and maintain the same time infotype or subtype record for several employees at the same time.

Features

When you use fast entry to maintain time data for several employees, you do not need to enter the data record separately for each employee. Using fast entry, you can enter data on one screen for several employees at the same time; the screens only contain the required input fields for each infotype. You can then process data for a large number of employees quickly and efficiently.

All types of processing can be carried out using the fast entry screen, including :

- Create
- Change
- Copy
- Delete
- Lock/Unlock

In addition, you can access complete infotype records from the fast entry screen.

There are three different methods for selecting the personnel numbers you want to process:

- Manually compiling a list of personnel numbers before processing from the fast entry screen.
- Entering personnel numbers directly in the fast entry screen.
- Generating a list of personnel numbers using a report based on specific search criteria.

Selecting Personnel Numbers for Fast Entry of Time Data

Use

When using fast entry to maintain a time infotype for several employees at the same time, you access the employees you want by using their personnel numbers.

Features

You can compile a list of personnel numbers in any of the following three ways:

- **Manually Entering Personnel Numbers from Outside the Fast Entry Screen**

  Enter the personnel numbers for employees whose infotype record you want to maintain in a blank entry screen. You can use matchcodes to search for unknown personnel numbers.

- **Directly Entering Personnel Numbers in the Fast Entry Screen**

  Rather than first compiling a list of personnel numbers which are then transferred to the fast entry screen, you can enter the personnel numbers directly in the fast entry screen of the relevant infotype.

- **Selecting Personnel Numbers Using Reports**

  You can use selection report RPLFST01 to generate a list of personnel numbers. This option is recommended if the employees (personnel numbers) you want to select belong to the same personnel subarea, employee group or employee subgroup.

Manually Preselecting Personnel Numbers for Fast Entry Of Time Data

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Select the *Manual preselection* field in the *Enter Personnel Numbers section* of the screen.
3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
4. Choose *Create*.

   A blank list appears in which you can enter personnel numbers.

5. Enter the personnel numbers.

   You can use a matchcode search to select personnel numbers according to specific criteria such as name, organizational unit or company code.

   For more information about *matchcode searches*, refer to the existing documentation for the *SAP Payroll* component.

6. Choose *Edit* to select a processing mode.

Result

You can now maintain the personnel numbers that you selected.

Directly Entering Personnel Numbers For Fast Entry of Time Data

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Select *Enter in fast entry screen* under the *Enter Personnel Numbers* section of the screen.
3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
4. Choose *Edit* to select a processing mode.

   The *Fast Entry* screen appears for the selected infotype.

5. Enter the personnel numbers.

   You can use a matchcode search to select personnel numbers according to specific criteria such as name, organizational unit or company code. For more information about *matchcode searches*, refer to the existing documentation for the *SAP Payroll* component.

Result

You can now maintain the personnel numbers you selected using the fast entry screen.

Creating a List of Personnel Numbers Using a Report for Fast Entry of Time Data

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.

3. Select *Preselect using report* in the *Enter Personnel Numbers* section of the screen. You can also enter a specific report in the field provided.

   The selected infotype determines which reports you can use for fast entry. Therefore, you must first enter an infotype. You can find the names of the reports allowed for this infotype by selecting from the list of *possible entries*. Generally, however, only one report is assigned to each infotype, so that the report selection screen appears automatically by choosing *Enter*.

4. Choose *Create*.

   The report selection screen appears. Here you can enter additional report-specific selection criteria. For more information, see the *Report Selection Screen* section.

5. Make all required entries and then choose *Execute*.

   The system displays a list of all personnel numbers that fulfill the search criteria you entered.

6. To edit this list, choose *Edit* → *Create personnel no. (number)* or *Edit* → *Delete personnel no.*.

7. Choose *Edit* to select a processing mode.

Result

You can now enter data on the fast entry screen for the personnel numbers selected by the report.

Creating A List of Personnel Numbers Using a Report for Fast Entry of Time Data [Page 295]

Example: Creating a List of Personnel Numbers Using a Report for Fast Entry of Time Data

Scenario

A group of employees was not credited for participating in a "Safety in the Workplace" seminar (attendance type 250) which took place on February 2, 1996. The personnel administrator (time data administrator code DLS) responsible for maintaining time data for this group of employees is on vacation. As a result, you are asked to maintain this time data. However, you do not know which employees attended the seminar. You do not know their personnel numbers either. You only know that they were trainees, and that they joined your enterprise on October 15, 1994.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry.*

   The *Fast Entry of Time Data* screen appears.

2. Select the *Attendances* infotype or enter the infotype number 2002 in the *Infotype* field.
3. Choose *Preselect using report* in the *Enter Personnel Numbers* section.
4. Choose *Enter*.

   The *Personnel Number Selection for Fast Data Entry* screen appears.

5. Enter the selection criteria according to the information given for the scenario above.
6. To edit the list, choose *Edit* → *Enter personnel no.* or *Edit* → *Delete personnel no.*
7. Choose *Execute.*

Result

The system generates a list of all employees who meet the specified search criteria.

Processing Time Recording Data Using Fast Entry

Use

Entering large quantities of information for a number of employees can be a lengthy process. If the information to be entered is similar for several employees, you can reduce the time required to input this data by using fast entry.

Features

You can use any of the following fast entry functions to maintain employee data for a selected time infotype:

- *Create*

  Create time data for several employees for a specified time infotype.

- *Create with proposal*

  Create time infotype data for a number of employees using suggested entries. The default values are transferred to the fast entry screen and can be modified there as required.

- *Maintain*

  Maintain time infotype data that already exists in the system.

- *Delete*

  Delete time infotype data that already exists in the system.

- *Lock/Unlock*

  Change the status of records from unlocked to locked by activating the lock indicator for each record. You can not change or create records in this processing mode.

  You can process the personnel numbers of up to twenty employees at the same time. If you select more than twenty employees, the system assigns their corresponding personnel numbers to groups of twenty employees each. Any groups that are not currently displayed on the screen can be accessed by choosing *Other personnel nos*. All of the personnel numbers on subsequent screens are automatically updated each time you save records for the personnel numbers on the current screen.

Maintaining Time Data For Several Employees Using Fast Entry

Use

The fast entry screen is multi-functional. You can maintain fast entry records for several personnel numbers for a selected period at the same time. You can use the following functions to maintain your time data:

- Copy
- Change
- Delete
- Lock/Unlock Displayed Records
- Create New Records

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.
2. Select *Enter in fast entry screen* under the *Enter Personnel Numbers* section of the screen.
3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
4. Enter a validity period in the *From* and *To* fields.
5. Choose *Maintain*.

   The *Fast Entry* screen appears for the selected infotype.
6. Enter the personnel numbers either directly or by using a matchcode search.

   For more information about *matchcode searches*, see the SAP Library for Personnel Administration and Payroll.
7. When you choose *Enter*, the system displays the fast entry records for the specified personnel numbers.

Result

You can now maintain the infotype records for the selected employees and specified period.

You can process the personnel numbers of up to twenty employees at the same time. If you select more than twenty employees, the system assigns their corresponding personnel numbers to groups of twenty employees each. Any groups that are not currently displayed on the screen can be accessed by choosing *Other personnel nos*. All of the personnel numbers on subsequent screens are

automatically updated each time you save records for the personnel numbers on the current screen.

Creating Time Data For Several Employees Using Fast Entry

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Select *Enter in fast entry screen* under the *Enter Personnel Numbers* section of the screen.
3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
4. Choose *Create*.

   The *Fast Entry* screen appears for the selected infotype. All fields on this screen can be maintained.

5. Enter the personnel numbers of the employees for whom you want to create a new infotype record. Personnel numbers can be entered directly or by using a matchcode search.

   For more information about *matchcode searches*, see the SAP Library for *Personnel Administration* and *Payroll*.

6. Maintain the required data for each employee.
7. Then save your entries.

Result

The new infotype records are now created for the selected employees.

You can process the personnel numbers of up to twenty employees at the same time. If you select more than twenty employees, the system assigns their corresponding personnel numbers to groups of twenty employees each. Any groups that are not currently displayed on the screen can be accessed by choosing *Other personnel nos*. All of the personnel numbers on subsequent screens are automatically updated each time you save records for the personnel numbers on the current screen.

Creating Time Data For Several Employees At The Same Time Using Fast Entry Default Values

Use

When you use fast entry to maintain time recording data, you can use default values if you want to create records for a number of employees at the same time. You can avoid entering the same data repeatedly by using default values. You simply enter the data once. The data is automatically transferred to the fast entry records for the individual employees. Default values can also be changed.

This procedure is recommended if you want to enter activity allocation specifications for attendances and remuneration for several employees at the same time.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Choose a type of data entry in the *Enter Personnel Numbers* section of the screen.

   For more information on creating data records for employee personnel numbers, refer to the Selecting Personnel Numbers Using Fast Entry of Time Data [Page 291] section.

3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.

4. Choose *Create with proposal*.

   A screen with fields for default values appears for the selected infotype.

5. Enter default values.

6. Choose *Next screen*.

   The *Fast Entry* screen appears for the selected infotype. The system creates twenty lines using the default data you entered in the previous step.

7. Enter the personnel numbers of the employees for whom you want to maintain an infotype record. Personnel numbers can be entered directly or by using a matchcode search.

   For more information about *matchcode searches*, see the SAP Library for *Personnel Administration* and *Payroll*.

8. Make any required modifications and then save your entries.

Result

The infotype records for the selected employees are now created.

You can process the personnel numbers of up to twenty employees at the same time. If you select more than twenty employees, the system assigns their

corresponding personnel numbers to groups of twenty employees each. Any groups that are not currently displayed on the screen can be accessed by choosing *Other personnel nos*. All of the personnel numbers on subsequent screens are automatically updated each time you save records for the personnel numbers on the current screen.

Locking/Unlocking Time Data For Several Employees Using Fast Entry

Use

When processing time recording data using fast entry, you can also lock or unlock an infotype record for several employees. Infotype records are locked, for example, if they are not to be used in Payroll for a certain payroll period. You can not create or change infotype records for any employees while using this function.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Select *Manual preselection* in the *Enter Personnel Numbers* section of the screen.
3. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
4. Enter a validity period in the *From* and *To* fields.
5. Select *Locked records only* in the *Maintain/Lock/Unlock/Delete* section of the screen if you only want to select locked records.
6. Choose *Enter*.

   A blank list appears in which you can enter personnel numbers.

7. Enter the personnel numbers of the employees for whom you want to lock or unlock an infotype record. Personnel numbers can be entered directly or by using a matchcode search.

   For more information about *matchcode searches*, see the SAP Library for *Personnel Administration* and *Payroll*.

8. Choose *Edit* → *Lock/Unlock*.

   A list of employee names and personnel appears together with their infotype records for the selected period.

9. Select the *lock indicator* for the records you want to lock, or deselect the *lock indicator* for each record you want to unlock.
10. Then save your entries.

Result

The infotype records for the selected employees are now locked or unlocked accordingly.

You can process the personnel numbers of up to twenty employees at the same time. If you select more than twenty employees, the system assigns their corresponding personnel numbers to groups of twenty employees each. Any groups that are not currently displayed on the screen can be accessed by choosing *Other personnel nos*. All of the personnel numbers on subsequent screens are

automatically updated each time you save records for the personnel numbers on the current screen.

Creating a Batch Input Session to Process Fast Entry of Time Data

Use

Creating records for a large number of employees can be a lengthy process. To expedite data entry for numerous employees, you can create a batch input session to be run at night or during another period of low system utilization. In this way, the system is not taxed during peak or normal system utilization times.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Fast entry*.

   The *Fast Entry of Time Data* screen appears.

2. Choose *Create batch input session* in the *Save Option* section of the screen.
3. Choose a type of data entry in the *Enter Personnel Numbers* section of the screen.

   For more information, see Personnel Numbers Using Fast Entry of Time Data [Page 291].

4. Select an infotype from the proposed list, or enter the infotype number in the *Infotype* field.
5. Select a processing mode by choosing *Edit*.
6. Maintain the data for the selected employees.

Result

After you save the fast entry data, you automatically return to the initial selection screen, where the system issues a message stating the name of the newly created batch input session.

Absences/Attendances

Purpose

You can use the *Attendances and Absences* component to create the basic time information for the evaluation and accounting of your employees' working times. You can use the *Attendances* (2002) and *Absences* (2001) infotypes to record time information efficiently.

You should use the *Attendances/Absences* component if you want to record working times or absence times for individual employees.

You can use *Attendances* to record the following situations, for example:

- Employees' actual times
- Deviations from an employee's personal work schedule
- Deviations from an employee's general activities (such as seminar attendances, business trips)

You can use *Absences* to record the following situations, for example:

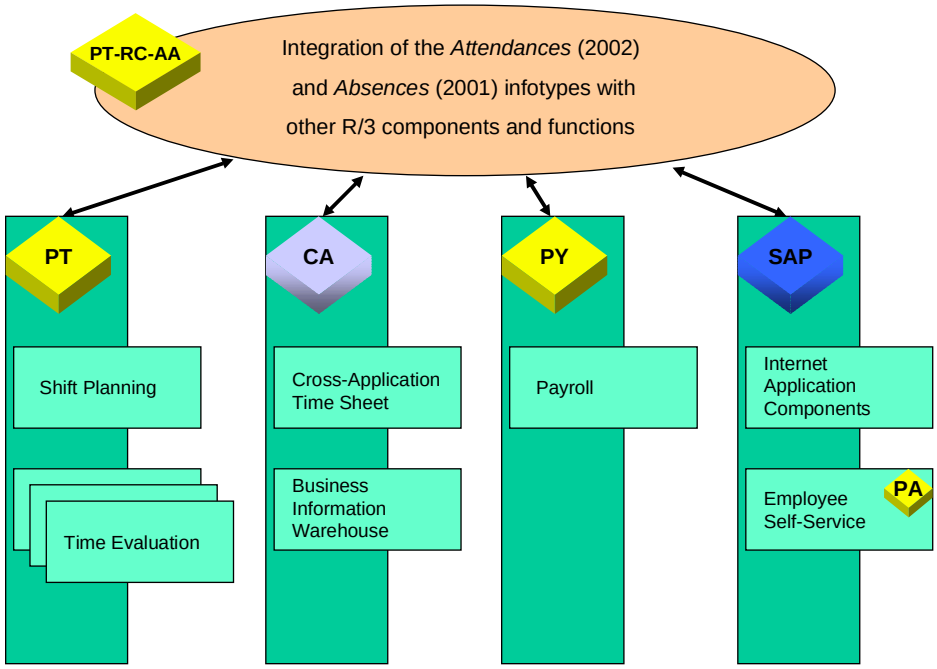
- Leave
- Doctor's appointments
- Illness

You can specify data entry checks that permit or prevent the entry of specific attendances and absences.

Implementation Considerations

The *Attendances/Absences* component is a prerequisite for the use of the *Time Data Recording and Administration* component. The *Attendances/Absences* infotypes (2002/2001) offer diverse functions and a high degree of user-friendliness, and thus provide a high level of flexibility in the recording, evaluation, and payment of your employees' working time.

Integration



Possible Integration with Other Human Resources Components

Desired Function	Required Component
Recording an employee's working times	Time Data Recording and Administration (PT-RC)
Planning and recording working times	Shift Planning (PT-SP)
Evaluating an employee's working times	Time Evaluation (PT-EV)
Running the payroll for an employee	Payroll (PY)

Possible Integration with Other R/3 Components

Desired Function	Required Component
Cross-application time recording for internal and external employees in Time Management	Cross-Application Time Sheet (CA-TS)
Employees recording their own working times	Employee Self-Service
Display and overview of an employee's shift plan	Internet Application Component
Determining an employee's availability for capacity planning and distribution of requirements	Capacity Planning (PP-CRP)
Summary of features, indicators, and units for data requirement and processing to facilitate decision-making.	Business Information Warehouse (CA-BW)

By integrating the *Attendances/Absences* component with other components and functions, you can record attendance and absence times in a decentralized manner, or let employees record the data themselves. This enables you to optimize data entry in the personnel department, for example, and thus save resources, which can then be used in other areas.

By integrating this component, an overview of all current data is then made available to all areas in Time Management. If an absence is recorded for an employee, for example, this information is automatically made available to all integrated components and functions, and in this way, conflicts are avoided if time data is processed in more than one area at the same time.

The integration of the *Attendances/Absences* component with the *Time Evaluation* and *Payroll* components enables the recorded time data to be automatically evaluated and accounted according to the criteria that you specify.

Features

The *Attendances/Absences* component contains the *Attendances* infotype (2002) and the *Absences* infotype (2001). You can define company-specific attendance and absence types and reasons for the infotypes. For attendance or absence types such as leave or seminar attendances, the relevant time information is recorded either centrally by the personnel department, or decentrally, by the employees themselves, for example. The system then compares this time information with the employee's specified working time and evaluates the information. The result of time evaluation is then made available to Payroll, where it is used in the calculation of the gross wage.

Quotas

Purpose

You can use this component to set up and administrate time accounts, which concern employees' absence entitlements and attendance and overtime approvals.

Implementation Considerations

The functions used for accruing and deducting time accounts are available in the *Time Data Recording and Administration* component. If you also use the *Time Evaluation* component (RPTIME00), additional options are available for controlling the accrual and deduction of time accounts.

Integration

Possible Integration with Other Human Resources Components

Desired Function	Required Component
Compensating absence entitlements	Payroll
Valuating absences according to the absence entitlement from which the absence was deducted	Payroll

Possible Integration with Other Time Management Components

Desired Function	Required Component
Evaluating overtime approvals automatically	Time evaluation
Using current time data to automatically accrue absence entitlements periodically	Time evaluation
Managing compensation accounts (for example, overtime compensation account)	Time evaluation

Features

Managing Time Accounts

- Time accounts can be accrued and deducted online. Default values can be defined to simplify data entry, for example, creating annual leave.
- Time accounts are defined individually for each quota and employee with regard to the quota amount, the validity period, and the deduction period.
- Online checks of the existing time credit ensure that time accounts are deducted in a controlled manner.
- Time accounts can be deducted over and above the entitlement until specified limits are reached.
- When time accounts are deducted, the system takes account of specified deduction sequences in relation to the quota type, the validity period, and the deduction period.

- Time accounts can be administrated in days or hours.

Special Functions for Managing Absence Entitlements

- Absence entitlements can be accumulated automatically.
- Absence entitlements can be compensated financially.

Time Account Administration

- A special user interface is used to display information on accounts and to check and postprocess balances.
- The time account statuses can be projected for the future to plan the anticipated overtime, for example, or to predict the expected absence entitlements.
- Employee Self-Service applications enable employees to request leave or print time statements, for example.

Absence Quotas Infotype (2006)

Definition

You use this infotype to manage time accounts that represent employees' absence entitlements or time credits. The time accounts contain a particular number of days or hours, during which time employees are permitted to be off work.

Use

You can use the infotype to manage the following time accounts, for example:

- Employees' annual leave
- Time in lieu accounts, containing hours of overtime for which employees are permitted to claim time in lieu
- Entitlements to paid absences in the case of illness

Structure

Accrual and deduction of absence quotas

Absence quotas can be recorded manually, proposed by the SAP System, or accrued automatically. An employee can claim an absence quota by

- Requesting an absence such as leave

  In this case, you record an absence in the *Absences* infotype (2001). The absence is deducted from the quota. For more information, see Maintain Absences with Quota Deduction [Page 168].

- Requesting remuneration for the times

  In this case, you record a compensation. The compensation is deducted from the quota. For more information, see Time Quota Compensation Infotype (0416) [Page 343].

When an employee claims time from a quota, the SAP System deducts the requested time from the quota until it is used up. The quota can only be deducted further if the Customizing settings stipulate that the quota can also be deducted up to a particular negative number.

Absence quota type

Absence quotas with an identical content, such as leave, are grouped into an *absence quota type* in Customizing. *Absence quota types* are subtypes of the *Absence Quotas* infotype (2006). Time accounts are managed in hours or days (*Unit* field), according to the absence quota type of the quota from which the absence is deducted.

Validity and deduction period

Absence quotas are only valid for a particular validity period, for example, the leave year or the month in which overtime hours were worked. The deduction period stipulates when a quota can be deducted. The deduction period need not be the same as the validity period.

Employees in your enterprise receive an annual leave entitlement of 20 days. The corresponding absence quota has a validity period of one year. for example, January

1, 2000 to December 31, 2000. The quota has a deduction period from January 1, 2000 to March 31, 2001, that is, employees can take leave up to three months after the end of the leave year.

Time intervals for absence quotas

You assign absence quotas by defining a total entitlement an employee has to an absence for a validity and deduction period. You can specify clock times to stipulate that only partial-day absences within this time frame may be deducted from the quota.

Absence quotas accrued automatically

Absence quotas can be accumulated automatically in time evaluation. You cannot change automatically accrued absence quotas manually in the *Absence Quotas* infotype (2006). Instead, you use the Quota Corrections [Page 225] infotype (2013).

Recording absences

When you enter an absence with quota deduction or quota compensation, the SAP System checks the existing quotas. The absence record or compensation can only be saved if the employee has sufficient quota.

Time account statuses

To aid data entry when you record absences or compensation, the system displays the absence quotas that can be deducted on the current date, with their deduction period. Additional time account statuses for the absence quota provide information on the current deduction status:

Account status	Meaning
Entitlement	Specifies an employee's total entitlement to an absence entitlement for a particular period, for example, leave/year or compensation hours/month
Remainder	Specifies the available entitlement for which the employee can still deduct absences or have compensated
Requested	Specifies the portion of the entitlement for which absences have been recorded, for past or future dates **Note:** In the Employee Self-Service application *Leave Request,* the *Requested* field specifies the portion of the entitlement for which absences or compensation have been recorded for future dates.
Compensated	Specifies the portion of the entitlement that has already been compensated

You can display an overview of your employees' time account statuses. For more information, see Obtaining Information on an Employee's Absence or Attendance Quotas [Page 316] .

See also:

Maintaining Absence Quotas [Page 209]

Attendance Quotas Infotype (2007)

Definition

You use this infotype to manage time accounts that represent employees' attendance approvals.

Use

Employees' working times affect costs. You can therefore use the *Attendance Quotas* infotype (2007) to specify how many hours an employee is permitted to work, and at what times. The SAP System monitors how these time accounts are accrued and deducted.

You can use the infotype to manage the following time accounts, for example:

- Approvals for an employee to use a set number of days each year for further training
- Approvals for an employee to work a set number of overtime hours at set times over a set period

Structure

Accrual and deduction of attendance quotas

You record attendance quotas manually for an individual employee, or using fast data entry for a group of employees. When an employee uses an approval, the SAP System deducts the time worked from the account.

Attendance quota type

Attendance quotas with an identical content, such as overtime approvals, are grouped into an *attendance quota type* in Customizing. Attendance quota types are subtypes of the *Attendance Quotas* infotype (2007). Time accounts are managed in hours or days (*Unit* field), according to the attendance quota type of the quota from which the attendance is deducted.

Validity period

Each attendance quota is valid for a particular period. After the validity period has expired, attendances can no longer be deducted from the quota.

Time intervals for attendance quotas

You can also set up attendance quotas for specific clock times. This allows you to assign quotas that can only be deducted at a particular time of day.

Your employees have approval to work overtime from 5:30 p.m. to 7:30 p.m. in July. They are not permitted to work more than 20 hours of overtime in that month, however.

Deduction of attendance quotas

The following attendances can be deducted from attendance quotas:

- Working times recorded in the *Attendances* infotype (2002)

  When you enter an attendance type with quota deduction, the system checks the existing quotas. The attendance record can only be saved if the employee has sufficient quota. The system automatically updates the amount of quota used.

For more information, see Maintain Attendances with Quota Deduction [Page 180].

- Working times originating from employees' time postings

  Time evaluation is able to recognize from the employee's time postings whether he or she worked longer one day. It is able to check whether the employee has an appropriate overtime approval.

Attendances are deducted from the attendance quota until the quota is used up. Depending on your Customizing settings, an absence quota can also be deducted into negative numbers.

You can also use this infotype to create a general overtime approval for an employee. You do this by creating an attendance quota of zero hours. In this case, the attendance quota must be deducted automatically be time evaluation.

Remuneration or time in lieu

If you use time evaluation, you can use the *Overtime compensation type* field to control whether overtime is to be remunerated or converted to time off.

See also:

Maintaining Attendance Quotas [Page 214]

Quota Overview: Checking, Valuating, and Correcting Quotas

Use

The quota overview provides you with access to all information and program functions in the environment of attendance and absence quota administration . From the quota overview, you can check quota credits and correct them if necessary. Quota entitlements are entered manually using the *Absence Quotas* (2006) and *Attendance Quotas* (2007) infotypes, or calculated during time evaluation.

For more information on generating absence quotas and leave in time evaluation, see Automatic Accrual of Absence Entitlements [Page 321].

Features

Information on the status of quotas

You obtain an overview of an employee's absence and attendance quotas. This includes information on the amount of quota entitlement available, the amount of quota already requested, and the remaining entitlement.

You obtain a detailed overview of all accrual entitlements determined in time evaluation and of the quotas transferred to the *Absence Quotas* infotype (2006).

Branching infotypes

You can go directly to the following infotypes to correct quotas and quota deduction:

- *Absence Quotas* (2006) and *Attendance Quotas* (2007) to correct quotas that were entered manually
- *Quota Correction* (2013) to correct absence entitlements determined in time evaluation

  There is a special function for transferring the newly calculated entitlements straight to the *Absence Quotas* infotype (2006) after the next run of time evaluation. They are then available for deduction.
  You can use this function so that employees who are leaving the company can use up or be compensated for all remaining absence entitlement, for example.
- *Absences* (2001) and *Attendances* (2002) to correct quota deduction data or maintain attendances and absences
- If employees want to have their absence entitlements remunerated, you can branch to the *Quota Compensation* infotype (0416).

  See also: Time Quota Compensation Infotype (0416) [Page 343]

Projecting absence entitlements

You can make a projection of future attendance and absence entitlements. This allows you to say how much leave quota an employee is likely to have at the end of a leave year, for example. The projected entitlements are not saved when you exit the quota overview.

You can, however, print the attendance and absence entitlements determined for an employee. You may want to give the employee a printout of entitlements you have projected for him or her, for example.

Contextual information

You have the following options for obtaining additional information:

- You can go straight to the *Time Management pool* to check the balances determined for the employee in time evaluation, for example.
- You can obtain information on employees' attendances and absences by calling the relevant reports straight from the quota overview.
- With the correct technical prerequisites, the system can automatically dial the telephone number of the employee being processed.

Obtaining Information on an Employee's Attendance or Absence Quotas

Prerequisites

You can display an employee's attendance or absence quotas in a special overview. Attendance or absence quotas must have already been entered manually for the employee using the *Attendance Quotas* (2007) or *Absence Quotas* (2006) infotypes, or generated in time evaluation.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Quota overview.*
2. Enter the relevant personnel number.
3. Choose the required selection intervals.
4. Choose *Absence quotas* or *Attendance quotas*.

Result

You obtain an overview of all the employee's attendance or absence quotas for the selection intervals you specified. For absence quotas, the *Det. ent.* field (indicator for determining quota entitlement) shows whether the entitlement was entered manually or automatically.

This overview only provides information on the employee's absence quotas from infotype 2006. For information on leave entitlement maintained using the *Leave Entitlement* infotype (0005), choose *Environment* → *Leave entitlement.*

Obtain Information on an Employee's Accrual Entitlements

Prerequisites

You can display the absence entitlements generated for an employee in time evaluation in a special overview. The overview provides information on the absence entitlements generated during the various runs of time evaluation, and on the values accrued in time evaluation and transferred to the *Absence Quotas* infotype (2006).

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Quota overview.*
2. Enter the relevant personnel number.
3. Choose the required selection intervals.
4. Choose *Accrual information*.

Correct Absence Quotas

Prerequisites

You can use the *Quota Overview* to correct an employee's absence entitlements. There are two different procedures, depending on how the absence entitlements originated:

- If they were entered manually, you branch to the *Absence Quotas* infotype (2006), where you make the corrections manually.
- If they were generated in time evaluation, you enter a correction to the quota. The SAP System makes the correction in the next time evaluation run.

Under *Quota information*, the *Det. ent.* field (indicator for determining quota entitlement) shows whether the entitlement was entered manually or automatically.

Certain quotas do not permit manual corrections. For these quotas, you can only transfer the entitlement generated by time evaluation directly to the *Absence Quotas* infotype (2006).

Correcting absence entitlements entered manually:

1. Choose *Human resources → Time management → Administration → Time data → Quota overview.*
2. Enter the relevant personnel number.
3. Choose the required selection intervals.
4. Choose *Absence quotas*.
5. Choose *Expand*.

   You obtain an individual overview of all the employee's existing absence quotas.
6. Select the absence quota you want to correct.
7. Choose *Entitlement*.

   The *Absence Quotas* infotype (2006) appears, where you can make the required changes.
8. Choose *Back*.

Correcting absence quotas generated in time evaluation

1. Choose *Human resources → Time management → Administration → Time data → Quota overview.*
2. Enter the relevant personnel number.
3. Choose the required selection intervals.
4. Choose *Accrual information*.
5. Choose the accrual entitlement you want to correct.

   There are three ways of doing this:

a) Select the relevant accrual entitlement and choose *Create correction*.
You can change all values except the generated quota entitlement.

b) Go to the line for the relevant accrual entitlement and choose *Correction*.
If you choose this option, you can only enter the correction entitlement and data on the system activities. You can recognize corrections that have already been made by the fact that the arrows are highlighted in color.

c) Choose *Correction* and enter the entitlement and all other required data manually.

A dialog box appears. Make the corrections in the dialog box.

6. Enter the correction entitlement.
7. Specify how you want the correction entitlement to be processed in time evaluation.
8. If required, specify that you want the new entitlement to be transferred straight to the *Absence Quotas* infotype (2006) after the next run of time evaluation.
You may want to do this if an employee is leaving the company, for example.
9. Choose *Continue*.
10. If necessary, run time evaluation again so that you have access to the most recent results.

    To do this, choose *Edit* → *Time evaluation.*

Result

You have corrected an absence quota.

Correcting Attendance and Absence Quota Deduction

Prerequisites

From the quota overview, you can go straight to the *Absences* (2002) and *Attendances* (2002) infotypes and correct absence or attendance data.

You may want to correct attendances or absences that have already been entered for an employee if, for example:

- An employee returns to work earlier than planned after a period of leave
- An attendance or absence entered for a future date has to be changed

Besides correcting existing data, you can also enter new attendances or absences.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Quota overview.*
2. Enter the relevant personnel number.
3. Choose the required selection intervals.
4. Choose the *Absence quotas* or *Attendance quotas* tab page.
5. Choose *Expand*.

   You obtain an individual overview of all the employee's existing absence or attendance quotas.
6. Select the attendance or absence quota for which you want to change deduction data.
7. Choose *Deduction*.

   If several attendances/absences have been deducted from the quota, a list is displayed from which you can select the attendance/absence you want to process. Otherwise, the *Absences* (2001) or *Attendances* (2002) infotype maintenance screen appears immediately. You can now make the changes or enter new attendances or absences.

Result

You have changed attendances or absences that were deducted from a quota.

Automatic Accrual of Absence Quotas

Use

The functions for the automatic accrual of absence quotas allow you to cumulate absence entitlements, such as leave, automatically, on the basis of various criteria.

You can grant absence quotas according to the following business requirements or standard and legal agreements:

- A general absence entitlement for a particular period, for example, the general annual leave in advance for one leave year
- A proportionate absence entitlement dependent on performance, for example, according to the time worked in the previous period
- A proportionate absence entitlement periodically, for example, a proportionate annual leave entitlement for each month or payroll period
- Absence entitlements on the basis of special activities, for example, time in lieu of overtime

  The SAP System enters the absence entitlements in the *Absence Quotas* infotype (2006) as a deductible quota.

Integration

You can accrue absence quotas within time recording or in day processing of time evaluation. It is not planned to integrate the function into the day processing part of payroll.

Features

Methods for the automatic accrual of absence quotas

You can use the following methods to accrue absence entitlements:

- Automatic generation in time evaluation using function QUOTA
- Calculation of absence quotas using the *Generate Absence Quotas* report (RPTQTA00).
- Specification of default values when creating records for the *Absence Quotas* infotype (2006)

Calculation of individual absence quotas and the amount of entitlement

Absence entitlements are accrued according to the rules you define in Customizing. You can determine rules to control the following aspects of an absence quota:

- Validity period
- Deduction period
- Amount of entitlement (quota number)

Tool for the administration of automatically determined absence quotas

From the *Quota Overview* (transaction PT50), you can access all information and program functions in the environment of quota administration. You can check the quota credits that have been calculated, and correct and compensate them if necessary.

Methods of Absence Quota Accrual

Use

You can use different methods for granting employees absence quotas, according to standard, contractual, or legal requirements. These methods include:

- Manual entry of absence entitlements in the *Absence Quotas* infotype (2006), where employees are granted absence entitlement according to particular criteria
- Specification of default values when creating records for the *Absence Quotas* infotype (2006)
- Fully automatic granting of entitlements, whereby changes can only be made to the entitlement in exceptional cases

If you use these methods, you only need to enter the quota number and the validity and deduction periods manually for special absence entitlements such as special leave. The methods for automatic calculation of absence entitlements determine this data using the entries from unique Customizing tables. This means that the time administrators' workload is reduced noticeably.

Integration

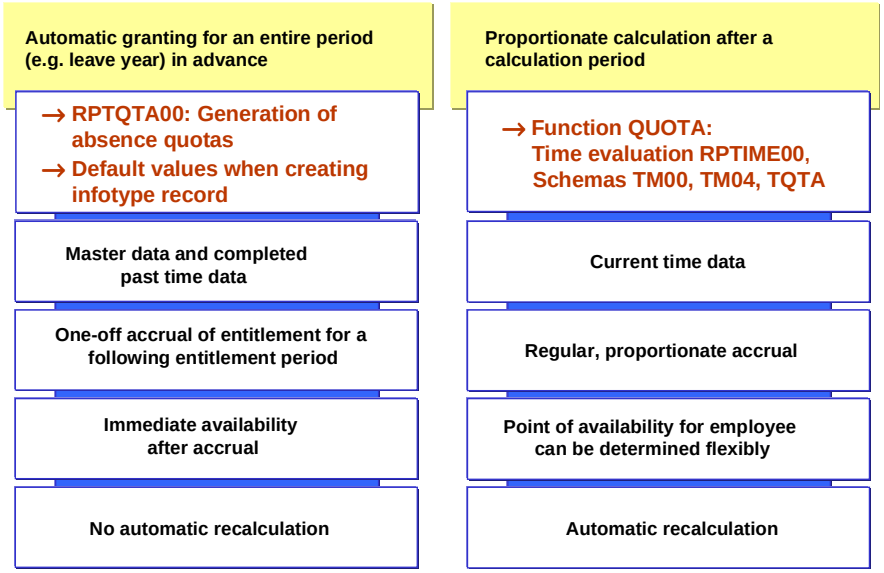
- Online entry of absence quotas in *Time Data Recording and Administration* (PT-RC)
- Entry of absence quotas in the *Hiring* action in *Personnel Administration* (PT-PA)
- Generation of absence quotas during evaluation of time data in *Time Evaluation* (PT-EV)
- Link to *Employee Self-Service*

Prerequisites

You must have created the necessary prerequisites in Customizing for the generation of absence quotas. For more information, see the Implementation Guide for Time Management.

Features

Overview of the Methods for Automatic Accrual of Absence Entitlements



The method you choose to use for accrual depends on whether you grant the absence entitlement in advance or proportionately after a calculation period.

General granting of an absence entitlement in advance

This scenario is used typically for annual leave, which is granted in advance for a calendar year. Employees deduct from this time account over the whole year.

The calculation basis for determining the entitlement is the employee's master data and age or seniority. If you implement time evaluation, you can also take account of completed time data from the past.

The entire entitlement is accrued once, and is available immediately in the *Absence Quotas* infotype (2006).

- General annual leave that is granted on the basis of organizational or personal data, such as age or seniority
- Annual leave that is determined according to the employee's performance in the previous year, for example, according to the relationship between the employee's productive hours worked and the planned hours
- Annual leave that is accrued proportionately after each month

If you grant a general absence entitlement, you can overwrite the records generated in the *Absence Quotas* infotype (2006) manually. The following methods are available for granting general entitlements in advance:

1. For individual employees, using default values

   When a time administrator enters a record in the *Absence Quotas* infotype (2006) for an employee, the system proposes the validity period, deduction period, absence quota(s) and entitlements automatically.

2. For multiple employees, using report RPTQTA00

   You can use the *Generate Absence Quotas* report (RPTQTA00) to generate absence entitlements for groups of employees. If you schedule the report, you can also determine absence entitlements proportionately, for example, for each month.

Proportionate calculation of absence entitlement after expiration of a calculation period

This scenario can be applied typically for standard annual leave for which the entitlement increases at the end of the payroll period. In this procedure, employees do not receive absence entitlements until they have worked a certain number of hours, for example. You must implement time evaluation to be able to use this procedure.

If an employee has completed the planned hours, he or she receives an absence entitlement of 1.5 days. The entitlement is available for deduction over the following 3 months.

An employee has worked up 10 hours of *time off for overtime.* This quota is available at the end of the time evaluation period. He or she can claim it within the following month.

The entitlement is accrued periodically by function QUOTA on the basis of the current time data. An employee's total entitlement, for example, for each year, is calculated proportionately for each calculation period.

The calculation period and the time at which the quota is available to the employee are not related. This allows you to control flexibly the availability of quotas in the *Absence Quotas* infotype (2006). A further advantage of implementing time evaluation is that you can use the full functionality of the recalculation.

If you want to take advantage of time evaluation's automatic generation function, but do not implement time evaluation, you can use the standard schema TQTA. The schema enables you to represent relatively simple situations such as the proportionate calculation of entitlements per evaluation period, month or year.
Employees who are evaluated with this schema must be assigned the *Time Management status* 7 - *Time evaluation without payroll integration* in the *Planned Working Time* infotype (0007).

Calculation of Absence Entitlements

Use

The function for calculating absence entitlements is used for the automatic accrual of absence quotas.

The SAP System calculates an employee's individual absence entitlements and enters them as a deductible quota in the *Absence Quotas* infotype (2006).

You can base the calculation and the transfer of the accrual entitlement to the *Absence Quotas* infotype (2006) on a variety of different criteria.

Prerequisites

You define rules for calculating absence entitlements in Customizing. Choose *Personnel Time Management → Time Data Recording and Administration → Managing Time Accounts Using Attendance/Absence Quotas.*

Features

Explanation of terms: Base entitlement and base period, accrual entitlement and accrual period, transfer time

Base entitlement	The employee's total entitlement for a specific period. The base entitlement is a theoretical value that is used as the basis of the calculation.
Base period	The period for which the base entitlement is valid.
Accrual entitlement	The employee's quota entitlement per accrual period, as calculated in time evaluation. The calculation is based on the base entitlement. A comparison of the base period and the accrual period converts the base period to the accrual period.
Accrual period	Period for which the accrual entitlement is calculated.
Transfer time	Point at which the accrual entitlements determined in time evaluation are transferred to the *Absence Quotas* infotype (2006). They increase or replace the existing value in the infotype. The transfer time can be defined by the user. If there is not an absence quota of this type for the relevant validity period, the system creates one.

Taking account of the length of time an employee has been with the company

You can define different rules for the accrual of absence entitlements according to the hiring date. This allows you to:

- Specify more favorable rules for employees who have been with the company longer
- Implement new contractual agreements for new employees by extending existing selection rules for absence quota types

Determining the total entitlement

In Customizing, you define for each absence quota type and employee grouping a base entitlement to an absence entitlement (in days or hours) in relation to a specific period (for example, a calendar year). It is determined from the employee-specific working time results, or according to the employee's master data. If you want to grant the absence entitlement proportionately, the base entitlement serves as a calculation basis for which the proportionate entitlement (accrual entitlement) is determined per accrual period.

Determining the accrual entitlement

The SAP System determines the accrual entitlement by comparing the base period to the accrual period. If the accrual period does not correspond to the base period, the entitlement is calculated for the accrual period.

The base entitlement of 18 days is related to a base period of one year. The accrual period is 1 month. The entitlement per accrual period is 18 (days) / 12 (months) = 1.5 days per month.

In some cases, the accrual periods cannot be divided exactly in the base period. The R/3 System then calculates how often an accrual end date occurs in the base period, and uses this value as a divisor.

Taking account of seniority or age

The base entitlement can vary according to age or seniority. You can specify different base entitlements for different age or seniority ranges.

Employees with a seniority of 0-4 years are allocated a base entitlement of 20 days of standard annual leave, employees who have been with the company for 5-10 years receive 22 days.

If an employee's age or seniority changes within an accrual period, this can be taken into account by the system.

Refining the calculation of entitlements

You can specify a general base entitlement for all employees in a personnel calculation rule, or you can vary the base entitlement by specifying certain conditions and subrules. This allows you to base the entitlement on other master data or organizational assignments.

Employees with pay scale type 01 have a base entitlement of 2 days, employees with pay scale type 02 have 2.2 days of leave per month.

You can also control the calculation of the accrual entitlement individually in a personnel calculation rule. This allows you to generate absence entitlements on the basis of hours worked.

- You do not want casual employees to be allocated as much leave as regular employees.
- You only want an employee to be entitled to the full base entitlement if he or she has completed a certain number of working hours.

Rounding and reducing entitlements

Calculation of Absence Entitlements

The entitlements can be rounded and reduced. If you grant absence entitlements on the basis of performance, you can define a maximum entitlement so that a certain value cannot be exceeded.

You can enter any surplus entitlement and differences resulting from a reduction in special absence quotas. This allows you to document reduced times or accumulate them in entitlements to unpaid absences, for example.

Transferring accrual entitlements to the Absence Quotas infotype (2006)

If you implement time evaluation, you can define the transfer time for the accrual entitlements in the *Absence Quotas* (2006) infotype. This enables you to make the absence entitlements available as a deductible quota as of a certain time, for example, not until the following payroll period or only as of the end of the probationary period (*Date Specifications* infotype (0041)). You can define *transfer packages* to prevent very small quota values being transferred.

You do not want the quota entitlement to be transferred to the *Absence Quotas* infotype (2006) until it amounts to 2 hours.

Activities

If you want to determine accrual entitlements on the basis of hours worked, you must supply the necessary information from time evaluation. The system calculates the accrual entitlement according to an employee's hours worked as follows:

The system uses the base entitlement to determine a theoretical accrual entitlement which the employee would be granted if he or she completed 100% of the planned hours. It then multiplies this entitlement by the current value of the day or period balance that you specified in the *Set generation rules for quota selection* step in Customizing.

The value of the day or period balance is determined using a personnel calculation rule. In it, the actual hours worked are divided by the planned hours in the personal work schedule. The value determined is placed in the time type.

An employee has a leave entitlement (=base entitlement) of 24 days for each year (base period). The leave entitlement is accrued monthly and placed in the *Absence Quotas* infotype (2006). The employee was on leave this month and therefore only worked half of his or her planned working hours.

If the employee completes the planned hours for each month, he or she receives an accrual entitlement of 2 days per month. The actual accrual entitlement is determined by multiplying the 2 days by the value in time type 9999:

Time type 9999 is determined from:	80 hours of attendance _____ 160 hours of planned time according to personal work schedule	Value determined in time type 9999 = 0.5

2 days of theoretical accrual entitlement if planned hours are completed	Multiplied by value in time type 9999 = 0.5	**Accrual entitlement is 1 day**

Reduction of Accrual Entitlements

Use

You may not want to allocate the full entitlement to an absence quota to employees who:

- Did not work for the whole of an accrual period
- Worked part-time
- Had certain absences

To represent this requirement, you can use personnel calculation rules to determine accrual entitlements on the basis of hours worked. If you do not use this function, you can use table control to reduce the accrual entitlements determined by the system on the basis of employees' master data or absences.

Features

The following factors can lead to a reduction of accrual entitlements:

- The lower productivity of part-time employees for whom you do not want to define separate rules for quota accrual
- Inactive employment periods due to an employee joining or leaving the company
- Certain absences that are treated as inactive days, for example, unapproved absences

  You can specify exact rules in Customizing for reducing absences that you want to be treated as inactive days. Only absences of one day or more can cause a reduction. For each absence type, you can specify the minimum number of payroll days that should lead to a reduction. You can also set a maximum reduction value that must not be exceeded.

- Minimum: You want a period of work incapacity to lead to a reduction only if it lasts longer than 3 days.
- Maximum: You want no more than 10 days to be reduced per accrual period for a particular absence type.

You can mark reduced times in special absence quotas.

Rounding of Accrual or Absence Entitlements

Use

Accrual entitlements do not comprise whole numbers in most cases, since they originate from divisions. This makes it more difficult to deduct the full entitlement.

It is possible to round the values, however, so that employees can always deduct their full entitlement, for example.

Features

There are two methods of rounding entitlements. You can either use one or both of them:

- Rounding the calculated accrual entitlements
- Rounding the absence entitlements in the *Absence Quotas* infotype (2006). The entitlements are rounded when they are transferred to the infotype (transfer time).

Projecting Accrual Entitlement for a Future Period

Use

If absence quotas are generated on a pro rata basis in time evaluation, you can only say approximately how much entitlement an employee is likely to have at a specific point in the future. This makes it difficult for the employee to plan his or her leave, for example.

You can use the *Projection* function to start time evaluation for future periods.

Features

- Time evaluation calculates the employee's expected leave under the assumption that the employee will have worked according to his or her planned working times. There is a special schema for running evaluations for future periods.
  SAP provides a sample schema.
- The expected accrual entitlements are displayed in the quota overview. You can print a copy for the employee. They are not saved when you exit the quota overview.

Deducting Absence Quotas

Use

Absence quotas represent employees' time credits. Time credits represent times when employees are not required to be at work and times that they have already used up. Company policies, collective agreements, and legal requirements determine how time credits are to be deducted.

The functions for deducting absence quotas enable you to comply with the necessary regulations. The functions ensure that employees' time credits are deducted in accordance with the defined rules and are supported by the system.

Features

You can customize how absence quotas are deducted. In the Implementation Guide, you determine whether:

- Absences such as *leave, time in lieu of overtime,* or *sick leave* are deducted from the absence quota

  See also: Deduction by Absences [Page 334]

- The absence quota can be remunerated

  See also Compensating Time Quotas [Page 335]

- The absence quota can be deducted over and above the entitlement until specified limits are reached

You can customize deduction sequences for absence quotas that relate to the quota type, the validity period or the deduction period. Deduction rules must be assigned to the counting rules. For more information, see the Implementation Guide for Personnel Time Management, by choosing *Time Data Recording and Administration → Managing Time Accounts Using Attendance/Absence Quotas → Quota Deduction Using Attendances/Absences.*

Deducting Absences from Absence Quotas

Use

This function is used to deduct absences such as *leave, time off in lieu of overtime,* or *entitlement to paid sick days* from employees' leave entitlements.

An employee has a total entitlement to 20 days of leave each year. The employee takes eight days of leave, which is entered in the SAP System using absence type 0100 (*Leave*). The remaining entitlement available for deduction is 12 days.

Prerequisites

Absences that are deducted from absence quotas must be flagged as such in Customizing. For more information, see the Implementation Guide for Personnel Time Management, by choosing *Time Data Recording and Administration → Absences → Absence Catalog → Absence Counting → Assign Absence Types to Counting Rules.*

Deduction rules must be assigned to the counting rules. For more information, see the Implementation Guide for Personnel Time Management, by choosing *Time Data Recording and Administration → Managing Time Accounts Using Attendance/Absence Quotas → Quota Deduction Using Attendances/Absences.*

Features

- Absences that reduce absence entitlements are recorded online in the SAP System. Absences can also be recorded using Employee Self-Service applications. When data is entered, the system checks whether the employee has sufficient entitlement in the *Absence Quotas* infotype (2006).
- If the employee does not have sufficient entitlement, the absence cannot be entered.
- When users enter absences that are deducted from absence quotas they can check the *Leave requested* field to see how many days or hours are deducted from a quota.

Compensating Time Quotas

Use

Time quota compensation (compensation for short) allows a financial remuneration of absence entitlements that are not intended for deduction by absences.

- You want to pay employees for unused leave
- An employee is leaving the company and wants to have all absence entitlements remunerated
- An employee has worked overtime, which was credited to his or her time-off account. The employee now wants to be paid for the overtime instead of taking time in lieu.

Prerequisites

- You use the *Absence Quotas* infotype (2006) to manage your employees' absence entitlements.
- You have set up Customizing for quota compensation. For more information, see the Implementation Guide by choosing:

  Personnel Management → *Personnel Administration* → *Payroll Data* → *Compensations*

  Payroll → *Payroll <country>* → *Time Quota Compensation*

Features

- Compensation is entered online in the *Time Quota Compensation* infotype (0416). When a compensation record is entered, the remaining quota in the *Absence Quotas* infotype is reduced by the specified value.
- Compensation records are entered for a particular key date. The *Payroll* component processes the compensation records in the payroll period in which the validity date of the time quota compensation infotype record lies.

  The compensation records are processed in Payroll by function P0416 in schema XT00 (where x = country indicator).

  Changes to the quota remainder take immediate effect in *Time Management,* even if the compensation has not yet been processed in *Payroll.*

- You can control the data entry work required of administrators by setting up subtypes of the *Time Quota Compensation* infotype (0416) in Customizing. The subtypes are referred to as *time quota compensation methods.*

  See also: Methods for Compensating Time Quotas [Page 337]

- In Customizing, you can stipulate that particular absence quotas be excluded from a compensation. This means that you can prevent absence entitlements intended only for time in lieu from being remunerated.

Compensating Time Quotas

- You can also compensate absence entitlements that have already expired or that are not yet available for deduction. The validity and deduction periods of absence quotas are not taken into account when entitlements are compensated.
- You can specify in Customizing how you want each *time quota compensation method* to be remunerated. For example, you can specify that you want the compensation to be dependent on the validity period of the deducted quota.

  You want to remunerate remaining leave from the previous year. You want the employee to receive the remuneration that applied in the previous year.

  For more information, see Remunerating Time Quota Compensation [Page 340].
- If you have knowledge of ABAP programming, you can set up batch processing for compensation by creating a customer-defined program to generate a batch input session. You can enter default values, or specify the *wage type* and/or *number* manually for each quota record. Before you can use this function, you must first use a customer-defined program to provide the internal quota counters (QUONR field) of the employees' absence quota records.

  You want to compensate *time off in lieu of overtime* for all employees for the deduction interval 04/01/2000 – 04/30/2000.

Methods for Compensating Time Quotas

Definition

You customize your own subtypes of the *Time Quota Compensation* infotype (0416) in the Implementation Guide. The subtypes are referred to as *time quota compensation methods.*

Use

You can customize *time quota compensation methods* to control the data entry work involved for compensation records. You do this by defining specifications for the subtypes of the infotype in Customizing. As a result, only particular fields in the infotype may be ready for input. This enables you to reduce significantly the data entry work required of administrators.

Structure

You customize *time quota compensation methods* in the IMG for *Personnel Management* by choosing *Personnel Administration* → *Payroll Data* → *Leave Compensation*

In the IMG, you can set the following basic methods for recording time quota compensation:

Automatic compensation

If you use automatic compensation, you compensate quotas according to predefined rules. Default values for the deduction and remuneration of the quotas are stored in Customizing. This means that in the infotype you only need to enter the amount of quota you want to be compensated.

The following procedures are used to compensate quotas automatically:

- ***Compensation using deduction rules***

  The compensation is controlled by a *deduction rule.* The Customizing settings for the *deduction rule* determine the sequence in which the quotas are deducted. You can use the following criteria to determine the deduction sequence:

- Quota type
- The valid from and valid to dates of the quotas
- The deduction from and deduction to dates of the quotas

- The SAP System deducts first from the quota whose deduction period expires next.
- The SAP System deducts additional leave for challenged persons first, then the standard annual leave
- ***Compensation of individual quotas***

  Quotas of one quota type are compensated. The quota type determines whether days or hours are compensated. The SAP System deducts first from the quota whose deduction period expires next.

Methods for Compensating Time Quotas

Free compensation

You can set up a method for compensating time quotas that allows you to perform free compensation. A free compensation method allows you to overwrite all relevant fields of the *Time Quota Compensation* infotype (0416), including the *Wage type* and *Amount* fields. You use free compensation for unforeseeable situations or situations that are too employee-specific to merit a rule for automatic compensation.

- An employee wants all of his or her absence entitlements to be remunerated at the same time.
- A special remuneration is to apply to the compensation because of a special situation.

The following procedures are used to for free compensation:

- ***Compensation using default – deduction rule***

  You use a deduction rule for the compensation. The SAP System selects the quotas to be compensated based on the specifications you made when you customized the deduction rule.

- ***Compensation using default – quota type***

  You specify a quota type for the compensation. The SAP System deducts the compensation from existing quotas of this type. It deducts quotas in the sequence of the earliest deduction-to date.

- ***Manual compensation***

  For manual compensation, you can overwrite the following infotype fields for each deductible quota:

- No. to compensate
- Wage type
- Amount
- Currency

  In the other forms of compensation, the system determines the specifications for how the compensation is valuated from the Customizing settings. In manual compensation, you can specify a wage type or a wage type/amount for a quota to be compensated. In this case, the rules specified in Customizing for the selection or valuation of a wage type are overridden.

  The following rules apply:

  Fields with input

Field	Field	Field	Processing in Payroll

Number			The wage type is determined using Customizing table T556W (*Assign Wage Types to Quotas to be Compensated)* The wage type is valuated by personnel calculation rule X015 in schema XT00 (where x = country indicator)
Number		*Amount*	The amount entered is the total amount for the compensation. It is transferred, without being multiplied by the number, to the wage type specified in the Customizing table T556W (*Assign Wage Types to Quotas to be Compensated*) **Note:** You must enter the exact number so that the quota can be deducted correctly
Number	*Wage Type*	*Amount*	The wage type is valuated, without being multiplied by the number, using the specified amount. **Note:** You must enter the exact number so that the quota can be deducted correctly

See also:

Maintain Automatic Compensation [Page 344]

Maintain Compensation Using Defaults [Page 345]

Maintain Manual Compensation [Page 346]

Remunerating Time Quota Compensation

Use

You can use this function to determine wage types that are to be used to remunerate quota compensation.

Integration

Quota compensation is remunerated in the *Payroll* component.

Prerequisites

You have set up the *time quota compensation methods* (“compensation methods” for short) in the Implementation Guide for *Personnel Administration.*

You have assigned a wage type to the quotas you want to compensate in the Implementation Guide for *Payroll.*

Features

You can use the following procedures to control how compensation is remunerated:

- The wage type is entered manually in the *Time Quota Compensation* infotype (0416). This can only be done if you use the *free compensation* method.
- The wage type is determined via Customizing for *Payroll.*

There may be situations where you do not want to remunerate quota compensation. You can also represent this in Customizing by making no entry for the *compensation method* or for the *quota type.* In this case the compensation is not remunerated.

Customizing settings to control the compensation

In Customizing, you can define for each *compensation method* and *quota type* which wage type you want to be formed for each compensation.

Selecting the wage type according to the quota deducted

If a compensation method deducts from several quotas, you can form different wage types for each quota type.

You have customized a *compensation method* in which quotas are compensated using a *deduction rule.* The deduction rule contains the quota types *Additional leave for challenged employees* and *Standard annual leave.*

Compensation for additional leave for challenged employees is valuated at a higher rate than standard annual leave. You therefore define a different wage type for each quota type.

Selecting the wage type according to the compensation method used

You can specify that compensation is remunerated according to the compensation method used. For example, this allows you to:

- Remunerate a particular quota in certain situations, but in other situations to have the quota compensation only reduce the absence entitlement.

  A collective agreement stipulates that employees can carry over their existing leave entitlements when they change employers within an industry sector.

  You want to set employees' remaining leave to zero when they leave your enterprise. You use a compensation method to reduce the remaining leave. You do not generate an entry for this compensation method in Customizing for Payroll.

- Select different wage types for the same quotas in particular circumstances, for example, for statistical purposes.
  To do so, you set up different compensation methods that each compensate the same quota type. In Customizing for Payroll you then define different wage types for the different compensation methods.

Selecting the wage type according to the validity period of the quota deducted

You can select different wage types according to the year in which the deducted quota is valid. This enables you to control how compensation of absence entitlements from the previous year or absence entitlement that have already expired is remunerated.

An employee wants the previous year's leave to be compensated. The employee received a salary increase at the start of the current year. Since the leave being compensated is from the previous year, you want the remuneration to correspond to the rate the employee was entitled to in the previous year.

Weighting the quotas to be compensated

You can specify a weighting for the quotas to be compensated, regardless of the percentage rate set in the wage type table (T512W).

This function enables you to:

- Reduce the number of wage types to be defined for the compensation, for example, by
  - Defining one wage type for several employee subareas and a different percentage rate for each *compensation method*
  - Using wage types for the compensation that have been defined for other purposes, for example, time wage types for overtime You can valuate these wage types differently for a compensation.
- Attach a bonus to the *compensation method* instead of to the wage type
- Weight the compensation of quotas so that time in lieu is valuated at a higher or lower rate than remuneration In this case, elements of the absence quota are weighted as being paid at a better rate (for example, at 120%) or as unpaid (for example, at 50%). Any bonuses that are already defined in the wage type are paid at the usual rate.

Remunerating Time Quota Compensation

To represent these requirements, you specify a percentage rate in Customizing that is used to weight the compensation. The number field of the compensation is multiplied by this percentage factor and entered in the wage type.

Time Quota Compensation Infotype (0416)

Definition

Time quota compensation allows a financial remuneration of absence entitlements that have not been deducted by absences.

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*. When the compensations are recorded, the remaining quota or leave that has not been deducted or compensated is reduced by the specified amount.

Structure

- Various methods for compensating quota remainders are defined in Customizing. They simplify the recording of quota compensation. You choose the method you require by specifying a subtype for the infotype.

  For more information, see Methods for Compensating Time Quotas [Page 337]

- The list of *absence quotas* in the infotype shows which quotas can be compensated. It displays all the employee's absence entitlements that are available for deduction on the current day.

  You can branch to the corresponding infotype record by double-clicking the absence quota. This shows additional, detailed information on the quota, such as whether deduction can result in a negative value, for example.

- You can project a recorded compensation. In this process, the SAP System calculates anticipated changes to the quota, without saving the data record. This process is recommended

- If you are unsure whether there is enough remaining quota to perform compensation

- If you want to check which quotas are reduced by a compensation

- You have the option of checking the specified compensation before saving. The check enables you to view which quotas are reduced by the compensation and by how much.

- You can compensate all of an employee's quotas at the same time. This process is recommended if, for example, an employee leaves the company. You must be able to perform *free compensation* to be able to do this.

  The SAP System automatically writes the quota remainder for each quota type to the number field of the compensation in the list of quotas. You can overwrite the number that is determined automatically.

Maintain Automatic Compensation

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*.

For *automatic compensation,* entitlements are compensated fully according to predefined rules – you only need to specify the number to be compensated.

Procedure

1. Choose the *Time Quota Compensation* infotype (0416) and enter the *time quota compensation method* (subtype of the infotype).
2. Enter a validity period. The compensation is valid for the payroll period in which the validity period of the infotype record lies.
3. Choose *Create*.

   The *Create Time Quota Compensation* screen appears.
4. Enter the number of days or hours to be compensated.

   The *Unit* field in the list of *absence quotas* shows whether the quota is compensated in days or hours.
5. If necessary, check the quotas and amounts that will be deducted by the compensation by choosing *Compensate.*

   If you want to correct your data, delete the number you entered and choose *Compensate.* The system undoes your changes. Enter another number and check the result again.
6. Save your entries.

Maintain Compensation Using Defaults

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*.

You can choose between the following methods for compensating absence entitlements using *compensation using defaults*:

- If you specify a *quota type,* the compensation is deducted from this quota, for example, only the employee's *standard annual leave* is deducted.
- If you specify a *deduction rule,* the Customizing settings control how the quotas are deducted. For example, the SAP System first deducts from the *Time in lieu of overtime* quota, and then, when this is used up, deducts from the *Standard annual leave* quota.

You perform *compensation using defaults* using a method known as *free compensation.*

Procedure

7. Choose the *Time Quota Compensation* infotype (0416) and enter the *time quota compensation method* (subtype of the infotype) *Free compensation.*
8. Enter a validity date. The compensation is valid for the payroll period in which the validity date of the infotype record lies.
9. Choose *Create*.

   The *Create Time Quota Compensation* screen appears, in the *compensation using default* mode.
10. Enter a *time quota type* or a *deduction rule.*
11. Enter the number of days or hours to be compensated.

    The *Unit* field in the list of *absence quotas* shows whether the quota is compensated in days or hours.
12. If necessary, check the quotas and amounts that will be deducted by the compensation by choosing *Compensate.*

    If you want to correct your data, delete the number you entered and choose *Compensate.* The system undoes your changes. Enter another number and check the result again.
13. Save your entries.

Maintain Manual Compensation

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*.

Manual compensation allows you to decide which quotas are to be compensated at which rate of remuneration.

You perform *manual compensation* using a method known as *free compensation.*

Procedure

14. Choose the *Time Quota Compensation* infotype (0416) and enter the *time quota compensation method* (subtype of the infotype) *Free compensation.*
15. Enter a validity date. The compensation is valid for the payroll period in which the validity date of the infotype record lies.
16. Choose *Create*.

    The *Create Time Quota Compensation* screen appears, in the *compensation using default* mode.
17. Choose *Manual compensation*

    Some fields in the *absence quotas* list appear ready for input.
18. If required, check the deduction period of the absence quotas in the *Deduction from* and *Deduction to* fields. This enables you to ensure that only expired quotas or no expired quotas are compensated.
19. Enter in the *Compensation* field the number of days or hours to be compensated for each absence quota.

    The *Unit* field in the list of absence quotas shows whether the quota is compensated in days or hours.
20. Enter a *wage type, amount,* and *currency* as required. If necessary, check with the person responsible which special entries you are permitted to make in this field.
21. If necessary, check the quotas and amounts that will be deducted by the compensation by choosing *Compensate.*

    The number specified is copied from the value in the *Remainder* field.
22. Make any corrections necessary, and then choose **`Enter`** again.
23. Save your entries.

Compensate the Entire Remainder

Use

You can use the *Time Quota Compensation* infotype (0416) to remunerate absence entitlements such as *Leave* or *Time in lieu of overtime*.

You can use this procedure to compensate all of an employee's absence entitlements when he or she leaves the company, for example.

Procedure

24. Choose the *Time Quota Compensation* infotype (0416) and enter the *time quota compensation method* (subtype of the infotype) *Free compensation.*
25. Enter a validity date. The compensation is valid for the payroll period in which the validity date of the infotype record lies.
26. Choose *Create*.

    The *Create Time Quota Compensation* screen appears, in the *compensation using default* mode.
27. Choose *Compensate all.*

    The system enters the value from the *Remainder* field in the *Compensation* field for each quota. If necessary, you can overwrite the default values.
28. If required, check the deduction period of the absence quotas in the *Deduction from* and *Deduction to* fields. This enables you to ensure that only expired quotas or no expired quotas are compensated.
29. If required, supplement the entries on the *wage type, amount,* and *currency.* Check with the person responsible which special entries you are permitted to make in this field.
30. Save your entries.

Displaying Absence Quota Information (Report RPTQTA10)

Use

This report creates overviews of employee absence quotas in various aspects. You can display or print out employee quotas, for example, for those who have remaining entitlement during a specified period.

Features

Selection

- You can also use additional selection criteria to restrict the absence quotas to be included in evaluation. You can choose which quota types with what time units and deduction periods are to be available for evaluation.
- You can not only display or print current quota status, but also quota statuses from the past or in the future. To do so, specify the *Key date for deduction* and a *Key date for entitlement* in the selection screen. This data is used in evaluation in the following ways:

  If a selected employee has an absence quota available for evaluation, then…

  – Entitlement for this quota is calculated up to the *Key date for entitlement*, and

  – Deduction, remaining entitlement, and compensation for this quota is calculated up to the *Key date for deduction*.
- You can carry out a *projection of quota status* for the future so that your employees are informed of expected leave entitlement. If the key dates (for entitlement and/or deduction) for a selected employee are the same or greater than the earliest calculation date for Plant Data Collection (PDC) in the *Payroll Status* infotype (0003) and the projection switch is activated, then the system triggers a time evaluation for this employee (RPTIME00 run in simulation mode).
- You can further restrict employee selection from the selection screen. You can display or print out a list at the end of a year that shows the remaining and compensated entitlement for each employee.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control. The list contains the following data:

  – Personnel number

  – Name

  – Quota

  – Unit

  – Entitlement (total entitlement)

  – Quota used up to key date for deduction

  – Quota compensated up to key date for deduction

  - Total quota remaining (= quota remaining up to key date for deduction - quota used from the key date for deduction - quota compensated from the key date for deduction)

    You can modify the list online to suit your requirements. The modified list can be saved as a display variant and then called up again by selecting the *Display variants* field in the selection screen.

- If there are transfer pools (that is, absence quota records that have not yet been transferred to the *Absence Quotas* infotype (2006)) for the selected employees and quota types on the *key date for entitlement*, you can choose the *Transfer pools* button to display a list showing the complete transfer pool for each employee and quota type on the *key date for entitlement*.

Activities

Restrict Employee Selection

In the *Display* mode, you can restrict the number of employees as follows:

- *All selected employees*
  The output list also contains employees without selected absence quota records
- *Only employees with selected absence quota records*
  The output list contains only those employee who were assigned at least one of the selected quota records.

  You can restrict the selection further:

  - *Only employees with entitlement*
    Only the employees whose total entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with remaining entitlement*
    Only the employees whose remaining entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with compensated entitlement*
    Only the employees whose compensated entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with used entitlement*
    Only the employees whose used entitlement does not equal zero or lies within the specified interval are selected.

    If the conditions for both quota entitlement and the remaining quota are set, then only the employees who satisfy *both conditions simultaneously* are selected.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Example

You want to see an overview of the current amount of deductible absence quotas for employees in a certain personnel subarea. Furthermore, you want to know how much total entitlement results from these absence quotas, broken down according to cost centers.

Procedure

Displaying Absence Quota Information (Report RPTQTA10)

1. Access the selection screen for report RPTQTA10.
2. Choose *Current year* as the period.
3. Enter the relevant *Personnel subarea* in the *Selection* section of the screen.
4. Enter the current year as the *Deduction period* in the *Quota selection* section.
5. Choose *Execute.*
6. Choose *Current display variant* and then transfer the *Cost center* field to the list.
7. Select the *Cost center* column in the list and then choose *Subtotals*…

Personnel Time Events (HR PDC)

Purpose

The *Personnel Time Events* enables you to connect external time recording systems to *SAP Time Management*.

If your employees enter the start and end of their working times on time recording terminals, you can use this component to process the resulting time events in *Time Management*.

You can also process employee expenditure data resulting from purchases at company cafeterias and service stations.

Implementation Considerations

Connecting time recording systems with the *Time Management* component in *SAP Human Resources* takes place using a standardized interface.

Time recording systems are connected to the *Time Management* component via the *Plant Data Collection: Employee Times and Expenditures (HR PDC)* interface.

SAP makes these interfaces available to providers of time recording systems. Providers can also have their connections to the interface certified by SAP. In this case, both SAP and the provider of the time recording system are responsible for the interface.

The technology for transferring data has changed as of SAP System Release 4.5A. There are now two versions of CC1 available; both will continue to be supported for the next two functionality releases. The old interface is connected via Communication Channel 1 (CC1).

1. Transceiver-based transfer [Ext.] (CC1)
2. BAPI-based transfer [Page 711] (HR PDC)

In the *Specify communication parameters* step in the *Personnel Time Events* section in the IMG for *Personnel Time Management*, you can specify whether the previous version or the new version of CC1 is in use.

For more information, see Specifying Communication Parameters [Page 355].

Integration

Time events processed from *Plant Data Collection (PDC)* in *SAP Logistics* can also be uploaded to the SAP System using standardized interfaces. Communication with the time recording system takes place using the communication channels CC2, CC3, and so on.

This data can be transferred by any of the *Logistics* components to *Human Resources*, if required. The Plant Data Collection [Page 608] component in *Time Management* can be used for this purpose.

Features

Time recording systems are provided with essential data by the *Personnel Time Events* component.

Personnel Time Events (HR PDC)

Personnel Time Events is then supplied with the recorded data (clock-in/clock-out entries) from the time recording systems during each upload.

Employee expenditures are also transferred to *Time Management* during each upload.

Choose *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem Connection* → *Communication Log* for more information on the last upload and download processes carried out.

Communication Between External Systems and Time Management

Purpose

Personnel time events and employee expenditures entered at an external recording system are uploaded to *SAP Time Management* via the HR PDC interface.

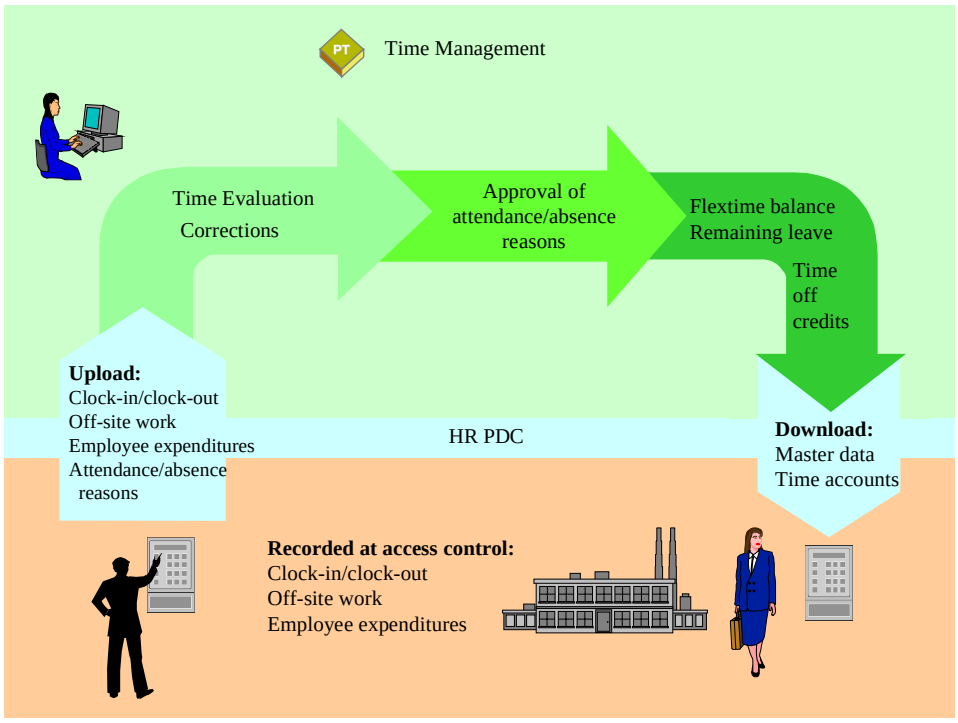
Master data, controlling data and transaction data (such as employee balances) are sent to the recording system.

Prerequisites

This process enables the following functions to be performed at an external recording system, and with the data resulting processed further in the SAP System.

- Recording time events (such as clock-in/clock-out entries, off-site work, breaks)
- Recording employee expenditures (such as company cafeteria data and service station data)
- Recording different payments
- Recording cost assignments
- Access control
- Accessing employee balances at the time recording terminal

Process Flow



Communication Between External Systems and Time Management

Data is exchanged regularly between the time recording system and *Time Management*.

The time recording system is supplied regularly with data from *Time Management* to ensure that data is always up to date (requred for access controls and employee balances for example). The process of transferring data to the time recording system is called a “download.”

There are basically three types of data that can be downloaded:

- Downloading Master Data

  Certain employee master data included in time recording must be downloaded to the time recording system so that validations can be performed. This data can change, making regular downloads necessary.

- Downloading Control Data

  Attendance and absence reasons can be stored in the HR System. This information is entered by employees at the time recording system and then checked. Since this type of data rarely changes, one initial download is sufficient. However, an initial download can be repeated, if required. This procedure does not have to be carried out periodically.

- Downloading Transaction Data

  The employee time balances calculated in time evaluation change during each run. To make sure you have the most current data in the time recording system, this data must be downloaded frequently.

The time recording system supplies *Time Management* with the data recorded at the terminal (clock-in/clock-out entries, and so on). The process of transferring data to the HR System is called an “upload.” The upload can be performed several times daily. Although usually performed automatically in background jobs, uploads can also be carried out manually.

Data is then stored in the appropriate infotypes in *Time Management* and processed in the *Time Evaluation* (**RPTIME00**) report. In this way, the latest employee balances are transferred to the time recording system during the next download.

If attendance and absence reasons are entered at the time recording terminal (a doctor’s appointment or off-site work, for example), then the **RPTIME00** report first creates locked data records. The personnel administrator must then approve the attendances and absences.

Specifying Communications Parameters

Use

You use this function to specify the parameters for communication between external time recording systems and the SAP System.

You can specify whether you want to connect the time recording system using the *PDC Employee Times (Time and Labor) and Employee Expenditures* (HR PDC) or *Communication Channel 1* (CC1). Parallel operation is also permitted during the transition period.

Integration

The following functions are available:

- Processing Personnel Time Events [Page 357]
  - Different Payment [Page 367]
  - Cost Assignment [Page 369]
- Processing Employee Expenditures [Page 371]

The functions for processing personnel time events in HR PDC was enhanced for both business and functional reasons. You can now set up different payments or cost assignments.

The transaction subsystem connection [Page 610] (PT80) has changed for both interface versions.

If you have installed the previous version of CC1, see

Personnel Time Events (CC1) [Ext.]

Prerequisites

To specify whether you want to use HR PDC or the previous version of CC1, carry out the *Specify communication parameters* Customizing step in IMG for *Personnel Time Management*.

Subsystem Connection

Use

You can use this function to carry out various uploading and downloading processes from external time recording systems, as well as to manually transfer data from *SAP Logistics*. In addition, a log of the communications between the systems is also available.

Integration

This function is available for both Personnel Time Events [Page 351] and Plant Data Collection [Page 608].

Features

- The *Communications Log* contains an overview of all of the data transactions between the external systems and *SAP Time Management*.
- Reports necessary for downloading and uploading, as well as posting of time events to *Time Management* can be run via Time Events [Page 357].
- Reports necessary for downloading and uploading, as well as posting of employee expenditures to *Time Management* can be run via Employee Expenditures [Page 371].
- Reports required to retrieve either work time events or durations (time tickets) from *SAP Logistics* can be run from *Integration with Logistics*. The corrected actual times can also be transferred to *Logistics*.

Activities

You can jump directly to the Time Management pool [Page 553] in *Time Management* from this function.

If you have set the communications parameters [Page 355] to *Parallel operation*, the applicable reports used for the data transfer of Communication Channel (CC1) *(from Release 3.0A)* appear. You also have a communication log available here.

Processing Personnel Time Events

Use

This function controls the processing of personnel time events recorded in a time recording system.

The data required for checking data is downloaded to the time recording system. The time events recorded by the time recording system are then uploaded to *SAP Time Management*.

Integration

You can also use this function to activate *Different Payment* and *Cost Assignment*.

You can also set up the connection from external time recording systems using sequential files [Page 377]. The sample **Upload Time Events from Sequential Files** (RPTEUP10) report is provided for this purpose. The sample **Download Mini-Master Record to Sequential Files** (RPTEDO00) report provides the time recording system with HR mini-master records.

Prerequisites

To provide the system with data, the following functions must be set up, that is, the reports must be scheduled as background jobs or set to run manually.

- Downloading HR Mini-Master Records [Page 373]
- Downloading Employee Balances [Page 364]
- Downloading Time Event Type Groupings [Page 375]
- Downloading Attendance/Absence Reasons [Page 363]
- Downloading Objects [Page 368]
- Downloading Account Assignment Objects [Page 370]
- Uploading Time Events [Page 365]

To run the reports manually, either choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* or *Human Resources* → *Time Management* → *Incentive Wages* → *Environment* → *Subsystem Connection*.

Features

There are two methods available for processing personnel time events:

1. Employees must enter the appropriate time event type when entering time events
2. The time event type to be recorded is automatically determined from the employee's attendance status at the time it is entered.

Processing Personnel Time Events

An employee goes to work in the morning. Prior to the entry at the time recording terminal, the employee had the status “absent.” This entry is automatically interpreted as a “clock-in” entry.

The method for processing time events is individually determined by each provider of time recording systems.

The following time event types are available:

Time Event Type	Function
P01	Clock-in or clock-out entry
P02	Start or end of break
P03	Start or end of off-site work
P04	Start or end of off-site work at home
P05	Interim entry
P10	Clock-in
P11	Change
P15	Start of break
P20	Clock-out
P25	End of break
P30	Start of off-site work
P35	Start of off-site work at home
P40	End of off-site work
P45	End of off-site work at home
P50	Employee expenditures (external wage type)
P60	Information entry

The time event type **P05 Interim Entry** can be used to log each time an employee passes through an access control. However, these entries do not influence the employee’s attendance status.

Employees can use the time event type **P11 Change** to carry out the following entries:

- Change cost center
- Change position
- Change project
- Change internal order

The time event type **P11** does not affect employee attendance status.

The time type **P60 Information entry** is used for recording information to be evaluated in your own reports. However, these entries do not influence the employee’s attendance status. This information is not available in time evaluation, however, it can be displayed and changed in the *Time Events* infotype (2011).

Activities

To carry out the appropriate data uploads and downloads, choose *Time Management* → *Administration* → *Environment* → *Subsystem Connection*.

Downloading HR Mini-Master Records

Use

The external time recording system must peform checks against existing employee master data when personnel time events and employee expenditures are recorded.

Integration

Downloading a HR mini-master record is required to process both time events and employee expenditures.

Prerequisites

The Time Recording Info [Page 154] infotype (0050) must be created for each employee who will enter data at a time recording terminal.

Features

Use the **HR PDC: Download HR Mini-Master** (RPTCC1101) report to download HR mini-master records.

In the selection screen of this report, you specify whether the download is for personnel time events or employee expenditures.

The download occurs for certain period. This period is specified in report **RPTCC101**.

The HR mini-master record is downloaded regardless of an employee's employment status. The *Time Recording Info* infotype (0050) defaults to "delimited" in the *Leaving* action in the standard SAP System.

In this way, you can stipulate that a particular employee who left the company is still granted access authorization.

A minimum of one record is downloaded for each employee. If any relevant employee master data changes in this period, then a number of records are downloaded with corresponding limited valid periods. Validity is restricted, however, to the maximum selection period in the report **RPTCC101**.

Activities

Both time events and employee expenditures are provided with data during the download of time event type groupings.

Download Personnel Time Events

To download the HR mini-master, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *HR Mini-Master*.

Download Employee Expenditures

To download the HR mini-master, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *HR Mini-Master*.

Downloading HR mini-master records can also be scheduled periodically as a background job. Schedule the report **RPTCC101** in the Customizing section of either *Personnel Time Events* or *Employee Expenditures* of the IMG for *Personnel Time Management*.

Downloading Time Event Type Groupings

Use

You can group together time event types in time event type groupings. These groupings must be created for in order for various checks to be carried out at the time recording system. Employees can only the record time event types that are assigned to their group in the *Time Recording Info* infotype (0050).

Integration

Downloading time event type groupings is required for processing both time events and employee expenditures.

Prerequisites

In the Customizing section for *Personnel Time Management* in the Implementation Guide (IMG), the time event type groupings must be defined in the *Set time event type groupings* step.

Use the **HR PDC: Download Time Event Type Groupings** (RPTCC105) report to download time event type groupings.

Activities

You can provide data for personnel time events as well as employee expenditures using the download for time event type groupings.

Personnel Time Events

To start the download for time event type groupings, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Time Event Types*.

Download Employee Expenditures

To start the download for time event type groupings, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *Time Event Types*.

Downloading the time event type groupings can also be scheduled periodically as batch jobs. Schedule report RPTCC105 in the Customizing steps in either the *Personnel Time Events* or *Employee Expenditures* section of the Implementation Guide (IMG) for *Personnel Time Management*.

Downloading Attendance/Absence Reasons

Use

Employees can enter their attendance and absence reasons directly at the terminal if your time recording system configuration supports this function. In this way, employees can enter a doctor's appointment or flextime in lieu with their clock-in/clock-out entry, for example.

Prerequisites

You must first carry out the Customizing steps in the *Personnel Time Management* section of the IMG:

- *Set groupings for attendance/absence reasons at subsystem*
- *Maintain attendance/absence reasons*

Use the **HR PDC: Download Attendance/Absence Reasons** (RPTCC103) report to download attendance/absence reasons.

Features

An attendance/absence reason can be entered with both clock-in (P10) and clock-out (P20) time events.

The attendance or absence reasons entered by the employees are checked by the time recording system.

Based on the attendance or absence reason entered by the employee, the system generates a partial-day attendance or absence record for the current day, or a full-day record for the previous or subsequent workday.

Use the **HR PDC: Download Attendance/Absence Reasons** (RPTCC103) report to download attendance/absence reasons.

Activities

To download attendance/absence reasons, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Attendance/Absence*.

Downloading attendance and absence reasons can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Downloading Employee Balances

Use

Balances can be called up by employees at the time recording terminal. In this way, employees can view their flextime balances, leave entitlement, and quotas.

Prerequisites

The employee balances that should be displayed for each employee group must be defined in the Customizing section for *Personnel Time Management* in the IMG. To do so, carry out the *Set the data to be displayed at the terminal* Customizing step.

Use the **HR PDC: Download Employee Balances** (RPTCC02) report to download employee balances.

Activities

To download employee balances, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Balances*.

Downloading the employee balances can also be scheduled periodically as batch jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Uploading and Posting Personnel Time Events

Use

Uploading personnel time events enables all of the time events entered in the time recording system to be uploaded to *SAP Time Management*.

Personnel time events are then posted and can be displayed and maintained in the Time Events [Page 219] infotype (2011).

Features

The upload request triggers the time recording system all recorded personnel time events to be uploaded to the SAP System.

All of the time postings recorded up until this point are read and uploaded to the SAP System using CC1. The data is then stored in table CC1TEV.

Use the **HR PDC: Download Upload Request for Time Events** (RPTCC106) report to download the upload request for time events.

The report **HR PDC: Posting Personnel Time Events** (SAPCDT45) report reads the data from table CC1TEV and stores it as time events in infotype 2011 (table TEVEN).

Successfully processed time events are deleted from table CC1TEV.

Unprocessed Personnel Time Events

Generally, time events cannot be processed for one of the following reasons:

- Personnel number is locked: Employee data being processed in another transaction

  In this case, the processing of the personnel time event is put on hold. The time event is not deleted from table CC1TEV and is available for the next posting.

- Error occurred when checking the time event

  In this case, the personnel time event is placed in the Time Management pool [Page 553]. The *Subsystem* option is active. For each posting, a pool is created with all of the personnel time events that could not be processed.

  By choosing *Subsystem*, a list of all of the Time Management pools appears. You can re-post or delete the Time Management pools individually. The individual time events cannot be changed, however. Error messages are issued during the re-posting process. If the individual time events can now be posted because the errors were corrected, they are then deleted from the list of errors. In this way, the data in the Time Management pools is processed and removed step by step.

Activities

To start the upload request for personnel time events, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Upload Request*.

The upload request for personnel time events can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Uploading and Posting Personnel Time Events

To post personnel time events, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Update*.

Posting of personnel time events can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Different Payment

Use

Employees can enter a different payment at the time recording terminal from their usual pay stipulated in the *Basic Pay* infotype (0008).

Integration

This function is beneficial only when used in conjunction with the processing of personnel time events.

Prerequisites

A download of the object types must take place first.

In this way, payment-related information is assigned to the position for remuneration.

Features

Employees have two options for entering a different, or alternative, payment at the time recording terminal:

1. Employees enter an alternative position along with their clock-in entry (**P10 Clock-in** or **P01 Clock-in or clock-out**).
2. Employees enter alternative positions along with the time event type **P11 Change**.

In this way, information about the payscale group/level contained in that alternative position is taken into account for employee remuneration.

The time recording system checks if alternative position that the employee entered exists.

Downloading Objects

Use

The time recording system checks if the objects (such as positions) entered by the employees exist in the SAP System.

Prerequisites

Only objects (such as positions) already saved in the table T528B can be recorded.

Features

Use the **HR PDC: Download Objects** (RPTCC110) report to download objects.

Activities

To download objects, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Objects*.

Downloading objects can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Cost Assignment

Use

Employees can enter account assignments that are different from their master cost center at the time recording terminal.

The following account assignment objects can be posted:

- Cost centers (CO)
- Internal orders (CO)
- Projects (PS)

Integration

This function is beneficial only when used in conjunction with the processing of personnel time events.

Prerequisites

The account assignment objects have to be downloaded to the time recording system.

Features

Employees have two options for entering a different account assignment at the time recording terminal:

1. Employees enter the different account assignment along with their clock-in entry (**P10 Clock-in** or **P01 Clock-in or clock-out**); or
2. Employees enter the different account assignment along with the time event type **P11 Change**.

The account assignment information entered by employees is checked by the time recording system.

After the data has been processed and valuated in *SAP Time Management* (PT) and *SAP Payroll* (PY), it is then transferred to the applicable components in the SAP System.

Several account assignment objects can be recorded at the same time. The account assignment to be posted first is specified in *SAP Controlling* (CO). The other account assignment objects are only posted to create statistics.

Downloading Account Assignment Objects

Use

The account assignment information entered by the employees must be checked in the time recording system.

Features

Use the report RPTCC107 (*CC1: Download Cost Centers*) to download the cost centers.

Use the report RPTCC111 (*CC1: Download Internal Orders*) to download internal orders.

Use the report RPTCC108 (*CC1: Download Work Break Schedule Elements*) to download employee balances.

Activities

To start the download of account assignment objects, choose *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *WBS elements*.

Downloading the account assignment objects can also be scheduled periodically as a background job. To do so, carry out the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the Implementation Guide (IMG) for **Personnel Time Management**.

Processing Employee Expenditures

Use

This function controls the processing of employee expenditures recorded in a time recording system.

The data required for recording is downloaded to the recording system. The employee expenditures recorded by the recording system are then uploaded to *SAP Time Management*.

Prerequisites

To provide the system with data, the following functions must be set up, that is, the reports must be scheduled as background jobs or set to run manually.

- Download HR Mini-Master [Page 373]
- Download Permitted Employee Expenditures [Page 372]
- Download Time Event Type Groupings [Page 375]
- Upload Employee Expenditures [Page 376]

To run the reports manually, either choose *Human Resources* → *Time Management* → *Administration* → *Environment* → Subsystem Connection or *Human Resources* → *Time Management* → *Incentive Wages* → *Environment* → *Subsystem Connection*.

Features

Employees can enter company cafeteria data or service station data recording terminals.

The recording system checks the data entered by employees. Employee expenditures are entered by employees in the time event type *P50 Employee Expenditures*.

Activities

To carry out the appropriate data uploads and downloads, choose *Time Management* → *Administration* → *Environment* → *Subsystem Connection*.

Downloading Employee Expenditures

Use

The appropriate employee expenditures are downloaded to the recording system. The recording system then checks the data entered by employees.

Prerequisites

You specify what employee expenditures can be recorded by the various employee groups in the *Employee Expenditures* section in the IMG for *Personnel Time Management*. To do so, carry out the following Customizing steps:

- *Set groupings for employee expenditures at subsystem*
- *Maintain wage types*

Features

Use the **HR PDC: Download Employee Expenditures** (RPTCC104) report to download employee expenditures.

Activities

To download employee expenditures, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *Wage Types*.

Downloading employee expenditures can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Downloading HR Mini-Master Records

Use

The external time recording system must peform checks against existing employee master data when personnel time events and employee expenditures are recorded.

Integration

Downloading a HR mini-master record is required to process both time events and employee expenditures.

Prerequisites

The Time Recording Info [Page 154] infotype (0050) must be created for each employee who will enter data at a time recording terminal.

Features

Use the **HR PDC: Download HR Mini-Master** (RPTCC1101) report to download HR mini-master records.

In the selection screen of this report, you specify whether the download is for personnel time events or employee expenditures.

The download occurs for certain period. This period is specified in report **RPTCC101**.

The HR mini-master record is downloaded regardless of an employee's employment status. The *Time Recording Info* infotype (0050) defaults to "delimited" in the *Leaving* action in the standard SAP System.

In this way, you can stipulate that a particular employee who left the company is still granted access authorization.

A minimum of one record is downloaded for each employee. If any relevant employee master data changes in this period, then a number of records are downloaded with corresponding limited valid periods. Validity is restricted, however, to the maximum selection period in the report **RPTCC101**.

Activities

Both time events and employee expenditures are provided with data during the download of time event type groupings.

Download Personnel Time Events

To download the HR mini-master, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *HR Mini-Master*.

Download Employee Expenditures

To download the HR mini-master, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *HR Mini-Master*.

Downloading HR Mini-Master Records

Downloading HR mini-master records can also be scheduled periodically as a background job. Schedule the report **RPTCC101** in the Customizing section of either *Personnel Time Events* or *Employee Expenditures* of the IMG for *Personnel Time Management*.

Downloading Time Event Type Groupings

Use

You can group together time event types in time event type groupings. These groupings must be created for in order for various checks to be carried out at the time recording system. Employees can only the record time event types that are assigned to their group in the *Time Recording Info* infotype (0050).

Integration

Downloading time event type groupings is required for processing both time events and employee expenditures.

Prerequisites

In the Customizing section for *Personnel Time Management* in the Implementation Guide (IMG), the time event type groupings must be defined in the *Set time event type groupings* step.

Use the **HR PDC: Download Time Event Type Groupings** (RPTCC105) report to download time event type groupings.

Activities

You can provide data for personnel time events as well as employee expenditures using the download for time event type groupings.

Personnel Time Events

To start the download for time event type groupings, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Time Events* → *Time Event Types*.

Download Employee Expenditures

To start the download for time event type groupings, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *Time Event Types*.

Downloading the time event type groupings can also be scheduled periodically as batch jobs. Schedule report RPTCC105 in the Customizing steps in either the *Personnel Time Events* or *Employee Expenditures* section of the Implementation Guide (IMG) for *Personnel Time Management*.

Uploading and Posting Employee Expenditures

Use

Uploading employee expenditures enables all of the employee expenditures entered in recording systems to be uploaded to *SAP Time Management*.

The employee expenditures are then posted and can be displayed, maintained, and processed in the Employee Remuneration Info [Page 216] (2010) or Additional Payment [Ext.] (0015) infotypes.

Features

The upload request triggers the recording system to upload all recorded employee expenditures to the SAP System.

All of the employee expenditures are recorded up until this point are read and uploaded to the SAP System using CC1. The data is then stored in table TEXLGA.

Use the **HR PDC: Download Upload Request for Employee Expenditures** (RPTCC109) report to download the upload request for employee expenditures.

The **Create Batch Input Session for Employee Expenditures** (RPIEW00) report runs a batch input seesion to create primary wage types from the employee expenditures. This step is necessary so that data can also be processed by *SAP Payroll*.

The **Run Batch Input Sessions** (RPIEWT04) report then creates data records for the infotypes 2010 or 0015.

The table TEXLGA must be reorganized regularly. To reorganize the table, run the **Reorganize Table TEXLGA - Employee Expenditures** (RPIEWT02) report.

Activities

To start the upload request for employee expenditures, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *Upload Request*.

The upload request for employee expenditures can also be scheduled periodically as a background job. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

To download employee expenditures, choose *Human Resources* → *Time Management* → *Administration* → *Environment* → *Subsystem Connection* → *Employee Expenditures* → *Processing*. Then carry out the *Create Session* and *Post* steps in order.

Posting of employee expenditures can also be scheduled periodically as background jobs. To do so, carry out the *Set Up Background Jobs* → *Download* Customizing step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Connecting Time Recording Systems Using Sequential Files

Use

Communication between the *SAP Human Resources* and an external application can also take place úsing sequential files. If you work with sequential files, however, you do not have an officially certified interface to the time recording systems for use.

In this case, neither SAP nor the manufacturers of the time recording system are responsible for data security.

Features

Downloading HR Mini-Master Records Using Sequential Files

Use the **Download Mini-Masters to Sequential Files** (RPTEDO00) report to generate a sequential file. The report reads the master data of selected employees and writes the mini-master records to a sequential file. The structure of the mini-master records is defined by the dictionary structure DWN01.

If you want the **RPTEDO00** report to issue a log, you need to have authorization to display the *Organizational Assignment* infotype (0001).

Uploading Time Events Using Sequential Files

Use the **Upload Time Events from Sequential Files** (RPTEUP10) report to carry out the upload. The report reads the records in a sequential file and interprets them as time events. The format of the records is defined in an internal structure in the report containing the following fields:

Uploading Time Events Using Sequential Files

Field Name	Type	Length	Description	Comments
PERNR	CHAR	8	Personnel number	Numbers only
ZAUSW	CHAR	8	Time recording ID number	Numbers only
LDATE	CHAR	8	Date	YYMMDD (four digits for year, two digits for month and day without separator)
LTIME	CHAR	6	Time	Hours, minutes, seconds - two digits each without separator
ERDAT	CHAR	8	Recording date	YYMMDD (four digits for year, two digits for month and day without separator)

ERTIM	CHAR	6	Recording time	Hours, minutes, seconds - two digits each without separator
SATZA	CHAR	3	Time event type	
TERID	CHAR	4	Terminal ID	
ABWGR	CHAR	4	Attendance/absence reason	
OTYPE	CHAR	2	Object type	
PLANS	CHAR	8	Object	Numbers only
USRUP	CHAR	20	User fields	

The time events are written to table CC1TEV, just as when they are uploaded using the standardized interface. The report parameter *Upload* must be activated.

If the report parameter *Update* is active, a function module is called up to process the time events

Time events with errors are processed and stored in the Time Management Pool in the same way as when they are uploaded via the Communication Channel 1 (CC1)

Plant Data Collection (PDC)

Purpose

This component controls the transfer of confirmations to *SAP Time Management* from the following SAP application components:

- *SAP Production Planning* (PP) and *Process Control* (PP/PI)
- *SAP Plant Maintenance* and *SAP Customer Service* (PM/CS)
- *SAP Project System* (PS)

Implementation Considerations

Confirmations recorded in *SAP Logistics* describe the progress of a job and are used for planning and controlling in *Logistics*. They also document the performance of the employee who carried out the work. This data affects the employee's remuneration.

Plant data collection transfers the relevant employee data from the above *Logistics* application components to *Time Management*. This reduces the work involved in data entry.

An additional advantage is that target values and specifications are also transferred from *Logistics* along with the actual data. In this way, labor utilization rates can be determined when time tickets are created in *Incentive Wages*. The labor utilization rate affects the rate of remuneration, especially in piecework and premium wages.

Integration

When the confirmations are transferred from *Logistics* to *Time Management*, the data is written either to table EVHR or table LSHR. A plant data sequence number (PDSNR) is assigned to each entry in the tables.

Time wage types are formed during time evaluation in the *Time Management* component to be included in the gross calculation in *Payroll*. They are referenced in the gross part of payroll.

Time ticket data from *Incentive Wages* is also referenced in the relevant wage types in the gross part of payroll.

The data determined in the *Time Management* component can be accessed by the *Payroll* component. The *Payroll* data can be transferred to *SAP Controlling* for cost accounting.

Features

Logistics confirmations must be recorded with a personnel number or ID number if they are to be transferred to *Time Management*.

There are two methods of transferring data from *Logistics* to *Time Management*:

1. The confirmations recorded in *Logistics* are ***time event-related***. The transferred data is stored in table EVHR in *Time Management*. The confirmations are then posted as work time events to the *Time Events* infotype (2011). Time tickets are generated from the work time events and can be transferred to *Incentive Wages* if required.

This procedure is only used if posting confirmations from *Production Planning and Control* (PP).

2. The ***processing duration*** of production orders, maintenance orders, networks, and so on, is confirmed in *Logistics*. In other words, the confirmation specifies the time worked as a number of hours. The transferred data is stored in table LSHR in *Time Management*. The data can either be posted to *Incentive Wages* as time tickets, or to the *Attendances* infotype (2002) as attendances.

You can only use this procedure if *Time Management* is integrated with all of the above *Logistics* components.

In most cases, confirmations are recorded at front-end time recording systems for plant data collection and uploaded to the relevant *Logistics* components in the SAP System. Certified interfaces provide the connection to the subsystem.

Data can also be recorded online in *Logistics*.

Subsystem Connection

Use

You can use this function to carry out various uploading and downloading processes from external time recording systems, as well as to manually transfer data from *SAP Logistics*. In addition, a log of the communications between the systems is also available.

Integration

This function is available for both Personnel Time Events [Page 351] and Plant Data Collection [Page 608].

Features

- The *Communications Log* contains an overview of all of the data transactions between the external systems and *SAP Time Management*.
- Reports necessary for downloading and uploading, as well as posting of time events to *Time Management* can be run via Time Events [Page 357].
- Reports necessary for downloading and uploading, as well as posting of employee expenditures to *Time Management* can be run via Employee Expenditures [Page 371].
- Reports required to retrieve either work time events or durations (time tickets) from *SAP Logistics* can be run from *Integration with Logistics*. The corrected actual times can also be transferred to *Logistics*.

Activities

You can jump directly to the Time Management pool [Page 553] in *Time Management* from this function.

If you have set the communications parameters [Page 355] to *Parallel operation*, the applicable reports used for the data transfer of Communication Channel (CC1) *(from Release 3.0A)* appear. You also have a communication log available here.

Processing Work Time Events

Purpose

Time event-related confirmations recorded in the *Production Planning and Control/Process Industries* (PP/PI) components are posted as work time events to the *Time Events* infotype (2011) in *Time Management*. Time tickets are generated from the work time events and can be transferred to *Incentive Wages* if required.

Actual times are determined during pair formation in *Time Management*. If different work schedule rules are assigned to the employees, this is taken into account when calculating the actual times for past periods by performing a recalculation.

Pair formation also occurs in *Logistics* to calculate employee working time. However, work schedules in *Time Management* are not taken into account here. As a result, the differences resulting from pair formation in *Time Management* and *Logistics* are returned to the appropriate *Logistics* system.

Prerequisites

The confirmation data has been transferred from *Production Planning and Control* to *Time Management.* On the basis of the record type, the system has decided to process the work time events using table EVHR.

Confirmations that were not transferred successfully can be processed using the *Time Management* pool. An example of an error is a missing record type, making it impossible to assign the confirmation to EVHR or LSHR.

The *activity types* must be assigned the appropriate incentive wages indicators in *Production Planning and Control*. These settings are made for each existing work center. For more information, see Calculations [Ext.].

Process Flow

1. The **Post Work Time Events from CC2** (SAPCDT46) starts the processing.

   Using existing person time events and work time events, time pairs are formed and time tickets are generated. The duration between two work time events is calculated from the employee's daily work schedule and breaks, and written to the last work time event.

2. Once all validations and processing steps have been successfully completed, the time events and related information are saved to the database:

- The time pairs and time tickets are saved separately for each employee and period to tables PT (pair table), WST (time tickets), and AT (link table) in cluster B2, database PCL2.

  You can check the tables using the **Display Cluster B2 of Database PCL2** (RPCLSTB2) report.

- The time events are saved in table TEVEN. The *personnel number*, *date*, *time*, *time event type*, and *previous day indicator* fields are the main fields in table TEVEN. For work time events, data is also saved in table TEVEN_MORE. This table contains the *Logistics order*, *operation*, *quantity*, *target time, standard data,* and *work center* fields. The link between the tables is established by the PDSNR number assigned at the start.

- The processed time events are deleted from table EVHR.

3. If there is a time event that could not be processed as the personnel number was already locked by another transaction, it remains in table EVHR and is processed the next time.
4. Work time events with errors are stored in a pool and deleted from table EVHR. You can display, post or delete the pools by choosing *Time Management* → *Pool* → *Subsystem*.
5. Any differences resulting from comparing pair formation in both *Time Management* and *Logistics* are transferred to *Logistics*. In this way, working times based on work schedules in *Time Management* are available in *Logistics*.

Result

On the one hand, generated time tickets are linked with work time events. They are also linked with the time pair as well.

The generated time tickets can be passed on to *Incentive Wages*. In this case, planning data is read from *Logistics* and entered in the time ticket, enabling a performance-based valuation in *Payroll*.

If the *Logistics* confirmations contain information on the cost centers to be debited, this data is included in *Time Evaluation* and in *Incentive Wages*, and is also passed on to *Payroll*.

Pair Formation and Time Ticket Generation

Use

The pair formation function determines actual times and generates time tickets.

Integration

Pair formation is also carried out for person time events.

For more information on pair formation, see Pair Formation [Page 406]

Prerequisites

Pair formation for work time events is carried out when the entries in table EVHR are processed. Processing is started using the report *Post Work Time Events from CC2* (SAPCDT46). To start the process automatically, carry out the *Schedule Posting Of Work Time Events* step in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

Features

The work time events are read from table EVHR.

The work time events open and close pairs. This information is updated in the pair table PT.

Time tickets are also opened, updated, and closed. Time tickets are saved to the time ticket table WST. The most important information in a time ticket is the time worked between two (or more) time events. The time ticket also contains a reference back to the processed order in the form of the PDSNR number.

The assignment of time tickets to pairs is specified in the link table AT.

You can check the tables using the report *Display Cluster B2 of DB PCL2* (RPCLSTB2).

Example: Pair Formation and Generating Time Tickets

The following is an example to illustrate how information derived from time events is stored in tables.

In the example, work time events from Communication Channel 2 (CC2) are used, that is, the data comprises completion confirmations from PP.

Times are processed including seconds. In the following examples, the times are specified without seconds for the sake of clarity. The date has also been omitted.

Pair formation and time ticket generation using an example

A notification of set up begin for 06:00 is to be processed for an employee. There are no further time events for the day in question.

The following entries are made in the pair table PT:

From - To	Pair type	Status from pair formation
____ - 06:00	1 (at work)	2 (no clock-in)
06:00 - ____	1 (at work)	E (no end notification)

The following entry is created in the time ticket table WST:

From - To	Labor time	Setup time
06:00 - ____	0.00 hrs	0.00 hrs

The following entry is in the link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up

The system now receives a clock-in posting for 05:55. This means that the entries in the pair table PT are as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - ____	1 (at work)	E (no end notification)

No changes are made to tables WST and AT.

The system now processes a setup end notification for 07:00 and a work begin notification for 07:06

The entries in the pair table PT are then as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK

Example: Pair Formation and Generating Time Tickets

07:06 - ____	1 (at work)	E (no end notification)

The following is added to the existing entry in time ticket table WST:

From - To	Labor time	Setup time
06:00 - 07:06	0.00 hrs	1.00 hrs

The entry in the link table AT is as follows:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor

The system now processes a work end notification for 10:00.

The entries for the day in the pair table PT are then as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK
07:06 - 10:00	1 (at work)	BLANK
10:00 - ____	1 (at work)	3 (no clock-out posting)

The following is added to the existing entry in the time ticket table WST:

From - To	Labor time	Setup time
06:00 - 10:00	2.40 hrs	1.00 hrs

No changes are made to the entries in the link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor

Finally, the system processes a work begin notification for 10:30 and a work end notification for 11:00.

The entries for the day in pair table PT are as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK
07:06 - 10:00	1 (at work)	BLANK
10:00 - 11:00	1 (at work)	BLANK
11:00 - ____	1 (at work)	3 (no clock-out posting)

A new entry is created in the time ticket table:

From - To	Labor time	Setup time
06:00 - 10:00	2.40 hrs	1.00 hrs
10:30 - 11:00	0.50 hrs	0.00 hrs

An entry is also added to link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor
6	2	Labor

The employee's daily work schedule is used as the basis for calculating actual times. In the above example, the employee has a break of 30 minutes during the period from 07:06 to 10:00.

Processing Time Tickets in Time Evaluation

Use

Time wage types are generated in time evaluation, taking account of the account assignment splits in the generated time tickets. The information on cost accounting is also passed on when the time tickets are transferred to Incentive Wages. This ensures that actual costs from *SAP Payroll* are debited in *SAP Controlling* (CO) to cost centers or orders specified in *SAP Logistics*.

Integration

The account assignment splits are passed on to *SAP Payroll* together with the time wage types.

Prerequisites

The time tickets have already been generated in pair formation and saved to table WST in cluster B2.

Features

The pair table PT is imported to the work table TIP in time evaluation. An account assignment split (C1 split) is assigned to each time pair that is linked with a time ticket in table WST. The account assignment is transferred to table C1. The account assignment split points to this entry. This means that all time wage types generated from this time pair also inherit the account assignment split.

Posting Time Tickets to Incentive Wages

Use

Time tickets must be posted to incentive wages so that the relevant employees can be remunerated on the basis of their performance. This affects particularly those employees who work in piecework or premium wages.

Integration

The generated time tickets can then be processed in the time ticket maintenance transaction in incentive wages.

The results of incentive wages are read in *SAP Payroll* from the relevant wage types, and then transferred to *SAP Controlling* (CO).

Prerequisites

The time tickets have already been generated in pair formation and saved to table WST in cluster B2.

The posting of time tickets to incentive wages is set up in the *Maintain Settings for Pair Formation* step in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

In the above step, you can decide whether the posting of time tickets should:

- Be deactivated
- Take place when time tickets are generated
- Not take place until time evaluation is run

The relevant field must be activated in the *Post PDC Time Tickets* step.

Features

Before a day is processed, the status of table WST is frozen so that it can be compared to the status after processing. The comparison shows that new time tickets have been generated, or that time tickets that had already been posted have been changed or deleted. On the basis of this comparison, time tickets to be added or deleted are placed in the interface table IFT2 in cluster B1. New time tickets are entered as copies in the table. A deletion entry and a create entry are generated for time tickets that were changed.

When the time tickets are actually posted, the time ticket generated earlier is deleted on the basis of the deletion entries in table IFT2. New time tickets are supplemented by the target times from Logistics. The target times are determined from the confirmed quantity. The labor utilization rate is calculated from the actual and target times using the calculation rules specified in incentive wages. The time ticket is indicated as “generated,” and the entries in table IFT2 are deleted.

If a time ticket that is to be deleted or changed has been changed manually, an error message is generated in table ERT in cluster B1. The entries remain in table IFT2. The time data administrator can correct this inconsistency by using the *error handling* function from the *Time Management pool.*

Posting Time Tickets to Incentive Wages

An error is also generated if validation in incentive wages is not successful. In this case, the work time events on which the validation was based must be corrected. Corrections can also be carried out using the *error handling* function from the *Time Management pool*.

Example: Performing an Update in Incentive Wages

The following example illustrates how a time ticket is updated in incentive wages.

Updating a Newly Generated Time Ticket in Incentive Wages

Table WST contains a time ticket which was generated during processing of the work time events from table EVHR.

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	Y (earmark for update)

The value *Upd* = Y means that the time ticket is to be updated in incentive wages but that this has not yet occurred.

Since this time ticket did not exist before processing, the system creates an entry in table IFT2 and marks the time ticket as transferred in table WST:

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	X (transferred)

Table IFT2

From - To	Labor time	Quantity	Operation
06:00 - 07:00	1.00 hr	10 pieces	Insert

After the update has been performed successfully, the entry in table IFT2 is deleted and the entry in WST remains as above.

Updating Changes to a Time Ticket in Incentive Wages

The next example illustrates how changes to a time ticket are updated in Incentive Wages.

The example is based on the following scenario:

Before processing is started, table WST contains a time ticket which has been passed on to table IFT2. Since table IFT2 no longer contains any entries, there is an incentive wage time ticket.

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	X (transferred)

The time ticket changes due to the processing of a new work time event.

For example, a partial completion confirmation is received at 06:30 for 5 pieces, or the number of pieces from the work end notification at 07:00 was corrected manually to 15 pieces.

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	15 pieces	Y (earmark for update)

Example: Performing an Update in Incentive Wages

Due to the changes, the system generates two entries in table IFT2 and marks the time ticket in table WST as transferred:

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	15 pc.	X (transferred)

Table IFT

From - To	Labor time	Quantity	Operation
06:00 - 07:00	1.00 hr	10 pieces	Delete
06:00 - 07:00	1.00 hr	15 pieces	Insert

After the original incentive wage time ticket was successfully deleted and the new one successfully inserted, the entries in table IFT2 are deleted.

Processing Durations

Purpose

Confirmations recorded in *Logistics* as durations are posted to *Time Management* as attendances in the *Attendances* infotype (2002), or to *Incentive Wages* as time tickets.

The actual times are determined in *Logistics* and transferred to *Time Management* as durations.

Prerequisites

The confirmation data has been transferred from *Logistics* to *Time Management*. Based on the record type, the system processes the durations using table LSHR. The confirmations have been recorded in *Logistics* with a personnel number.

Confirmations transferred unsuccessfully can be processed using the *Time Management* pool. An example of an error is a missing record type, making it impossible to assign the confirmation to EVHR or LSHR.

The *activity types* must be assigned the appropriate incentive wages indicators in *Production Planning and Control*. These settings are made for each existing work center. For more information, see Calculations [Ext.].

Process Flow

1. Data from LSHR is read by the **Integration with Logistics: Read Interface File and Generate Session** (RPWI1100) report and placed in a background job. A posting destination is determined in the report, that is, whether the confirmations should be posted as time tickets to *Incentive Wages* or as attendances to the *Attendances* infotype (2002).
2. Report RPWI2000 processes the session posts the confirmations.
3. The interface table LSHR must be reorganized periodically using the **Integration with Logistics: Reorganize Interface File** (RPWI4100) report.

Result

Time tickets are saved to cluster L1 for individual incentive wages and cluster G1 for group incentive wages. Attendances are updated in the *Attendances* infotype (2002).

Posting Confirmations as Attendances

Use

Using batch input processing, confirmations can be posted to *SAP Time Management* as *attendances* (infotype 2002). Confirmations from *Plant Maintenance and Service Management* (PM) and *Project System* (PS) are usually posted as *attendances* as they do not generally involve performance-based remuneration such as in piecework, for example.

Integration

The posted confirmations can be maintained in the *Attendances* infotype (2002).

Prerequisites

The transferred confirmations must be in the interface table LSHR.

Features

Using the report *Integration with Logistics: Read Interface File and Generate Session* (RPWI1100), the confirmations are read from file LSHR and placed in a batch input session. You specify *Attendances* as the posting destination on the report selection screen.

The batch input session is processed using the report *Batch Input: Process Sessions in Batch* (RPWI2000), and the confirmations are posted to *SAP Time Management* as *Attendances*.

The process of retrieving and posting the confirmations can be started automatically if you want to retrieve the confirmations once daily, overnight, for example. You simply schedule a job that starts the reports *Integration with Logistics: Read Interface File and Generate Session* (RPWI1100) and *Batch Input: Process Sessions in Batch* (RPWI2000) in two steps.

Likewise, you can reorganize the interface table automatically by scheduling the report *Integration with Logistics: Reorganize Interface File* (RPWI4100) as above.

Activities

To start the process automatically, please carry out the steps *Schedule Retrieval of Confirmations* and *Schedule Reorganization of Interface Table* in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

Using Background Jobs to Post Confirmations as Time Tickets

Use

You can post confirmations to *Incentive Wages* using background processing. Confirmations from *Production Planning and Control* are posted as time tickets if remuneration is performance-based (as in piecework wages).

Integration

The transferred confirmations can then be processed in time ticket maintenance in *Incentive Wages*.

Prerequisites

Work centers must have the applicable incentive wages indicators in the *Logistics* master data in the calculation area.

The transferred confirmations must be in the interface table LSHR.

Features

The **Integration with Logistics: Read Interface File and Generate Session** (PRWI1100) report reads the confirmations from the LSHR file and places them in a batch input session. You specify *Time tickets* as the posting destination on the report selection screen.

The batch input session created is run by the **Batch Input Session: Run Sessions in Batch** (RPWI2000) report and the confirmations are posted to the appropriate destination as time tickets in *Incentive Wages*.

The process of retrieving and posting the confirmations can be started automatically if you want to retrieve the confirmations once daily, overnight, for example. You simply schedule a job that starts the **RPWI1100** and **RPWI2000** reports in two steps.

You can also reorganize the interface table automatically by scheduling the **Integration with Logistics: Reorganize Interface File** (RPWI4100) report.

Activities

To start the process automatically, carry out the Customizing steps *Schedule retrieval of confirmations* and *Schedule reorganization of interface table* in the Implementation Guide (IMG) for Time Management.

Posting Confirmations Online as Time Tickets

Use

You can access specific confirmations online and post them to *Incentive Wages* as time tickets. This might be necessary if an employee only wants certain time tickets to be passed on to payroll, for example.

Integration

Confirmations that have been retrieved online and posted as time tickets can be processed using the time ticket maintenance transaction in Incentive Wages.

Prerequisites

Work centers must have the applicable incentive wages indicators in the *Logistics* master data in the calculation area.

The transferred confirmations must be in the interface table LSHR.

Activities

The *Retrieve confirmations* switch must be activated in the step *Maintain incentive wage parameters.*

Retrieving confirmations and creating time tickets

Procedure

1. Choose *Human Resources ??Time Management ??Incentive Wages ??Time Tickets ??Maintain*. The *Maintain Incentive Wages Data* screen appears.
2. Choose *Action ??Retrieve confirmations*.
3. Enter the selection criteria (for example, order number) for the confirmations you want to retrieve.
4. Choose *Confirm*. A list of the selected confirmations is displayed.
5. Select the confirmations you want to retrieve from the list, and choose *Retrieve*.

   Time tickets are now generated from the retrieved confirmations.

   If you want to change a time ticket during the retrieval process, select the relevant time ticket on the selection screen and select *Choose*.
6. Choose *Save*.

Result

Confirmations are retrieved from *Production Planning and Control* and stored in *Time Management* as time tickets. The retrieved time tickets are assigned the origin indicator "P."

Time Evaluation

Purpose

The *Time Evaluation* component valuates employees' working times and absence times. Time evaluation calculates planned times and overtime, administrates time accounts and forms wage types, updates time quotas, and is used to check working time specifications.

Implementation Considerations

You should implement the Time Evaluation component if you use time recording systems to record employees' attendance times (actual times).

If you use other methods of time recording, the component is optional. Time data entered online can also be evaluated on a daily basis in the *Integration with Time Management* component in Payroll. The only functions available there are for determining wage types.

See also: Integration with Time Management [Ext.]

Integration

Possible Integration with Other Time Management Components

Desired Function	Required Component
Transferring data from time recording systems	Personnel Time Events

Possible Integration with Other Human Resources Components

Desired Function	Required Component
Determining wage types for calculation of the gross wage	Payroll

Possible Integration with Other SAP Components

Desired Function	Required Component
Tracking work performed in Purchasing	Materials Management

Features

Choice of Several Standard Processing Methods

The standard system provides several time evaluation processes, which have different requirements on the time data to be evaluated and evaluate data using different methods:

- Time evaluation for processing time data that is imported to the SAP System from time recording systems
- Time evaluation for time management where only deviations to the work schedule are recorded, and not all employees' attendance times
- Evaluation of external employees' time data for External Services Management

- Time evaluation for processing time data where the duration of work performed, and not the start and end times, is required for checking working time regulations, overtime determination, and so on

Time Evaluation Results

- Time evaluation determines overtime and bonus wage types and automatically takes account of public holidays, weekdays, or conditions on the duration or time of work performed.
- Time evaluation enables you to administrate time accounts, which can be individually defined. If necessary, it can check to ensure that values do not exceed or fall short of value limits.
- Overtime, productive hours, absence times, and so on
- Flextime balances
- Annual working time accounts
- Time evaluation issues messages when specific situations occur, for example, or if working time regulations are not adhered to. You can define your own messages for any situation. You can also order time evaluation to abort if particular errors occur.
- You can display a statement of the balances determined each day for employees' information.

Special Technical Features of Time Evaluation

- You can modify time evaluation processing rules to suit the specific requirements of your enterprise.
- The process flow and results of a time evaluation run are logged and can be displays in different levels of detail.
- The results are saved to the database for specific days. This enables the results to be monitored for exact days, and it guarantees a recalculation without gaps.
- A recalculation of periods that have already been evaluated is triggered automatically if changes are made to an employee's time data or important master data after the first time evaluation run.
- You can simulate time evaluation to estimate the amount of overtime or to calculate the expected absence entitlements, for example. The results determined in a simulation are not saved to the database.

Time Evaluation Without Clock Times

Purpose

The *Time Evaluation Without Clock Times* component is used to evaluate employees' personnel times. It processes time data that has been imported to the SAP R/3 System from time recording subsystems and data that has been recorded online.

You can use this component to evaluate the time data of employees who enter only exceptions to the work schedule and of employees who record all times relevant to their working time (actual times). Processing in this component assumes that times are expressed as the duration of work, and not the start and end times of work times and employee absences. All recorded times are recognized as working time. Working time provisions to be checked, such as calculation of overtime, relate to employees' daily or weekly work performed.

Implementation Considerations

Several processing methods (personnel calculation schemas) for time evaluation are provided in the standard system. The type of processing that you choose depends on the particular working time provisions of your country, industry, and enterprise. For this reason, the decision can only be met once you have studied the individual functions in detail. Before you choose this component, refer to the documentation on the personnel calculation schemas and the Implementation Guide:

Criteria for Selecting a Schema [Page 498]

Schema TM00: Time Evaluation Using Time Events [Page 501]

Schema TM04: Time Evaluation Without Clock Times [Page 503]

Schema TM01: Time Evaluation for Deviations from the Work Schedule [Page 502]

Schema TC00: Wage Type Generation (International) [Page 504]

Implementation Guide: *Personnel Time Management* → *Time Evaluation* → *Time Evaluation with Clock Times* or *Time Evaluation Without Clock Times*

Time Evaluation With Clock Times

Purpose

The *Time Evaluation With Clock Times* component is used to evaluate employees' personnel times. It processes time data that has been imported to the SAP R/3 System from time recording subsystems and data that has been recorded online.

You use this component to evaluate employees' time data where all times that are relevant to the working time (actual times) are recorded. Processing in this component assumes that times are expressed as start and end times of work performed or of absences. The main function of the component is to classify the actual times by comparing them with the planned working time data stipulated in the daily work schedule (planned working time start and end, core times, break times). Working times that exceed the specified working time frame are recognized, and are generated as overtime if attendance approvals exist for the relevant employees.

Implementation Considerations

Several processing methods (personnel calculation schemas) for time evaluation are provided in the standard system. The type of processing that you choose depends on the particular working time provisions of your country, industry, and enterprise. For this reason, the decision can only be met once you have studied the individual functions in detail. Before you choose this component, refer to the documentation on the personnel calculation schemas and the Implementation Guide:

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Implementation Guide: *Personnel Time Management* → *Time Evaluation* → *Time Evaluation with Clock Times* or *Time Evaluation Without Clock Times*

Evaluating Time Data

Purpose

The time evaluation process from the recording of time data to the use of the results determined.

Process Flow

1. When they are hired, employees are assigned a work schedule according to which all members of the group work.
2. Employees record their attendance times using time recording subsystems, the Cross-Application Time Sheet, or other Employee Self-Service applications, for example. Alternatively, time data can be recorded in a centralized data entry office by time data administrators.
3. Time data administrators modify employees' personal work schedule to conform to short-term changes, and enter absences such as leave or absence online.
4. If time recording subsystems are used, the time events are uploaded to the SAP System.
5. The *Time Evaluation* report (RPTIME00) is run for the employees to evaluate their time data. The *time evaluation report* is generally run overnight as a background job.

   Time evaluation compares employees' time data to company and standard regulations and valuates it. It determines approved overtime, accrues absence entitlements, and forms (bonus) wage types. It issues messages to document special situations.
6. If time recording subsystems are used, the SAP System downloads the balances to the subsystem in a background job.
7. The following morning, the time data administrators process the messages issued. If messages are a frequent occurrence, the time data administrators access the *Time Management pool.* If messages are uncommon, the time data administrators check their *SAPOffice inbox* on a daily basis. If special situations occurred during time evaluation, they find a mail in their inbox. They branch directly from the inbox to the *Time Management pool* to process the messages.
8. The time data administrators correct errors such as missing absence records, issue subsequent overtime approvals, or enter missing time postings.
9. The employees receive a statement of their time accounts at the end of the payroll period. Alternatively, employees can display the current time statement in the Internet/intranet.
10. Payroll uses the time wage types to calculate the gross wage.

General Prerequisites for Working with Time Evaluation

The following conditions must be fulfilled before you can work with the *Time Evaluation* component and evaluate your employees' time data:

Customizing Settings for Work Schedules and Time Recording

The employee's planned specifications form the basis for working with time evaluation. They must stipulate exactly which days of the year an employee must work, and for how many hours or at which clock times. These specifications are made within the framework of work schedules and time recording. Before you can start working with time evaluation, you must have already

- Created a public holiday calendar
- Created and generated work schedules for your employees
- Defined attendance and absence types, and so on

Employee Master Data

The following master data infotypes must be maintained before you can work with time evaluation:

- *Organizational Assignment* (0001)
- *Personal Data* (0002)
- *Planned Working Time* (0007)
  - ***Planned Working Time* infotype (0007): The *Time Management status***

    The *Time Management status* must be set in the *Planned Working Time* infotype (0007) before you can evaluate an employee's time data. This indicator determines whether employees participate in time evaluation, and if so, what method of evaluation applies.

    The standard values for the *Time Management status* are as follows:

0	No time evaluation
1	Time evaluation (actual)
2	Time evaluation PDC
7	Time evaluation without integration with Payroll
8	External services
9	Time evaluation (planned times)

    An employee with the Time Management status BLANK or 0 is not considered for time evaluation.

  - **The *Time Recording Information* infotype (0050)**

General Prerequisites for Working with Time Evaluation

The *Time Recording Information* infotype (0050) only has to be maintained if the employee's actual times are recorded at time recording systems. In this infotype you record

- Master data that is relevant for the connection to the time recording systems
- Customer-specific time variables

The following data is stored for each employee:

- The time recording ID number
- Information for the subsystem (interface data)
- Individual master data

For more information, see

- Meaning and Origin of Master Data Fields [Ext.]
- The relevant infotype documentation
- The *Personnel Time Events* section in the Implementation Guide.

Customizing Settings for Time Evaluation

A further prerequisite is that you have checked the Customizing settings for *Time Evaluation*, and, if necessary, modified them to suit your requirements.

For more information, see Customizing for *Time Evaluation*.

Customizing Time Evaluation

Use

The special structure of time evaluation means that numerous Customizing options are available to enable you to take account of company-specific requirements when evaluating recorded time data. These options include Customizing tables and process control features that can be modified in line with your requirements.

Features

Unlike conventional time evaluation programs, where it is often necessary to make coding changes to cater to company-specific requirements, R/3 *Time Evaluation* provides a highly flexible program to control and customize time evaluation.

You can specify in time evaluation how excess flextime hours should be processed at the end of the month for individual employee subgroup groupings.

- If the flextime balance exceeds five hours, the excess is converted to an overtime balance.
- If the employee has a flextime balance of fewer than five hours, the hours are transferred to the subsequent month's balance.

You can also define other procedures, such as capping the flextime excess at the end of the month, or allowing the employee to take time off for excess flextime hours.

There are two simple methods of customizing the time evaluation component to cater to your company-specific requirements:

- You can set up time evaluation in Customizing by adjusting the contents of tables.

For more information, see the sections on time evaluation in the Implementation Guide.

- You can control the processing and evaluation of time data when you customize the system, and by customizing rule processing. This documentation provides an introduction to the numerous options available to you with regard to process control features.

Pair Formation

The ***processing of time events*** - which have been uploaded from the time recording systems to HR - is divided into two logical steps:

1. Firstly, the system forms time pairs from the time events. This processing step is relatively fixed, and can only be influenced to a certain extent. The procedure is known as pair formation.
2. Time wage types are generated from the pairs, time balances are calculated, and time quotas are updated. You can customize this second processing step to suit your individual requirements. Please refer to the sections on *RPTIME00* and the standard schema TM00.

In order to be able to process the individual time events and ascertain an employee's actual working hours, the system must form time pairs from the time events. ***Pair formation*** comprises three steps:

1. Time events are assigned to the current or previous day
2. Pairs are formed for each day
3. If you use plant data collection (PDC): time tickets are generated for incentive wages.

In order to be able to form pairs, the system first assigns the time event to a day. The event is not necessarily assigned to the day on/for which it was recorded. It may be logical to assign it to a time event of the previous day.

1. Pair formation

Clock-in entry	01/02/1996	05:56
Clock-out entry	01/02/1996	14:07
Time pair	01/02/1996	05:56 -14:07

2. Previous Day Assignment in Pair Formation

Previous day assignment is carried out for a night shift from 10 p.m. - 6 a.m., for example. For this particular constellation, the clock-out entry is assigned in pair formation to the previous day.

Clock-in entry	01/02/1996	21:56
Clock-out entry	01/03/1996	06:12
Time pair	**01/02/1996**	21:56 -30:12

- 24 hours is added to the time of the clock-out entry on account of the previous day assignment.
- Only time events which have been assigned logically to the same day are formed into time pairs.

- A time event is always assigned to the current or previous day in pair formation - never to the subsequent day.

Pair formation is carried out on a daily basis. In principle, pair formation is only triggered for days on which there are new time events, or a pair formation error from a previous pair formation.

Pair formation is performed within time evaluation.

You can trigger a repeat run of pair formation manually. This is necessary if you have made back-dated changes to table contents, for example. See also the section RPTIME00 Parameters [Page 441].

If pair formation is triggered for a second time, this can affect the automatic day assignment (carried out during pair formation).

Processing Structure of Pair Formation

Use

Time events are formed into time pairs before the data is evaluated by the time evaluation driver *RPTIME00.* All time events are processed that have been

- Uploaded from a time recording system to the HR system
- Entered online in the *Time Events* infotype (2001)

For more information, see Connection with External Time Recording Systems [Page 711].

Features

- After they have been uploaded, the new time events are inserted in table TEVEN.

  All recorded, processed, unprocessed and deleted time events that have ever been entered or uploaded into the HR system are stored in table TEVEN.

- All new time events that are loaded into the HR system are also copied to table NT1.

  Table NT1 contains all unprocessed time events. The table serves as a pointer to any time events that have not yet been processed. Table NT1 is stored in cluster B1 in file PCL1.

- After pair formation, the time pairs are inserted in table PT (pair table, Cluster B2), where they can be accessed for further processing. All processed time events are deleted from table NT1.
- Time events that could not be processed due to an error are logged in table NT2 (in cluster B1).

See also:

Tables in Cluster B2 [Page 600]

Cluster B1 [Page 597]

Previous Day Assignment in Pair Formation

Purpose

At the start of pair formation, the individual time events are assigned to a specific day. This can be the current or the previous day, according to the employee's daily work schedule.

A time event can never be assigned to a subsequent day in pair formation.

Previous day assignment:

Planned working time (DWS)	**01/02/1996**	**22:00 – 06:00 (10 p.m. - 6 a.m.)**
Clock-in entry	01/02/1996	21:56
Clock-out entry	01/03/1996	06:07
Time pair	**01/02/1996**	21:56 -30:07

The employee has worked a night shift. In order that pair formation can be carried out, the clock-out entry must be assigned to the previous day. This is done by comparing the time events to the relevant daily work schedule.

Process Flow

1. To form pairs for a (logical) day, the system takes account of all time events of this and the subsequent day.
   The (logical) first time event of the day is determined. The system skips all time events which have already been assigned to the previous day.
2. According to the settings made when your system was customized, a daily work schedule [Page 411] is determined dynamically on the basis of the first time event, or the daily work schedule in the employee's personal work schedule is taken as the basis for further processing.
3. The system then decides for each further time event whether it should be assigned to the day on which the daily work schedule starts, or if it gives rise to a new (logical) day. The interval from the last time event and from the end of the daily work schedule is evaluated. Since there may be a missing time event, the attendance/absence status is also taken into account (two consecutive clock-in entries).

Evaluating the interval between time events:

Planned working time (DWS)	**01/02/1997**	**06:00 – 14:00**
Clock-in entry	01/02/1997	05:56
Clock-out entry	01/03/1997	14:03

Previous Day Assignment in Pair Formation

By consulting the daily work schedule, the system is able to ascertain that the time span between the two time events is too great for a realistic pair to be formed. The second time event is therefore not assigned to the previous day.

The following open time pairs are formed:

Pair formation:	01/02/1997	05:56 – ____
	01/03/1997	____ -14:03

The system specifies a message for the open time pairs using the *status from pair formation* (STAT1):

- Pair for January 2nd, 1997: No clock-out entry
- Pair for January 2nd, 1997: No clock-in entry

Dynamic Daily Work Schedule Assignment in Pair Formation

Use

If the actual hours worked by an employee do not correspond to the working time stipulated in his or her daily work schedule (taking account of substitutions), the assignment of a time event to the previous day does not always achieve the desired result. The HR system therefore provides a further option for forming correct time pairs from time events.

The following example demonstrates why assigning a time event to the previous day does not guarantee correct pair formation in certain cases:

An employee is to work from 10 p.m. to 6 a.m. on January 2nd and 3rd, 1997, according to the daily work schedule. The following time events are recorded however:

P10 - *Clock-in*	01/02/1997	05:00
P20 - *Clock-out*	01/02/1997	14:10
P10 - *Clock-in*	01/03/1997	05:50
P20 - *Clock-out*	01/03/1997	14:10

The clock-in and clock-out entries for January 2nd, 1997, are assigned to January 2nd, 1997. Since the planned daily work schedule does not end until 6 a.m. on January 3rd, 1997, the clock-in entry for January 3rd, 1997, is assigned to the previous day. This means that the system is unable to form a complete time pair on January 3rd, 1997.

It is clear from this example that it is not always sufficient to refer to the planned working time stipulated in the employee's daily work schedule. The HR system therefore allows a daily work schedule to be assigned dynamically in pair formation.

Dynamic daily work schedule assignment is only relevant to previous day assignment in pair formation. This dynamic assignment can be controlled in more detail in the environment of time evaluation, where information regarding payment can also be determined .

Features

Certain tolerance intervals are taken into account for the *dynamic assignment of daily work schedules*. If the first time event of the day is within the specified time frame, a daily work schedule is assigned dynamically.

Dynamic Daily Work Schedule Assignment in Pair Formation

You can define a time frame for the first time event of the day in the *Dynamic Assignment of Daily Work Schedules* view (V_T552V).

Please note that only the *type for daily work schedule assignment* 01 is read for the dynamic assignment of daily work schedules during pair formation.

The table is read with the correct date, the time interval that contains the clock-out entry, and the employee's daily work schedule grouping and period work schedule. If there is an entry with the *type for daily work schedule assignment* 01, the specified daily work schedule is assigned to the employee.

Comparison: The above example after dynamic assignment of daily work schedule

Planned working time according to employee's personal work schedule (*Night*) on January 2 and 3, 1997: 10 p.m. – 6 a.m.

Skeleton time in the *Dynamic Assignment of Daily Work Schedule* view :

Skeleton time	Type for DWS assignment	Daily work schedule
05:00 - 07:00	01	Early
14:00 -15:00	01	Late
22:00 -23:00	01	Night

Employee's time events:

P10 - *Clock-in*	01/02/1997	05:00
P20 - *Clock-out*	01/02/1997	14:10
P10 - *Clock-in*	01/03/1997	05:50
P20 - *Clock-out*	01/03/1997	14:10

Time pairs formed and daily work schedule assigned:

Time pair		Assigned DWS
05:00 -14:10	- 01/02/1997	Early
05:50 -14:00	- 01/03/1997	Early

Result: According to his or her personal work schedule, the employee should have worked night shift. By assigning the daily work schedule dynamically, the pair formation function is able to assign the employee to the early shift and form time pairs accordingly.

Determining Status and Pair Type During Pair Formation

Use

After time events have been assigned to a specific day, they are formed into time pairs.

When time pairs are formed, additional information on the status and type of each pair is stored. This data is then evaluated in time evaluation. The *pair type* provides information on an employee's attendance/absence status. The *status* of the time pairs notifies the time evaluation program of incomplete time pairs.

Features

Pair formation

Certain attendance and absence statuses are a prerequisite for time events.

When an employee is described as at work or absent in the following section, it has a different meaning to the attendances or absences that are recorded in the *Attendances* (2002) and *Absences* (2001) infotypes in time recording.

In pair formation, an attendance means that the employee is working for the company, that is, his or her last time event was a *clock-in*, *off-site work entry*, or similar. If an employee is referred to as absent, it means that his or her last time event was a *clock-out* or similar.

Each time event stipulates what the employee's attendance/absence status must be before and after he or she makes the entry at the terminal, so that a correct pair can be formed.

A clock-in entry must follow on from an absence. If a correct time pair is to be formed, only a *clock-out* entry, a *start of off-site work* entry, or a *start of break* entry may follow a clock-in entry.

Att./absence status before recording of time event	Time event	Att./absence status after recording of time event
Absent	Clock-in	At work
At work	Clock-out	Absent
At work	Start of off-site work	Off-site

This particular attribute allows the system to differentiate between time events for pair formation.

An employee has been absent. His or her first and only time event of a day is a *start of off-site work* entry. An attendance is a prerequisite for this time event type, however. The system forms two open pairs:

Employee's time event	01/02/1997	08:00	Start of off-site work

Pair formation	01/02/1997	____ - 08:00	
	01/02/1997	08:00 - ____	

Categorizing time events:

Three groups of time events are distinguished:

1. *Time events which open a pair:*

The employee has been absent, and is now at work or working *off-site*.

- P10 *Clock in*
- P35 *Manual start of off-site work*

2. *Time events which close one pair and open another:*

The employee is at work, working off-site, or taking a break. .

- P15 Start of break
- P25 End of break
  - P30 Start of off-site work
- P40 End of off-site work

3. *Time events which close one pair, but do not open another:*

The employee was at work or off-site, and is now absent.

- P20 *Clock-out*
- P45 *Manual end of off-site work*

  If there is another P10 clock-in entry after a P20 clock-out entry, no pair is formed for the duration of the absence.

The pair type of a time pair

The pair type of the time pair describes an employee's attendance or absence status. It specifies whether the employee is at work, taking a break or working off-site.

0	Non-recorded absence or break
1	Employee is at work
2	Employee is absent This pair type is not assigned during pair formation
3	Employee working off-site

The status of a time pair

A status is assigned to each time pair during pair formation. The status indicates whether the pair is complete, or if a clock-in/out entry is missing. Time evaluation's schema processing either continues or cancels further processing, depending on the status of the time pair.

The status can have the following specifications:

BLANK	Pair is complete
2	No clock-in
3	No clock-out
4	No break end time
7	No start time for off-site work
8	No end time for off-site work
E	Order confirmation missing from PDC

The employee's attendance status is updated when the individual time events of the day are processed.

A status is assigned to time pairs in pair formation to denote any open time pairs. Time evaluation's schema processing can interpret the status and react accordingly, for example, by delimiting a pair, triggering a recalculation, or issuing an error. The sections that follow contain further information.

Pair formation also generates an error in some cases. This means that the system cannot process a time event or form an open pair. These time events are inserted in table NT2.

When the system is customized, settings can be made to specify how the pair formation function should react in specific situations. You can stipulate whether the system should issue an error message, or generate an open pair.

For further information, see also *Define settings for pair formation* in the Implementation Guide.

Overview of status transitions

The employee is absent:

New time event	New pair type	Status/error	Customizing
Clock-in	At work	3: No clock-out	
Start of break 1st pair	At work	3: No clock-out	X
Start of break 2nd pair	On break	2: No clock-in	X
Clock-out	At work	2: No clock-in	X
End of break	At work	3: No clock-out	
Start of off-site work 1st pair	At work	2: No clock-in	X
Start of off-site work 2nd pair	Off-site	8: No end time for off-site work	X
End of off-site work 1st pair	Off-site	7: No start time for off-site work	X
End of off-site work 2nd pair	At work	3: No clock-out	X

Determining Status and Pair Type During Pair Formation

Manual start of off-site work	Off-site	8: No end time for off-site work	
Manual end of off-site work	Off-site	7: No start time for off-site work	X

For the constellations flagged by an X, you can choose whether to generate an error or an open pair.

The employee is at work:

New time event	New pair type	Status/error	Customizing
Clock-in		Error: No clock-out	X
Start of break	On break	4: No end time for break	
Clock-out	Absent	BLANK: Pair is complete	
End of break		Error: No clock-out	
Start of off-site work	Off-site	8: No end time for off-site work	
End of off-site work		Error: No start time for off-site work	X
Manual start of off-site work		Error: No clock-out	
Manual end of off-site work		Error: No start time for off-site work	

The employee is working off-site:

New time event	**New pair type**	**Status/error**	**Customizing**
Clock-in	At work	3: No clock-out	X
Start of break	At work	4: No end time for break	
Clock-out		Error: No end time for off-site work	X
End of break	At work	3: No clock-out	
Start of off-site work		Error: No end time for off-site work	
End of off-site work	At work	3: No clock-out	
Manual start of off-site work		Error: No clock-out	
Manual end of off-site work	Absent	BLANK: Pair is complete	

Employee is on a break:

New time event	New pair type	Status/error	Customizing
Clock-in	At work	3: No clock-out	
Start of break		Error: No end time for break	
Clock-out		Error: No end time for break	
End of break	At work	3: No clock-out	
Start of off-site work		Error: No end time for break	
End of off-site work		Error: No end time for break	
Manual start of off-site work		Error: No end time for break	
Manual end of off-site work		Error: No end time for break	

Delimiting Time Pairs in Time Evaluation

After time pairs are formed, they are checked in time evaluation's rule processing using personnel calculation rule TE30, and completed if necessary. The status is then set to A in this case.

1. Example

The employee records the following time events:

P10 - *Clock-in*	01/02/1997	08:00
P20 - *Clock-out*	01/02/1997	12:30
P10 - *Clock-in*	01/02/1997	13:00

Pair formation generates the following pairs, pair types and statuses for the day:

Date	Start and end time	Pair type	Status
01/02/1997	08:00 - 12:30	at work	BLANK: pair is complete
01/02/1997	13:00 - ____	at work	3: no clock-out

The second pair is incomplete. Time evaluation interprets the status according to the rules in personnel calculation rule TE30. Depending on how long after the end of the daily work schedule the time evaluation program is run, either the missing clock-in entry is provided, or the system issues an error message.

The pair can be delimited using the end of the daily work schedule (for example, 4.30 pm), in which case the pairs are as follows:

Date	**Start and end time**	**Pair type**	**Status**
01/02/1997	8:00 - 12:30	at work	BLANK: pair is complete
01/02/1997	13:00 - 16:30	at work	A: Generated automatically. Pair is delimited

2. Example

The employee records the following time events:

P30: End of off-site work	01/02/1997	10:00
P15: Start of break	01/02/1997	12:30
P25: End of break	01/02/1997	13:00
P20 - *Clock-out*	01/02/1997	17:00

Pair formation generates the following pairs, pair types and statuses for the day:

Date	**Start and end time**	**Pair type**	**Status**

01/02/1997	____ - 10:00	off-site	7: no start time for off-site work
01/02/1997	10:00 - 12:30	at work	BLANK: pair is complete
01/02/1997	12:30 - 13:00	on break	BLANK: pair is complete
01/02/1997	13:00 - 17:00	at work	BLANK: pair is complete

The first pair is incomplete; time evaluation interprets the status and generates an error.

The time data administrator can record the time event manually:

P35: Manual start of off-site work	01/02/1997	08:00

The system then generates the following pairs:

Date	Start and end time	Pair type	Status
01/02/1997	08:00 - 10:00	off-site	BLANK: pair is complete
01/02/1997	10:00 - 12:30	at work	BLANK: pair is complete
01/02/1997	12:30 - 13:00	on break	BLANK: pair is complete
01/01/1997	13:00 - 17:00	at work	BLANK: pair is complete

Time Evaluation Using RPTIME00

Use

The *time evaluation* report RPTIME00 evaluates employee time data which has been recorded in time infotypes or at time recording terminals.

Features

The time evaluation report *RPTIME00* is generally started as a background job once daily (usually overnight). This guarantees up to date results. If data is changed for a period which has already been evaluated, the changes are automatically taken into account the next time the report is run. This ensures reliable and complete results.

Time evaluation is generally run for large groups of employees. It is also possible to start the report for individual employees or employee groups, or for specific evaluation periods. This is a useful function for test purposes.

The results of time evaluation can be displayed online or printed in forms, which you can customize to your requirements.

Customizing the processing steps

Time evaluation can be influenced by various rules, which you can customize according to the specific requirements of your company. You can determine:

- Which time wage types are generated
- Which balances are formed
- How they are cumulated
- Which quotas are reduced, and so on

- Conversion of hours from the flextime balance to an overtime wage type if a certain number of hours has been exceeded at the end of a period
- Company-internal regulations for overtime calculation

These rules allow for the flexible processing of time data. Different results may be obtained from time evaluation according to the days evaluated, the employee's organizational assignment or the nature of the time data recorded, for example.

- An attendance on a weekday should be processed differently to an attendance on a public holiday
- there should be different regulations for calculating overtime for hourly paid employees and salaried employees

Time Evaluation: Input

The *Time Evaluation* component requires access to different types of data in order to evaluate recorded time data. This includes general information from Customizing tables that is relevant to all employees and has an influence on the time evaluation process.

Time evaluation also requires the following information that is specific to individual personnel numbers:

Data from Personnel Administration

There are several infotypes in the *Personnel Administration* component that contain the information *time evaluation* requires to control the processing of data for individual employees. Special processing steps can then be performed according to the employee's organizational assignment, *Time Management status* and so on. Time evaluation obtains the information from the following infotypes:

Personnel Actions (0000)	Basic Pay (0008)
Organizational Assignment (0001)	Date Specifications (0041)
Personal Data (0002)	Red.Hrs./Bad Weather (0049)
Planned Working Time (0007)	Time Recording Information (0050)

- The infotypes in bold print must be maintained for the employee being evaluated in all cases. There is a special rule for the *Time Recording Information* infotype (0050): You only have to create it if you work with time recording systems.
- All infotype records are supplied from the transparent tables ***PAnnnn*** (where nnnn is the number of the infotype).

Time data

The time evaluation driver can reference data from the following infotypes in order to process the employee's time data:

Leave Entitlement (0005)	Overtime (2005)
Leave Compensation (0083)	Absence Quotas (2006)
Absences (2001)	Attendance Quotas (2007)
Attendances (2002)	Time Events (2011)
Substitutions (2003)	Time Transfer Specifications (2012)
Availability (2004)	Quota Corrections (2013)

Exactly which time infotypes are read depends on the method of recording time data and on the time infotype records that have been entered for the employee.

The time infotype records are also stored in tables ***Pannn***, with the exception of the *Time Events* infotype (2011).

Time Evaluation: Input

If you use time recording systems, the *Time Events* infotype (2011) displays data from table TEVEN which stores the time events. The time events themselves are not imported for time evaluation, but the time pairs from the pair table PT.
For more information, see Pair Formation [Page 406].

Payroll status

The *recalculation date for PDC* is recorded in the *Payroll Status* infotype (0003). The date in this field determines the first date be included in the next time evaluation run.

For more information, see Evaluation Period and Recalculation Recognition [Page 431]

Status from the last time evaluation run

Essential data on the status of the last evaluation run, particularly when time recording systems are being used, is read from Cluster B1 [Page 597] This provides time evaluation with information on

- The recalculation date for pair formation
- Information messages and notes generated during the last evaluation run
- Time events which have not (yet) been processed

Result data - data on previous evaluation results

Time evaluation requires the results of previous evaluations in order to have access to interim balances, wage types and a log of quota deduction. This information is necessary if a recalculation is required, but also for the current evaluation.

Balances required to calculate the weekly working time.

The results of the last run of time evaluation are read from Cluster B2 [Page 599]

Time Evaluation: Output

The results of time evaluation are saved to various tables. Results include:

- Time balances
- Time wage types
- Data for updating infotypes (for example, time quotas)
- Messages from time evaluation

The results can be used for a number of different tasks:

- They are passed on to payroll
- They make up the input for the next run of time evaluation
- They can be used for reporting (the time statement, for example) and for evaluations
- Special situations which have arisen in time evaluation can be brought to the attention of the user in the form of messages and can be edited online
- If you use time recording systems, certain balances can be supplied for the download

The data determined in time evaluation is stored as follows:

Result data

When processing is complete, the results of time evaluation are stored in the various tables in clusters B1 and B2.

All results of time evaluation (cumulated balances, time wage types, messages etc.) are stored for individual employees and periods in Cluster B2 [Page 599]. Cluster B2 is used to maintain a history of time data.

Cluster B1 [Page 597] contains the selected time balances which are read for the download to the time recording system.

To view clusters B1 and B2, choose *Human Resources* → *Time management* → *Administration* → *Tools* → *Tool selection.*

Updating infotypes

Infotype records are updated in time evaluation:

- When time evaluation is complete, the date on which the next run should start is written to the *Payroll Status* infotype (0003).

  This is required if time evaluation had to be canceled due to an error, for example, and restarted as of the day on which the error occurred.

- The entitlement and amount used of a quota in the *Absence Quotas* (2006) and *Attendance Quotas* (2007) infotypes can be changed by time evaluation.

- If you record time data at time recording systems, employees may be authorized to enter absence and attendance reasons at the terminal. The reasons are processed in time evaluation, and locked records are generated for the *Absences* (2001) and *Attendances* (2002) infotypes.

Time Evaluation: Output

General status data

General status data is entered in table QT, cluster B1, at the end of the time evaluation run. Examples of general status data are the last day processed, last time error handling was performed and so on.

Updating other tables

If you use time recording systems, table TEVEN is also updated with the day assignment of the time events once time evaluation is complete.

If you also evaluate the data of external employees, the interface table COIFT is updated.

For more information, see Time Evaluation for External Services [Page 708]

Processing Structure of Time Evaluation

Definition

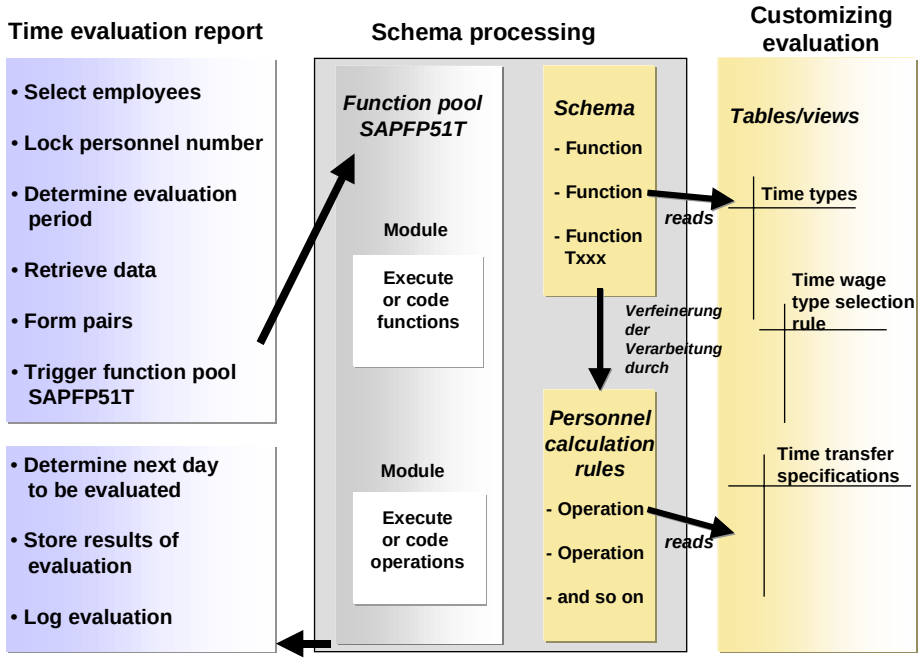
Time evaluation consists of three parts:

- The time evaluation report RPTIME00
- Schema processing
- Customizing time evaluation

Use

Unlike the common time evaluation programs, the rules used to valuate time data in SAP's *Time Evaluation* component are not hard-coded. This provides you with the option of customizing time evaluation to cater for the specific requirements of your company.

Structure



The time evaluation report RPTIME00

The *time evaluation report RPTIME00* forms the core of time evaluation in the SAP System. It takes on a general control role in time evaluation. This includes:

- Selecting employees for time evaluation
- Retrieving data
- Determining the evaluation period

Processing Structure of Time Evaluation

- Storing the evaluation results

The time evaluation report triggers function pool SAPFP51T to valuate the time data. The function pool calls application components, which process the time data.

Schema processing

Time data processing is made up of individual processing steps, which are controlled by rules. Schema processing defines which processing steps should be performed in which order to valuate the time data, and specifies how the individual steps should be executed.
The execution of the processing steps is defined in function pool SAPFP51T and is hard-coded. Actual processing takes place according to the rules specified when the system was customized.

For detailed information on the structure of schema processing and the tasks of the time evaluation report RPTIME00, see: Basic Concepts and Structure of Schema Processing [Page 427] and Distribution of Tasks between the Time Evaluation Report RPTIME00 and Schema Processing [Page 429]

Customizing the evaluation

Certain steps and global settings in time evaluation are determined in greater detail by making entries in customizing tables, independently of schema processing.

Time types:

In the time types table, you specify which time balances you wish to form and how they should be stored.

Basic Concepts and Structure of Schema Processing

Processing individual processing steps

Time data processing in time evaluation is made up of individual processing steps ***Schema processing*** defines which processing steps should be performed in which order to valuate the time data, and specifies how the individual steps should be executed.

The individual sub-steps which are executed during time evaluation are called *functions*. Functions are stored in a ***schema***.

- Function for time wage type formation
- Function for the cumulation of balances
- Functions for overtime calculation

The execution of each function is specified in a module of function pool SAPFP51T and is hard-coded.

The *time evaluation report RPTIME00* triggers the function pool *SAPFP51T*. The function pool interprets the control tables on the basis of the schema and executes the specified functions. The functions in the schema are processed one by one.

Sequence of the processing steps

The functions are processed in a specific sequence. The sequence is not hard-coded, but can be specified when your system is customized. The sequence in which the individual functions are processed in time evaluation is determined by the order of the functions in the schema.

The data recorded for the employee and his or her personal work schedule are imported at the start of time evaluation using functions. Further functions are used to check the data for errors as processing continues. Only then can time evaluation be supplied with the necessary data to classify the recorded data, calculate overtime and to form balances and time wage types, for example.

Refining individual processing steps

Certain functions can be used to define the individual sub-steps in greater detail. *Personnel calculation rules* describe the sub-steps to be carried out. The individual components of a personnel calculation rule are known as *operations*. As for the functions, the modules of function pool SAPFP51T specify how the personnel calculation rules should be executed. Personnel calculation rules are created or modified when the system is customized, as are schemas.

Standard processing methods

The standard SAP system provides a number of schemas which cater for different requirements in time evaluation.
When the *time evaluation report RPTIME00* is started, a parameter is selected to specify which schema should be used for processing.

Basic Concepts and Structure of Schema Processing

The schemas in the standard SAP system can serve as references for customizing the time evaluation program. Depending on which schema you use as a reference schema and enter on the report selection screen, you can:

- Evaluate the time data of employees for whom only exceptions to the work schedule are recorded (schema TM01)
- Evaluate time data which has been recorded at time recording terminals (schema TM00)
- Evaluate time data which has been recorded with or without clock times (schema TM04)
- Evaluate the data of external employees (schema TM02)

For more information on the schemas, see: Time Evaluation Schemas [Page 497].

Distribution of Tasks Between Report RPTIME00 and Schema Processing

Use

The following section tells you which tasks are performed by the report *RPTIME00.*

There is a more detailed explanation on each of the following points in the subsequent chapters of the documentation.

Features

The report *RPTIME00* performs the general control of time evaluation.

The processing of the schema and the individual sub-tasks (functions) contained in the schema are programmed in a function pool, *SAPFP51T*. Schema processing for *SAPFP51T* is called by *RPTIME00*. *RPTIME00* fulfils the following tasks to allow schema processing to be performed:

Selecting personnel numbers

RPTIME00 does not only select personnel numbers for time evaluation on the basis of the entries on the report selection screen. There are also certain preconditions which must be fulfilled before an employee's time data can be evaluated.

See also: Selecting Personnel Numbers for Time Evaluation [Page 439]

Locking personnel numbers

RPTIME00 locks the personnel number which is being evaluated for the duration of the time evaluation run This means that data cannot be recorded for the employee during this period.

Determining the evaluation period (periods per person)

The *Time evaluation* report (RPTIME00) checks which day is to be evaluated first for each employee. This ensures that retroactive changes made to employee or time data are taken into account, and that time evaluation is run again for days which have been evaluated with errors. The system automatically triggers a *recalculation* back to the day for which changes have been made. You can also trigger a recalculation manually.

See also: Evaluation Period and Recalculation Recognition [Page 431]

Importing data - input from the database

RPTIME00 reads the data that is required for time evaluation from the database, for example: .

- Infotype records recorded for the employee
- Previous time evaluation results
- Time events

If you use time recording systems and time pairs have already been formed when the time events were updated, the time pairs are also imported.

See also: Time Evaluation: Input [Page 421]

Distribution of Tasks Between Report RPTIME00 and Schema Processing

Pair formation

If your employees enter their time data at time recording systems, pair formation [Page 406] is generally triggered by *RPTIME00*. Pair formation refers to the process of grouping *time events* into time pairs.

Triggering schema processing for time data evaluation

RPTIME00 calls the function pool *SAPFP51T*. The sub-steps of the schema are processed within the function pool by calling the appropriate processing routine for each function

For further information on schema processing, see Time Data Processing in Time Evaluation [Page 448] and Day Processing of Time Data [Page 468].

Determining the next day to be evaluated

When schema processing is complete, time evaluation determines the start date for the next time evaluation run and updates the *Recalculation date for PDC* field in the *Payroll Status* infotype (0003). The starting date for time evaluation is calculated as follows: date of last day which was evaluated without errors + 1.

Storing the results: Export to the database

The results are exported once processing is complete. Infotype records are updated and the time data is made accessible for the next time evaluation run.

See also: Time Evaluation: Output [Page 423]

Logging processing steps and displaying results

RPTIME00 can generate a log of the individual processing steps which were performed in time evaluation. If you specify a form on the report selection screen, *RPTIME00* issues a time statement.

See also: RPTIME00: Log of Processing Steps [Page 446] and The Time Statement [Page 801]

Evaluation Period and Recalculation Recognition

Use

Before time evaluation commences, *RPTIME00* determines the evaluation period. The date specifications which can be entered on the report screen of *RPTIME00* are only of limited relevance.

As well as the evaluation period, time evaluation also determines the corresponding time evaluation periods so that the valuation is performed according to the period. This is of particular importance when balances are calculated, and possibly also transferred, at the end of an accounting period.

The Time Evaluation and Payroll Periods

Definition

To periods that are crucial to time evaluation.

Structure

The time wage types that have been determined in time evaluation are passed on to payroll and are used there to calculate the gross wage. Payroll is run periodically; the periodicity can differ according to the payroll area.

Payroll area D1 - Salaried employees - payroll periodicity: monthly

Payroll area D2 - Hourly paid employees - payroll periodicity: weekly

The time wage types which have been generated for the current payroll period are required to run the payroll. In order to perform retroactive accounting, the payroll report must also be supplied with the time wage types determined for the previous period. The time wage types for each period are stored in Cluster B2 [Page 599].

The periodicity of time evaluation is referred to as the time evaluation period. The time evaluation period is not defined according to the payroll area, but is determined globally when the system is customized.

- The time evaluation period is determined via → *Define accounting period* in the Implementation Guide for Time Management. You enter date specifications for the time evaluation period in this step. If you do not wish to use the standard periodicity, you can use the macro RP_DEF_TIME_PERIOD to define your own time evaluation period.
- The payroll period for a payroll area is determined in the step → *Create payroll area* in the Implementation Guide for Personnel Administration.

If you use only one periodicity in payroll, you will use the same one for the time evaluation period. If you use two different periodicities, the time evaluation period should be the longer of the two.

You use two different periodicities for payroll. The payroll is run monthly for payroll area D1, and weekly for D2. Choose a monthly periodicity for time evaluation.

If you use different accounting periodicities, you can specify regulations in time evaluation regarding the end of the payroll or time evaluation period. You can use function IF in the schema to query the end of the period.

Query period

Function	Parameters	Meaning
IF	EOM	If end of time evaluation period has been reached, ..

ENDIF		End function of condition at end of processing block
IF	EOP	If end of payroll period has been reached, ...
ENDIF		End function of condition at end of processing block

For more information on functions, see: Schemas and Functions in Time Evaluation [Page 452]

Recalculation Recognition - Determining the First Date to be Evaluated

Use

The *Time evaluation* report (RPTIME00) checks which day is to be evaluated first for each employee. There are two reasons for this. An employee's time data can only be accounted correctly if there are no gaps in time evaluation, that is, all days have been evaluated. This also means that retroactive changes in employee data that are relevant for payroll must lead to a recalculation run.

Features

RPTIME00 determines the start date for time evaluation automatically. It generally begins on the day following the last day to have been evaluated without errors. This date is show in the *Recalculation for PDC* field in the *Payroll Status* infotype (0003).

If time evaluation is terminated due to an error, the *PDC error indicator* field in the *Payroll Status* infotype (0003) is activated.

If retroactive changes have been made to infotypes, periods that have already been evaluated without errors may have to be evaluated again. This function is referred to as a *recalculation*. The recalculation is usually triggered automatically, but you can also trigger it manually.

Whether changes made to infotypes should trigger a recalculation

In the *Infotypes* view (V_T582A), you can specify for each infotype whether or not changes are relevant to recalculation. You can use the *Recalculation relevance PDC time evaluation* field to define

- Whether the infotype is relevant to recalculation
- Whether only changes to specific fields in the infotype should trigger a recalculation

You can specify individual infotype fields that are relevant to recalculation using the *Field-Specific Recalculation Indicators* view (V_T588G).

Setting the earliest recalculation date

In order to avoid that recalculations are made for periods which are too far back in the past and have already been evaluated or are no longer relevant to time evaluation, you can set an *earliest recalculation date*. The earliest recalculation date can be the same for all employees who take part in time evaluation, or vary from one employee to the next. It is not generally possible to run time evaluation for a period before the earliest recalculation date.
If changes which would affect the results of time evaluation are made to infotypes for a period before the earliest recalculation date, the system issues a warning or an error message.

Employee-specific

You can set the earliest recalculation date for an individual employee in the *Payroll Status* infotype (0003). Enter the appropriate date in the field *Earliest personal recalculation date for time evaluation*.

For all employees

You can choose the menu path *Human resources → Time management → Administration → Tools → Current settings* and the step *Set earliest recalculation date for pair formation/time evaluation* to define an earliest recalculation date for all employees who take part in time evaluation.

The earliest recalculation date is always the later of the two dates.

Personal earliest recalculation date for time evaluation	10/01/1995
Earliest recalculation date for pair formation/time evaluation	01/01/1996
Earliest recalculation date	01/01/1996

Recalculation recognition

The date on which time evaluation starts is determined from the earliest of the following dates: There are three reasons for the system to trigger a recalculation

The recalculation date in the Payroll Status infotype (0003)

The starting date for time evaluation is specified in the *Recalculation date for PDC* field in the *Payroll Status* infotype (0003). This is generally the day following the last day to have been evaluated without errors.

If changes are made retroactively to infotypes that are flagged as relevant to recalculation, the *recalculation date for PDC* is reset automatically in the *Payroll Status* infotype (0003).

The recalculation date for pair formation

The recalculation date for pair formation is not stored in the *Payroll Status* infotype (0003), but is derived from the entries in tables in Cluster B1 [Page 597] It is possible for a recalculation in time evaluation to start at an earlier date than specified in the *Payroll Status* infotype (0003).

The recalculation date for pair formation is taken for performance reasons from three different date specifications:

- The date of the *last day processed* for which pair formation was started, from table QT in cluster B1. If the recalculation is triggered according to this date, the following day is taken as the starting date for pair formation and time evaluation.
- If an error occurs for a day in pair formation, the error is written to table ERT (error table) and the date of the error to table NCT (days to be recalculated). The recalculation is triggered on the basis of the entry in table NCT. The same date is taken as the starting date for pair formation.
- If time events have been recorded at a later stage online in the *Time Events* infotype (2011), this recalculation date is entered in table NT1 in Cluster B1.
  Time events which have been recorded subsequently can have an effect on the previous day assignment. Time evaluation must determine:
  - whether the time event should be assigned to the previous day
  - whether the previous day assignment of an existing time event changes through the new time event.

If the previous day assignment does not change due to the new time event, the start date for pair formation is the date in NT1. If it does change, the previous day is also included in the evaluation.

A manually triggered forced recalculation

It may be necessary to trigger a forced recalculation manually for the following reasons:

- You want to view data again for a day that has already been evaluated You should set the *RPTIME00* parameter *Test utilities* to ON if you require a detailed log of processing.
- Table contents have been changed retroactively.

  Changes made to tables do not trigger an automatic recalculation. The system only uses the current table contents in time evaluation.

You can use one of two functions to trigger a forced recalculation:

- Forced recalculation for multiple employees:
  You set the *forced recalculation date* on the report selection screen [Page 441] of RPTIME00.
- Forced recalculation for an individual employee:
  You reset the *Recalculation date for PDC* in the *Payroll Status* infotype (0003). This function should only be used for test purposes. You should not set the recalculation date to a later date, since otherwise there may be gaps in time evaluation, that is, periods that have not been evaluated.

  To call the maintenance mode for the *Payroll Status* infotype (0003), choose *Human resources* → *Time management* → *Administration* → *Tools* → *Tool selection* → *Payroll status.*

Setting the Earliest Recalculation Date for the Time Evaluation Report

Use

The *earliest recalculation date for the time evaluation report* defines the earliest date for recalculations. Time data that is valid before this date is not reevaluated, even if it is relevant.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Current settings*
2. Choose *Set earliest recalculation date for time evaluation*.

   Place the cursor on the icon and choose *Choose*. The *Earliest recalculation dates for control record* view appears.
3. Enter an appropriate date in the *Earliest recalculation date* field.

   The date is April 1, 1996. In your enterprise, time data is recalculated only for the last three months.

   Enter 12/31/1995 in the *Earliest recalculation date* field.
4. Save your entries.

Result

You have defined the earliest recalculation date for the *time evaluation* report. Time data is reevaluated only back to this date.

Determining the Last Day to be Evaluated

Use

You can enter the last day which should be included in the evaluation on the report selection screen of the time evaluation report *RPTIME00*.

Features

In conjunction with the *forced recalculation date,* you can overwrite the date specified in the *Evaluation up to* field with any date in the past. This is useful if you want to evaluate a certain period again for test purposes.

The earliest recalculation date for time evaluation must be observed. The date in the *Evaluation up to* field must be after the *forced recalculation date*.

When you access the time evaluation report, the current system date is entered automatically in the *Evaluation up to* field. In the standard system, the report is only run up to this date.

Please note that the *Evaluation up to* field should be blank if you want to define a report variant for daily time evaluation.

If you enter a date in the *Evaluation up to* field, you can also evaluate time data for future dates.

You can only run time evaluation for a future period if a certain switch has been set in the schema. If this switch is set, the report does not check whether the date entered in the *Evaluation up to* field is a future date.

The switch is set in the schema using function CHECK [Page 464].

Selecting Personnel Numbers for Time Evaluation

Use

There are two factors which are relevant to personnel number selection for time evaluation. Firstly, you specify on the report selection screen which employees should be included in the evaluation. Secondly, there are certain preconditions which must be fulfilled for time evaluation to select the employees entered on the selection screen.

Prerequisites

The following prerequisites must be fulfilled for an employee to be selected by time evaluation:

- The personnel number must not be locked at the time of the evaluation. There is a lock entry if the personnel number has been accessed in maintenance mode within an application.
- The employee must be actively employed with the company for at least one day within the evaluation period. Time evaluation checks whether the employee is allocated *employment status 3* (active - *Actions* infotype (0000)).
- The employee must be assigned a *Time Management status* other than 0 (1, 2, 8, or 9) in the *Planned Working Time* infotype (0007).
- Within a schema, you can specify which *Time Management status* should be assigned to an employee for his/her data to be evaluated using this schema. Only employees with the relevant *Time Management* status are then selected.

The *Time Management status* is checked in the schema using function CHECK. For more information on this selection option, see Using Function CHECK to Select Employees [Page 464].

Activities

You will normally run time evaluation overnight as a background job for a group of employees or all employees, and not for individual employees. You can create a special report variant for this purpose in Customizing.

For more information, see the step → *Schedule time evaluation* in the Implementation Guide.

The selection of personnel numbers can also be controlled via the selection screen of the logical database. Choose *Further selections* or *Matchcodes* (for the time recording administrator, for example) on the report selection screen.

It is also possible to specify individual employees on the report selection screen for test purposes.

After employees' time data has been corrected in error handling, the time evaluation report automatically selects the corresponding personnel numbers:

Selecting Personnel Numbers for Time Evaluation

Once messages have been processed, all employees can be evaluated again for the corrected periods. The relevant personnel numbers are selected automatically.

The employees with corrected periods are automatically included in the next run of *RPTIME00* (recalculation).

RPTIME00 Parameters

Definition

Options for controlling time evaluation performed by report RPTIME00.

Use

When you start *RPTIME00*, the report selection screen provides selection options and parameters which you can use to:

- Select employees for time evaluation
- Set specific parameters for time evaluation

You will also use these parameters if you create variants of the time evaluation report. You can use variants if you want to start the time evaluation report frequently with the same parameters.

- Variant for the daily run of time evaluation. This variant can be scheduled in a batch run.
- Variants for test purposes

Structure

Employee Selection

Personnel number

You can enter one personnel number or a range of personnel numbers. It is also possible to select employees using a matchcode.

The following matchcodes are available in the standard system, and are specifically for selecting datasets in time evaluation.

- *B PDC error indicator*

  This matchcode is used to evaluate all employees again for whom time evaluation produced errors. The errors should first be corrected. If time evaluation has to be run again, it is not necessary to reprocess all employees' time data.

- *L Time data administrator*

  This matchcode is used to account the time data of all employees for whom one particular administrator is responsible. The system selects all employees assigned to the administrator in the *Administrator for time recording* field in the *Organizational Assignment* infotype (0001).

- *Z PDC time recording ID card*

  You can use this matchcode to select employees to be evaluated via their time recording ID number.

Parameters for time evaluation

Evaluation schema

RPTIME00 Parameters

The evaluation schema describes the processing steps to be performed in time evaluation. A schema must always be specified so that the time evaluation report can be run.

Time statement variant

Time evaluation results can be displayed as a time statement form for test purposes. The time statement variant specifies which form should be used to display the results of time evaluation.

You can create your own time statement forms, or customize standard forms to suit your requirements. For more information, see the section → *Time Statement Form* in the Implementation Guide.

You can use the *Time Statement Form* report (RPTEDT00) to output a large number of time statements.

Display variant for log

The time evaluation log knows from the variant name which user settings are used to display the log.

You can only define a display variant once you have run and logged time evaluation. When the log is displayed, choose *Settings* and specify the default values for the log tree, detail view, log search and global parameters. Save the values as a variant.

Forced recalculation as of

You can determine the start date for the evaluation here.

The system will always perform a recalculation up to the first day which has not been evaluated completely, or for which there are errors.

The forced recalculation function also allows you to reevaluate days that have already been accounted without errors.

A forced recalculation has no effect on the accounting results, so it can be repeated as often as required.

For more information, see Evaluation Period and Recalculation Recognition [Page 431]

Evaluation up to

If there are no errors, time data is evaluated up to the current system date (today's date). The Evaluation up to [Page 438] parameter allows you to enter an alternative date up to which time evaluation is to be run.

Program options

The program options allow you to set various test switches (see also RPTIME00:Log of Processing Steps [Page 446]):

- **Display log** = processing steps are logged

  The individual processing steps in time evaluation are displayed along with the personnel calculation rules that were called when the logging parameter was active. This allows you to track and check changes made to table contents.

- **Test run** = no update

You can use this function to perform a test run without saving the evaluation results. Function EXPRT is not active in this case.

- **Stop at function/operation BREAK = Display ABAP/4 coding**

  If you are interested in how the individual functions and operations work, you can display the ABAP/4 coding by setting a break point in the schema or personnel calculation rule.

  Break points are set by the individual user using function or operation BREAK, prefix NNN in the schema or personnel calculation rule.

  The ABAP/4 prefix must be stored in the user parameters.

  There are two methods of stopping at function/operation BREAK:

  - If you have maintained the prefix in your user parameters, time evaluation stops automatically at the break points with your ABAP/4 prefix; the *stop at function/operation BREAK* parameter does not have to be set.
  - If the *stop at function/operation BREAK* parameter is set, the report stops at all points at which operation or function BREAK features, regardless of the prefix.

- **Stop at fixed positions in time evaluation**

  This function is also intended for users who are familiar with ABAP/4 coding. It can be used both for test purposes and to set up the system. It stops at the following break points in *RPTIME00*:

1. After Start of selection
2. After Get Pernr
3. In the loop: Evaluation of all periods, if the evaluation includes more than one period
4. Before the infotypes and cluster tables are updated

If you are testing, it is advisable to work with a log and to limit the evaluation to one day so that the quantity of data and the number of possible error sources are limited.

Running the Time Evaluation Report (RPTIME00)

Use

The *time evaluation report* (RPTIME00) is usually run automatically every night, but can also be started manually from the menu. Ask your system administrator which method is used in your enterprise.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time accounting.*
2. Enter parameters for the report. The following parameters appear on the selection screen:

Personnel number	Enter the personnel numbers for which you want to run time evaluation.
Evaluation schema	The evaluation schema defines the steps to be performed during time evaluation. You will generally use a standard schema.
Time statement variant	The time statement variant determines how the results are to be displayed. The indicator then reads the corresponding form tables. A standard form is available.
Display variant for log	The time evaluation log knows from the display variant which user settings are used to display the log.
Forced recalculation as of	This field is usually left blank. If circumstances require, you can enter the date back to which time data **must be** reevaluated. Use this field: - If you want to display a day which has already been accounted without errors. - If employees' working time specifications have been changed retroactively.  If you do not make an entry in this field, the system sets the first day of the recalculation automatically. The system uses this set date, even if it is before the date you have specified. For detailed technical information on recalculation procedures, see Evaluation Period and Recalculation Recognition [Page 431].
Evaluation up to	Time evaluation is run up to and including this date.  If you do not make an entry in this field, the system sets the current date.

Program options	You can use this parameter to store different technical information for the time evaluation log. These options do not affect the regular time evaluation procedure.

3. Choose *Execute.*

Result

The time evaluation report is started.

RPTIME00: Log of Processing Steps

Use

RPTIME00 creates logs for each run of time evaluation. The key information for each evaluation run is output in a short log. You can also display a detailed log of the individual processing steps for each day and employee if you want to analyze errors or perform a test run.

Features

Short log of time evaluation

If you leave the *program options* parameter as it is in the standard system, *RPTIME00* generates a short processing log. *RPTIME00* prints the most important statuses, results, and statistics after an evaluation.

If errors have occurred during time evaluation, a short text denotes the processing steps where there have been errors.

The following error note is common in online operations: *HR internal error while locking. Rejected person 000XXXXX.*

This error message informs you that the personnel number was locked during the evaluation. This can happen if an infotype is being maintained with this personnel number, for example.
If the personnel number has been accessed in the maintenance mode of an HR application, for example, in the *Maintain time data* screen, this results in a lock entry.

The statistics indicate

- How many employees have been selected
- How many of them have been evaluated
- How many were accounted with errors
- The number of employees for whom processing was cancelled prematurely
- How many employees were rejected
- The total number of messages generated

Log of individual processing steps

If you set the *program options* parameter to *Display log*, the individual processing steps are displayed in addition to the information described above. Displaying the detailed log is useful for analyzing errors or for testing customer-specific processing steps.

You can use it, for example, to identify the exact stage of processing at which an error occurred, and why it occurred.

You can customize the log display to suit your individual requirements by creating a display variant for the log and using it when you run time evaluation.

In the standard system, the results of a processing step are displayed at selected points in the log by means of the results determined in the work tables [Page 582] of time evaluation. If you

add function PRINT <work table> to your schema, you can also output the results of customer-specific processing steps immediately after the processing step.

To output the results stored in table TIP, TES, and so on, insert one of the following lines after a processing step in your schema:

- PRINT TIP
- PRINT TES
- PRINT SALDO
- PRINT DZL
    - and so on

Branch to the time statement

You can output employees' time statements directly from the time evaluation log by choosing *Goto → Display form.*

Time Data Processing in Time Evaluation

Use

When you set up your system, you can customize the processing steps of time evaluation to suit your requirements.

Features

The schemas consist of a defined sequence of processing steps, which you can influence or supplement in Customizing.

Personnel calculation rules, which you can create and change in Customizing, allow you to define the processing steps in greater detail. The following are options for customizing schemas and personnel calculation rules:

- You can customize the schemas and personnel calculation rules in line with your specific requirements. To do so, you copy a standard schema or personnel calculation rule, save it under a different name, and make your changes in the copied version.
- You can create your own schemas and personnel calculation rules and insert them in the schema of your choice.

The results of the individual processing steps are stored temporarily in internal tables where they are available for subsequent processing steps.

Processing Using Internal Tables

Use

Time data is evaluated with the help of internal tables [Page 582]. These tables are filled by the processing steps in time evaluation, queried and changed if necessary. The changed data is then available for the subsequent processing step.

Functions are used to trigger the processing or reading of internal tables. Operations are used to change the data.

Features

Processing using internal tables: The work table TIP as an example

The internal table TIP (daily input) is the work table for time evaluation. The time pairs [Ext.] that have been recorded using infotypes or generated in pair formation are entered in the internal work table TIP (for example, using functions P2011 or P2000). Within time evaluation, the TIP entries are processed, changed and made available for further processing.

An employee has recorded the following time events at the time recording system for December 13, 1996:

7:53 am Clock-in, 5:06pm Clock-out

The employee worked from 8:00 am - 12 noon as a course instructor. The administrator responsible for the employee has entered this in the *Attendances* infotype (2002) as a record of less than one day.

The time events (clock-in/clock-out) that have been formed into a time pair are entered in TIP as decimal values using function P2011. Function P2002 enters the time pair for the recorded attendance in TIP.

Table TIP after function P2002 - Import the day's attendances

Start	End	1	P	ID	C	...	BR	ER	C	O	...	PT	...	AB	No.
07.8833	17.1000		1				01	02		E		02			9.2167
08.0000	12.0000	0	3		P					P				01	4.0000

For more information on the meaning of the individual fields in table TIP, see The Internal Table TIP [Page 583].

The TIP entries and general status information are evaluated and processed in individual processing steps in time evaluation. The entries in TIP are passed on line by line to a personnel calculation rule for processing.

Processing Using Internal Tables

When TIP entries are processed using a personnel calculation rule, their relevance to further processing is determined. If they are relevant, the entries are transferred line by line from the internal table TIP to the internal table TOP [Page 587] using operation COLOP.

There are no entries left in TIP once a processing step is complete. All entries relevant to further processing are in table TOP. They are renamed at the end of processing and form the new TIP.

At the end of day processing, time balances are formed on the basis of the TIP entries and time wage types are selected. They are cumulated according to the time type of the TIP entry in the time types which record the balances in table TES [Page 591]. Time wage types are selected according to the processing type [Ext.] of the TIP entries.

Certain processing steps in time evaluation are not based on the existing TIP entries, but on general status information (employee at work, daily work schedule OFF, and so on). In this way, time types [Ext.] can be filled for purely statistical purposes, independently of the TIP entries. This allows the number of attendance days to be updated, for example. The results of this processing step are entered in table TES.

Further internal tables in time evaluation

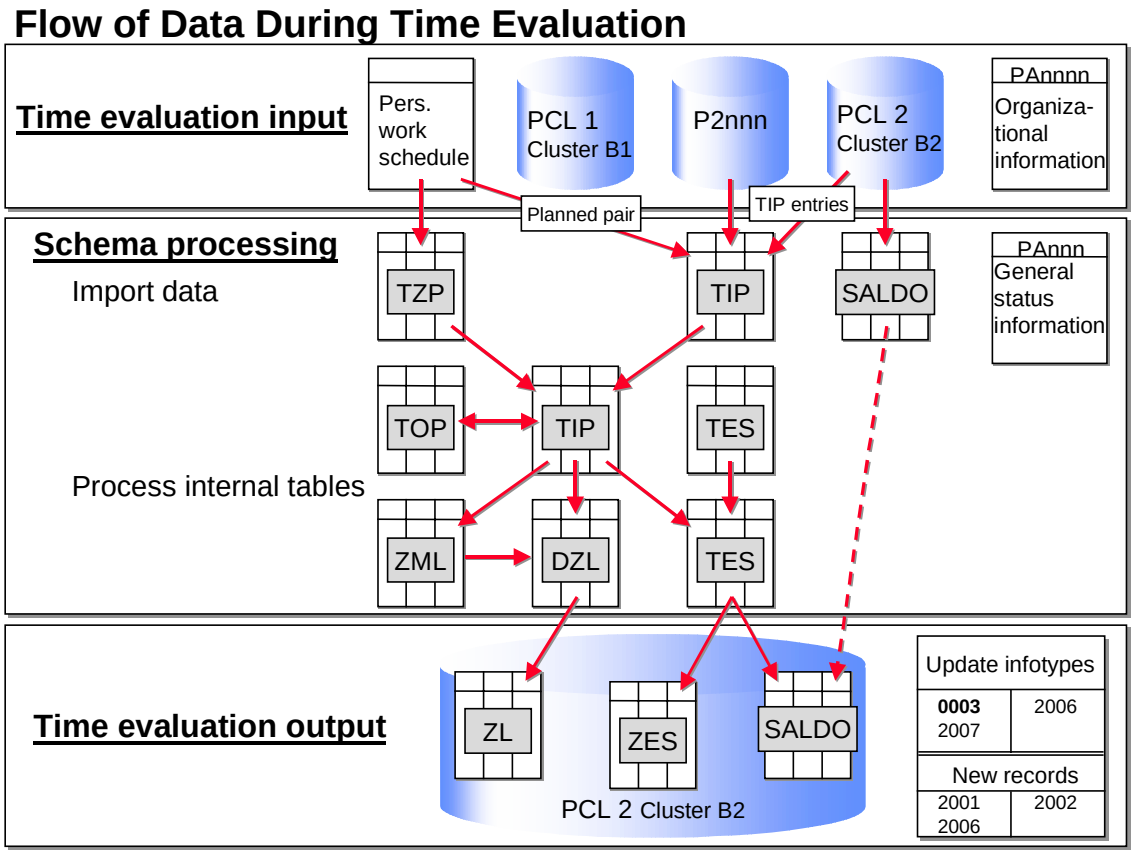
- An employee's time balances are maintained in *table TES*. They can be changed using operations.
- *Table* TZP [Page 588] contains the planned specifications for the day being evaluated from the employee's personal work schedule.
- The time wage types determined for the employee are collected for the overtime wage types in table DZL [Page 595] or table ZML [Page 593] and proceed from there for further processing.
- The employee's cumulated time balances are listed in *table SALDO*.
- The messages generated in time evaluation are stored in *table FEHLER*. These include errors, information messages and notes.

Data Flow in Schema Processing

Purpose

In the course of time evaluation, the recorded times, status information, and any results that have already been calculated are imported and processed in the sequence specified in the schema. The results of processing are saved on the database.

Process Flow



The following sections contain information on the blocks depicted in the graphic:

- Time Evaluation: Input [Page 421]
- Processing Using Internal Tables [Page 449]
- Time Evaluation: Output [Page 423]

Schemas and Functions in Time Evaluation

Definition

The individual steps in schema processing are performed in a specific order in time evaluation. The sequence of steps is specified in Customizing tables, and is referred to as a *schema*. It determines the order in which the processing steps are executed in time evaluation.

You can customize the schemas in order to valuate the recorded time data according to the specific requirements of your company.

To maintain schemas, choose *Human resources → Time management → Administration → Tools → Maintain schema.* For more information on schema maintenance, see *PA - Tools*.

The standard system offers a selection of schemas, which all cater for different time evaluation requirements. If you want to customize schemas, we recommend that you use a standard schema as a reference.

Structure

The individual processing steps which are defined in a schema and processed in the given sequence are called *functions*.

Functions supply the data required for processing, process the data and write it to internal tables [Page 582]. The processing step performed by a function can be controlled or refined by specifying parameters.

Functions can perform a variety of different tasks. The following types of functions exist:

Functions that set a switch

These functions set “switches” when a schema is generated. They are not called again while the current schema is being executed. Functions which set switches are the only functions which can come at any position within the schema.

Please note that functions which set switches cannot be processed via an IF-ELSE-ENDIF query.

Function type	Function	Task
Function that sets a switch	*OPPT*	*Function OPPT is used to determine whether or not the administrator responsible receives a mail if messages have been generated in time evaluation.*

Switches that have been set by functions are listed in the time evaluation log. To view them, choose *General data → Schema xx → Options → Functions of time evaluation.*

Functions that import data

These functions enter data in the internal time evaluation tables (for example, TIP, TZP). This may be the employee’s personal work schedule, infotype records or time pairs from the pair table.

Function type	Function	Task
Function that imports data	P2001	Function P2001 is used in the standard schemas to enter the absences for the day being evaluated in the internal table TIP [Page 583], where they can be referenced for further processing.

Functions that call a personnel calculation rule

If a function is not adequate for processing, it can call a personnel calculation rule to trigger a more detailed form of processing.

Functions for processing status information

Maximum: You want no more than 10 days to be reduced per accrual period for a particular absence type. In general, these functions

- Change time types and enter them in table TES or
- Query general status information (public holiday, name of valid work schedule, and so on.).

Function type	Function	Task
Function that calls a personnel calculation rule	*ACTIO*	*Function ACTIO calls a personnel calculation rule, which performs processing regardless of the existence of entries in table TIP.*

Functions that process internal tables line by line

These functions call personnel calculation rules in which the contents of internal tables are edited line by line according to the specified rules.

Function type	Function	Task
Function that processes a table	*PTIP*	*Function PTIP calls a personnel calculation rule, which edits the contents of table TIP record by record according to the specified rules.*

Functions with fixed processing

These functions do not call personnel calculation rules, but carry out specific tasks within time evaluation.

Function type	Function	Task
Function with fixed processing	*PBRKS*	*Function PBRKS reads the break specifications in the daily work schedule.*

The following examples provide a more detailed explanation of functions:

Function ACTIO

Fct	Par1	Par2	Par3	Par4	P	D	Text
ACTIO	TE20						Check for day with errors

Personnel calculation rule TE20 is called. It performs a check on the basis of the *Zero planned working hours* field in the *Daily Work Schedules* table (T550A) to determine whether the employee was scheduled to work on this day, for example.

Schemas and Functions in Time Evaluation

Function PTIP

Fct	Par1	Par2	Par3	Par4	P	D	Text
PTIP	TO13	GEN					Check maximum daily working time

All TIP entries are made accessible. Personnel calculation rule TO13 is called for each TIP entry, and the maximum daily working time in the daily work schedule or the value in constant TGMAX is evaluated. If the employee has exceeded the maximum working time, the excess times are assigned a special indicator so that no wage types are formed for them.

TIP entries which are relevant to further processing must be entered in the internal table TOP [Page 587] using function COLOP.

Stages of Schema Processing

Definition

The various steps of schema processing are stored in a schema. The schema is structured in three blocks, distinguished from each other by different indicators.

Only certain processing steps can be performed in each of these blocks.

When you customize the schema, please make sure that you assign the respective processing steps to the correct block.

Structure

Before day processing	BINI Initialization EINI	*This block is usually processed only once for each employee and evaluation, regardless of the number of days to be accounted*
Day processing	BDAY Evaluate data each day EDAY	*This block is processed once for each employee and each day*
After day processing	BEND Final processing EEND	*This block is processed only once for each employee and evaluation, regardless of the number of days to be accounted*

Before day processing

Initialization for each employee

The initialization block is used to control the employee groupings that time evaluation uses to access tables during processing. If a table entry is required during schema processing, the system only chooses table entries which correspond to the grouping determined.

Initialization is generally performed once only, regardless of the number of days being evaluated. The exception is if an employee was subject to an organizational reassignment within the period being evaluated (for example, change of cost center, personnel area and so on). In this case, initialization is performed for each relevant period.

Employee XY's time data is evaluated from the period from September 30, 1996, through October 2, 1996. The employee is assigned to a new employee subgroup as of October 1, 1996.

In this case, initialization is effected for September 30, 1996, and for October 1 through October 2, 1996. The time evaluation driver can access the table entries according to the employee's organizational assignment on each individual day.

Stages of Schema Processing

The initialization is effected in the standard schemas via function MOD, which calls personnel calculation rule MODT if clock times are recorded, and personnel calculation rule TMON if time data is recorded without clock times (that is, specifying a number of hours only).

Day processing

Evaluation of data for each employee and day

The day processing block is used to evaluate employees' time data on a day-to-day basis. Time evaluation determines bonuses, updates time accounts, and checks working time provisions, for example.

Final processing

Update leave balance

Export evaluation results

The final processing block is used to perform checks at the end of the period if each day in the period has been evaluated without errors. The results are saved once processing is complete.

You can only change tables SALDO and ZL in the final processing block. Final processing is run only once for each employee and evaluation run. You should therefore only make changes to these tables once the end of the processing period has been reached. If you make changes earlier, you will not be able to run a recalculation for the evaluation.

Personnel Calculation Rules and Operations in Time Evaluation

Definition

Personnel calculation rules allow more detailed processing in time evaluation and are called via specific functions. They are stored in a control table, as are schemas, and can be created and changed when the system is customized.

Operations are the basic modules that form personnel calculation rules.

Structure

Personnel calculation rules

A *personnel calculation rule* is a statement which you can use to check conditions and perform individual actions accordingly.

To maintain personnel calculation rules, choose *Human resources* → T*ime management* → *Administration* → *Tools* → *Maintain personnel calculation rules.* For more information on maintaining personnel calculation rules, see Editor for Personnel Calculation Rules [Ext.].

Data processed using personnel calculation rules is

- Transferred by the function that called the rule, or
- Is available regardless of the function used to call the rule, for example, general status data for the employee.

Personnel calculation rules are structured like decision trees.

Operations

Operations are the basic modules that form personnel calculation rules. They can change data and values in tables and/or determine the course of processing. Common types of operations are:

- Decision operations
- Operations that initiate one or more actions
- Branch operations

Decision operations

Decision operations control further processing. The operation queries conditions, which can be answered with, for example,

- Y (yes) or N (No)
- The name of the daily work schedule
- A time type

Personnel Calculation Rules and Operations in Time Evaluation

. The different processing steps are represented in a *decision tree*. When each decision is made, the variable key is extended with the appropriate specification (answer). Further processing then takes place according to the variable key.

The answer in the variable key must always describe the entire process performed. Each outcome of a decision must be described.

A decision operation can be recognized by rule type D (decision) in the line in which it features. The majority of decision operations start with the letter OUT or VAR, for example, operations OUTWP (import work center data) and VARST (import general fields).

Operations that initiate one or more actions

These include operations used for:

- Calculations
- Balance formation
- Storing values in tables

These operations allow you to change values of fields in internal tables. Operation COLER, for example, can be used to issue messages. Errors or special situations which have arisen during processing (for example, a non-recorded absence) are written to table FEHLER in the form of messages. The messages can then be processed using the error handling function in time evaluation.

Branch operations

Branch operations allow you to branch from a personnel calculation rule to a sub personnel calculation rule. You may want to do this for two reasons:

- The different answers in a decision tree require the same processing method several times over. This can be represented by creating a sub personnel calculation rule.
- There is not enough space in the variable key to list all answers.

Documentation

The personnel calculation rules, functions and operations which can be used in the standard schemas in time evaluation are documented extensively in the SAP system.

The online help provides information on the individual functions, operations and parameters in the schemas and personnel calculation rules. To access it, place your cursor on the operation or function and choose F1.

The options for customizing personnel calculation rules are illustrated by examples. For more information, see:

- Operations VARST, HRS, and ADDDB [Page 459]
- Operations VARST, HRS and ADDDB Illustrated by means of a Sample Personnel Calculation Rule [Page 462]
- Using Functions and Operations to Edit Work Tables [Page 467]

Operations VARST, HRS, and ADDDB

Definition

Operations VARST, HRS, and ADDDB are used frequently in time evaluation. They illustrate the options available to you for customizing personnel calculation rules.

Structure

Operation VARST

Operation VARST is only used as a decision operation. You can use it to query general status fields (values from tables, infotypes, data on the weekday, and so on) or to enter them in the *variable key* of the personnel calculation rule.

D VARSTPRSNT: Decision operation (indicator D): Was the employee at work on the day in question?
Depending on whether or not there is an attendance record for the day, a Y or an N is entered in the variable key and processing continues accordingly.

Operation HRS

Operation HRS processes the number of hours field. You can use it to enter a particular value in the number of hours field and/or provide values from tables, infotypes, results from tables SALDO, TES, and so on.

If you loop through table TIP, the number of hours field is filled with the number of hours of the TIP entry. If the function used does not loop through table TIP, the number of hours field has the same value as it did previously.

You can use operation HRS as a decision operation or as an operation to perform calculations and form balances.

The operation comprises four parts:

Operation **HRSOYZZZZ**

HRS	**O**	**Y**	**ZZZZZ**
Operation	Operator	Origin indicator of operand	Operand

The *operator* indicates what should happen with the number of hours field. You can use it to, for example:

- Set the number of hours field to the same value as a particular table value
- Deduct the number of hours field from or add it to a time type [Ext.]
- Multiply the number of hours field by a value
- Compare the number of hours field with a value

HRS=0.00: This operation sets the value of the number of hours field to zero.

HRS*0.5: This operation halves the value in the number of hours field.

Operations VARST, HRS, and ADDDB

You can use the *origin indicator of the operand* to make the following available:

- Values from internal tables
- Values from tables
- Values from infotypes
- Employee's age
- System fields
- Result of the last HRS operation

HRS=S: This operation is used to fill the number of hours field with the value of the planned working hours in the daily work schedule.

The *origin indicator of the operand* is not mandatory for operation HRS. You can enter values directly (see above) and use them to redetermine the value in the number of hours field.

You can use a time type, number of hours or a field name as *operands*.

HRS=D0041: Time type 0041 (overtime to be compensated) is read from table TES.

D HRS?CGLMAX: This operation compares the number of hours field - the monthly flextime balance in this case - with constant *flextime maximum* from the *Payroll Constants* table (T511K). Operation HRS is used here as a decision operation.

Operation ADDDB

Operation ADDDB is an operation that is used to store values in table TES. It enters the value of the number of hours field for the specified time type in table TES (day balances).

Operation ADDDB is made up of three parts:

Operation ADDDBxxxxy

Operation	Time type	Control indicator	
ADDDB	xxxxx	T = planned hours	*enters planned working hours from daily work schedule in a time type*
		Z = initialization	*sets time type to zero*
		– = subtraction	*subtracts the value set using operation HRS from the value in the number field of the time type*
		BLANK = Addition	*adds the value set using operation HRS to the value in the number field of the time type*

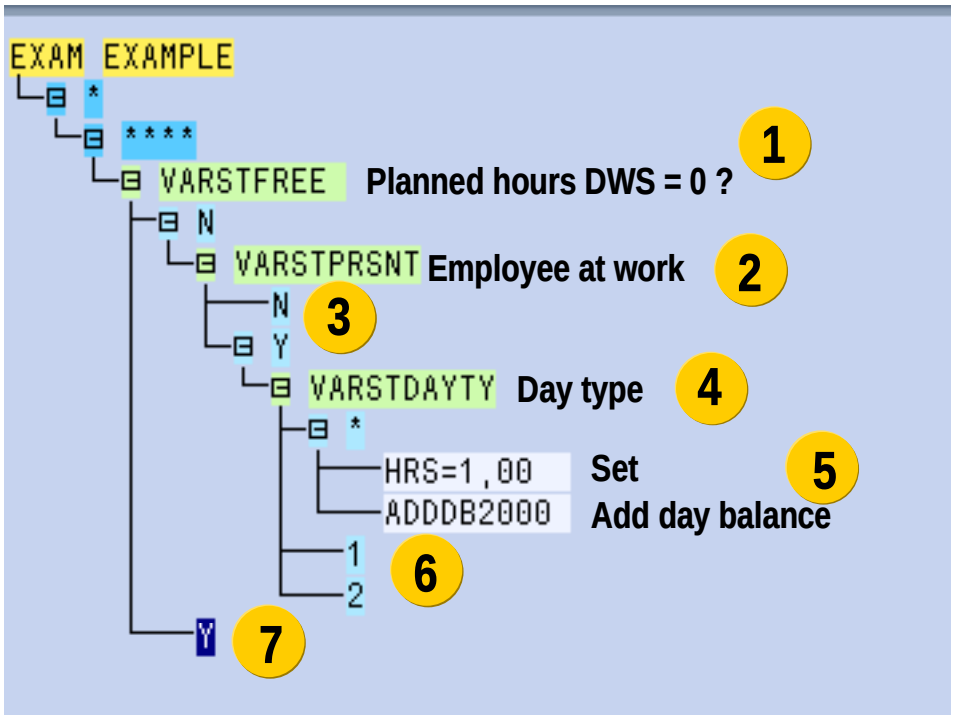
The value of the number of hours field in time type 9999 is 5 hours.

Time type 9999 = 5.00

HRS = 4.00	ADDDB9999Z *The number of hours field of time type 9999 is overwritten with the new value* → 9999 = 4.00
HRS = 4.00	ADDDB9999 *The new value is added to the value in the number of hours field of the time type* → 9999 = 9.00
HRS = 4.00	ADDDB9999- *The new value is subtracted from the value in the number of hours field of the time type* → 9999 = 1.00

Operations VARST, HRS and ADDDB Illustrated By Means of a Sample Personnel Calculation Rule

An employee works each day for an hour longer than is stipulated in his or her collective agreement. The employee is assigned one hour's time credit for each paid workday. The time credit determined is posted to the time type *Compensation Time*.



Explanation

1			D	VARSTFREE		

Decision operation: Does the daily work schedule for this day and employee have zero planned working hours?

2	N		D	VARSTPRSNT		

The daily work schedule has more than zero planned working hours. An N (No) is entered in the variable key. Decision operation: Is the employee at work?

3	N N					

The daily work schedule has more than zero planned working hours. The employee is not at work. He or she does not receive a time credit.

4	N Y		D	VARSTDAYTY		

Operations VARST, HRS and ADDDB Illustrated By Means of a Sample Personnel Calculation Rule

The daily work schedule has more than zero planned working hours. The employee is at work. A Y (Yes) is entered in the variable key. Decision operation: Which day type is assigned to the day being evaluated?

5	N Y			HRS=1.00	ADDDB2000	

Operation HRS retrieves an hour. The hour is added to time type 2000 using operation ADDDB.

The daily work schedule has more than zero planned working hours. The employee is at work. The day type is either 0, BLANK, (work/paid) or 3 (off/special day).

This setting of day types results from the following processing step, which queries day types 1 and 2.

Operation HRS retrieves an hour. The hour is added to time type 2000 using operation ADDDB.

6	N Y 1					
	N Y 2					

The daily work schedule has more than zero planned working hours. The employee is at work. The day being evaluated has day type 1 (off/paid) or day type 2 (off/unpaid). Since the employee does not have to work on these days, he or she is not assigned a time credit. Processing is not carried out.

7	Y					

The daily work schedule has zero planned working hours. The employee does not have to work. He or she does not receive a time credit.

All queried answers must be listed for an operation. Errors can occur if the decision tree is not complete.

You can also give generic answers to a decision tree using an asterisk (*). Please note that the number of asterisks must correspond to the anticipated length of the variable key.

Generic answer to day type query in the variable key: *

Generic answer to time type query in the variable key: ****

Using Function CHECK to Select Employees

Use

When the schema is generated, function CHECK sets a program status which controls the basic functions of time evaluation.

These include:

- Selecting employees for time evaluation
- Importing infotypes
- Setting a retroactive accounting run for payroll
- Time evaluation for future dates

The position of function CHECK in the schema is irrelevant.

Features

Using function CHECK to select employees

Function CHECK plays a special role in selecting employees via time evaluation. It checks whether the employee should be evaluated using the schema according to the *Time Management status,* which is stored for each employee in the *Planned Working Time* infotype (0007).

You are recommended to use Schema TM01 to evaluate time data if you only record exceptions to the work schedule for an employee.

Only employees assigned the *Time Management status* 9 (time evaluation: actual times) are selected in schema TM01. This is achieved using function CHECK, parameter 2 = NEG.

Parameters of function CHECK for selecting employees via the *time evaluation report*:

Parameters	Time Management status
PON	All other than 0
TRC	1 - Time evaluation: actual times
PDC	2 - PDC time evaluation
SRV	8 - External services
NEG	9 - Time evaluation: planned times

You can use function CHECK to select employees if you want to run time evaluation with different schemas.
On the basis of the *Time Management status,* employees can be selected for evaluation using a particular schema, and excluded from evaluation using another schema.

There are two methods of distinguishing employees with different *Time Management statuses* automatically in time evaluation. The following examples illustrate the two methods:

Example: Processing all employees in one time evaluation run

The time data of internal and external employees is evaluated in your company. You use schema TM00 (time evaluation using time events) for your own employees, and schema TM02 (time evaluation for external services) for external employees.

In order to implement different processing methods for internal and external employees in one single time evaluation run, use a main schema which starts time evaluation once daily as a background job.

You branch to two subschemas within the main schema; variants of schemas TM00 and TM02 are used.

These variants are referred to below as *variant TM00* and *variant TM02*.

- A subschema cannot be generated and therefore cannot be executed via *RPTIME00*. The indicator *executable schema* in the schema attributes is not activated in this case.
- Please note when you create subschemas that they must only contain day processing. The processing blocks *Before day processing* and *Final processing* must be located in the main schema.

Insert the following lines in the main schema:

Function	Par	Meaning
CHECK	PON	All employees with a *Time Management status* other than 0 are selected
IF	POS	If the employee is assigned *Time Management status* 1 or 2
COPY	TM00	Branch to the subschema *variant TM00*
ELSE		If this condition is not fulfilled,
COPY	TM02	Branch to the subschema *variant TM02*
ENDIF		End of IF query

Processing employees in several time evaluation runs

Your company evaluates time data for employees for whom actual times are recorded and also for employees for whom only exceptions to the work schedule are recorded. The latter employees' time data should only be evaluated once a week, the others' daily. Use variants of schemas TM00 and TM01 for time evaluation.

You cannot use this example unless your internal employees are assigned *Time Management status* 1 or 2.

The following line is inserted in the variant of schema TM00:

Schema *Variant TM00*

Using Function CHECK to Select Employees

Function	Par	Meaning
CHECK	TRC	Only employees assigned *Time Management status* 1 are selected
or		
CHECK	PDC	Only employees assigned *Time Management status* 2 are selected

The following line is inserted in the variant of schema TM01 (time evaluation for exceptions to the work schedule):

Schema *Variant TM01*

Function	Par	Meaning
CHECK	NEG	Only employees assigned *Time Management status* 9 are selected

In the *Schedule time evaluation* step in the Implementation Guide, you schedule two background jobs for time evaluation: This specifies that time evaluation is run daily using the schema variant TM00, and weekly using the schema variant TM01.

Using Functions and Operations to Edit Work Tables

Use

There are specific functions and operations available to edit work tables. The name of the function or operation indicates the purpose that it serves.

Features

Functions that edit internal tables line by line

Table	Function	Description
TIP	PTIP	Process Internal Table TIP
	RTIP	Read Internal Table TIP
DZL	PZL	Process Table ZL
ZML	POVT	Process Overtime Table
TES	PDB	Process Daily Balance Table
SALDO	PMB	Process Monthly Balance Table
ERT	PERT	Process Error Table

The functions listed call a personnel calculation rule in which the entries in the specified table are processed/read line by line according to the rules stipulated.

You can use the following operations within personnel calculation rules to enter the results of processing in internal tables:

Operations that make new entries in internal tables

Table	Operation	Description
TIP	COLOP	Collect in Internal Table TOP
DZL	ADDZL	Add to Table ZL
ZML	ADDOT	Add to Overtime Table
TES	ADDDB	Add to Daily Balance Table
SALDO	ADDMB	Add to Monthly Balance Table
ERT	COLER	Collect Error

Day Processing of Time Data in Time Evaluation

Use

Time data recorded in *Time Management* contains information on the time of day, duration, and quality of work performed by employees. This information allows, for example, bonuses to be determined, time accounts to be updated and working time regulations on a daily basis.

Day processing of time data is a step in the time evaluation process. It is used to evaluate time data on a daily basis.

Prerequisites

Time data recorded in Time Management or via time recording systems forms the basis for the calculation. You must therefore maintain the following in Customizing or master data:

- Create work schedules
- If you work with time recording devices, you must create the necessary prerequisites
- Assign work schedules to the individual employees using the *Planned Working Time* (0007) infotype
- Create the prerequisites for entering time data records

For more information, see the Implementation Guide (IMG) for Personnel Time Management.

Features

Day processing of time data is one of the three processing blocks that are processed in the course of schema processing.

For more information, see Stages of Schema Processing [Page 455].

Day processing of time data can be subdivided into several process steps, which must be processed in the defined sequence:

1. Provide time data
2. Error checks
3. Determine planned working times
4. Determine overtime
5. Select time wage types
6. Compensate overtime wage types
7. Manage time accounts

How time data is processed within these process steps depends on:

- Whether you record times as a number of hours or as clock times
- Whether you record only exceptions to the work schedule, or also all employee attendance times.

- Whether you use time recording devices

These different requirements of time management are satisfied by the various schemas.

For more information on the special features of individual standard schemas, see: Time Evaluation Schemas [Page 497].

The sections that follow provide a general description of all methods of time recording. Special reference is made to exceptional features of time data processing.

Providing Time Data

Use

Before time evaluation can be run, the schema must first read the most important data. This data is stored in the internal tables of time evaluation: tables TZP [Page 588] and TIP [Page 583].

These tables contain basic data and, if time recording systems are used, time pairs which are formed from time events. Time data that has been entered manually, such as attendances and absences, is also provided.

Features

Time data is supplied in two steps:

1. Planned working time data from the employee's daily work schedule is transferred to table TZP
2. Transfer planned working time data for the day to be evaluated to table TIP

Transfer planned working time data from the daily work schedule to table TZP

The actual times recorded by employees are evaluated on the basis of the planned working time data stored in their personal work schedules.

The planned working time data is determined from the personal daily work schedule that is valid for the employee on the current day. Substitutions that replace the employee's daily work schedule are also taken into account.

Time substitutions are an exception. In this case, the planned working time data for the day to be evaluated is read from the times specified in the *Substitutions* infotype (2003).

Time evaluation can use the data in the relevant daily work schedule or time substitution record to:

- Check whether the employee has observed the start and end times or the minimum daily working time
- Valuate attendance and absence durations
- Take account of break durations

The system generates an entry in table TZP for each time point, for example, start of planned working time, start of break. The system assigns a time identifier, which indicates the type of time, to each entry in the table.

Table TZP			
Time point	**Time identifier (code)**	**Duration of paid break**	**Duration of unpaid break**

00.0000	01 = Overtime (unapproved): Time outside of daily work schedule	0.0000	0.0000
07.0000	02 Fill time	0.0000	0.0000
09.0000	03 Core time	0.0000	0.0000
09.5000	04 Core time break	0.0000	0.25000
10.0000	03 Core time	0.0000	0.0000
11.5000	02 Fill time	0.0000	0.0000
12.0000	05 = Fill time break	0.7500	0.0000
13.5000	02 Fill time	0.0000	0.0000
14.0000	03 Core time	0.0000	0.0000
16.0000	02 Fill time	0.0000	0.0000
18.0000	01 = Overtime (unapproved): Time outside of daily work schedule	0.0000	0.0000

If employees enter actual times at time recording terminals, function P2011 imports the planned data and time events. If time data is entered online, function P2000 imports the planned data.

If you record only the exceptions to the work schedule, an additional planned pair [Ext.] can be transferred to table TIP.

Transfer planned working time data for the day to be evaluated to table TIP

The system imports time data which has been entered manually for the day to be evaluated. Available time infotype records are transferred to the internal table TIP using functions.

Time data can be entered in hours or as clock times.

Provide the day's absences: Table TIP after function P2001 when absences lasting less than one day are entered as clock times:

Start	End	1	P	ID	CT	C	TTyp	B R	E R	C	O	I BP EP	PT	AL	C1	AB	No.
10.2500	19.0000		1		00			01	02		E		01				8.7500
08. 0000	10.2500	0	2		00						A					01	2.2500

Provide the day's absences: Table TIP after function P2001 when absences lasting less than one day are entered as a number of hours:

Start	End	1	P	ID	CT	C	TTyp	BR	ER	C	O	I BP EP	PT	AL	C1	AB	No.
			1		01			01	02		E		01				8.7500
		0	2		00	A					A					01	2.2500

Pair type 2 indicates that this TIP entry is an absence. The AB split indicator refers to entry 01 in table AB (Absences) which contains additional information on the absence.

Providing Time Data

Functions for provision of time data that is entered manually

The following functions can be used to transfer time data which has been entered manually to table TIP:

Function	Use
P2001	Transfer absences to TIP
P2002	Transfer attendances to TIP
P2004	Transfer availabilities to TIP
P2005	Transfer overtime to TIP

1. If you use time recording terminals, overtime is calculated in time evaluation.
2. Function A2003 processes work center substitutions and has the following special features.

   Substitutions which result in a different working time are not imported with function A2003. They are taken into account when the daily work schedule is imported. If a different payment is defined for these substitutions, the related TIP entries are assigned an ALP (alternative payment) split indicator, which describes the type of payment.

   Work center substitutions (based only on a position), on the other hand, do not change the employee's working time, only his or her pay, and are therefore not (yet) taken into account.
   Function A2003 assigns the ALP split indicator to all TIP entries which fall within the period of the work center substitution.

Error Checks in Time Evaluation

Use

When all essential data has been made available in the schema, it is checked for errors in time evaluation.

When you customize time evaluation, you can include messages which refer to specific situations. You can use the operation COLER to output a message within a personnel calculation rule. For more information, see Checking the Results of Time Evaluation [Page 493] .

Features

Daily error checks

Personnel calculation rule TE20 checks whether the employee must be at work on certain days or if he or she may not be at work because of illness, public holiday, leave and so on. An error is issued if the employee is found to be absent without authorization, for example.

The following data is queried in this personnel calculation rule:

- The daily work schedule (OFF?)
- Was the employee at work?
- Has an absence been recorded for the employee?
- Has a full-day absence been recorded?
- Which day type [Ext.] is assigned to the day being evaluated?

The following applies only if you use time recording terminals.

Adjustment of absences

If the employee has absences which last less than one day, the personnel calculation rule TE10 checks whether the absence times coincide with the attendance times before performing *daily error checks*. These are absences which are entered in the *Absences* infotype (2001).

If the absence time does not coincide with the attendance time, the following options are possible:

- Error messages are issued
- Absences are adjusted to the attendance

1. An employee was at work from 8 a.m. to 12 noon. An absence is recorded for him or her from 2 p.m. to 5 p.m..

   Since the system contains no data for the time between 12 noon and 2 p.m., it issues an error message.

2. An employee works from 8 a.m. to 2 p.m. and records an absence lasting from 12 noon to 5 p.m..

   Since the employee is still at work at 2 p.m. (although the absence was generated as of 12 noon), the time pairs in the TIP are adjusted so that the absence begins at 2 p.m.. The system issues a message.

Please note that adjustment of absences is a functionality of time evaluation which does not result in a pay change. The *Absences* infotype (2001) is not updated.

Pair formation error

A pair formation error occurs if an employee forgets to enter a time posting or if he or she is still at work when time events are uploaded.

Personnel calculation rule TE30 checks each time pair to be evaluated for errors by querying the *pair formation status*. If necessary, the system issues messages.

Status BLANK	Correct pair
Status 2	No clock-in entry
Status 3	No clock-out entry *Query*: Is the employee still at work? *Yes*: The end of planned working time is used as the clock-out entry for the time event. Retroactive accounting is performed during the next payroll run. *No*: Error message – No clock-out entry
Status 7	No clock-in entry for off-site work The start time specified in daily work schedule is used to delimit the record. Retroactive accounting is not performed.
Status 8	No clock-out entry for off-site work *Query*: Is the employee expected to return? *Yes*: The end time specified in the daily work schedule is used to delimit the record. A recalculation is performed. *No*: The end time specified in the daily work schedule is used to delimit the record. No recalculation is performed.

Adjustment of daily work schedule tolerances

You can define tolerances for working time begin and end in the *Daily Work Schedule* view (V_T550A). If the time posting falls within the specified tolerance times, the planned working time start and end times are used in the evaluation.

The function DPTOL processes the time pairs taking into account the *start* and *end tolerances* stored in the daily work schedule.

Clock-in tolerance in the *Daily Work Schedule* view (V_T550A):	07:00 - 07:05
Employee clock-in entry	07:03
After function DPTOL:	07.0000

You can also evaluate the start and end of working time by rounding off the first or last time pair of a day. If employee postings are within the working time tolerances, you can use personnel calculation rule TL10 to round the start and end times and, for example, deduct 15 minutes for late arrival.

For more information, see *Time evaluation → Time evaluation with data from the subsystem → Processing time data → Process daily work schedule tolerances* and *→ Round first and last time pair* in the Implementation Guide.

Determining Planned Time and Overtime

Use

When all time data has been imported into the system and checked for errors, it is classified for further evaluation and the planned time and overtime are determined.

Classifying Times

Use

Before the time evaluation program can process the recorded time data to form balances and select time wage types, it must first classify this data on the basis of specific criteria.

Features

In this step of time evaluation, time types [Ext.] and a processing type [Ext.] are assigned to the time pairs. The processing type defines the rules to be used for time wage type selection. The time type describes the meaning of the TIP entry and defines the time balances in which the entry is to be cumulated.

1. Time types

In the standard system, the time type *0050 - productive hours* is the sum of time types:

0010 - Attendances (pair type [Ext.] *1)*

0030 - Attendances entered in infotype 2002

0040 - Overtime

2. Processing types

You can select special overtime wage types for a TIP entry with processing type M (overtime).

There are two different procedures for assigning time types and processing types to TIP entries. Which one you use depends on whether time data is entered as clock times or in hours.

- Time data entered as clock times is compared in time evaluation with the planned working times specified in the daily work schedule.
- If time data is entered in hours, time evaluation processes the TIP entry according to the *Processing type/time type* class assigned to each attendance/absence type in Customizing.

Recording of clock times: Evaluation of time pairs using the planned working times specified in the daily work schedule

If employee time data is entered as clock times, these can be compared with the times specified in the daily work schedule.

The function TIMTP compares the time pairs in table TIP (actual times) with the daily work schedule in table TZP (planned working times) and forms a new time pair in the TIP for each new time in the daily work schedule. Entries in the TIP are compared to the entries in the TZP.

During this comparison, the relative position of time pairs is defined with respect to the daily work schedule (time identifier). The time identifier of the newly formed pairs defines whether the time in question is:

- Core time
- Fill time

Classifying Times

- Overtime (time outside of the daily work schedule)

You can use the time identifier to assign a processing type and time type to each new TIP entry on the basis of the pair type. The function TIMTP reads the entries in the Customizing settings for the *Time Type Determination* view (V_T555Z).

Table TIP [Page 583] ***after function TIMTP***

Start	End	1	P	ID	C	TTyp	BR	ER	C	O	I	B P	EP	PT	AL	C1	A B	No.
07.0000	08.0000		0	02	-	0000												1.0000
08.0000	09.0000	0	2	02	A	0120			A								01	1.0000
09.0000	09.5000	0	2	03	A	0220			A								01	0.5000
09.5000	10.0000	0	2	04		0520			A								01	0.5000
10.0000	10.2500	0	2	03	A	0220			A								01	0.2500 0
10.2500	12.0000		1	03	P	0210	01	02	E					01				1.7500
12.0000	13.5000		1	05	K	0510	01	02	E					01				1.5000
13.5000	14.0000		1	02	P	0110	01	02	E					01				0.5000
14.0000	16.0000		1	03	P	0210	01	02	E					01				2.0000
16.0000	18.0000		1	02	P	0110	01	02	E					01				2.0000
18.0000	19.0000		1	01		0310	01	02	E					01				1.0000

For more information, see *Determine time type determination* under *Time accounting with data from the subsystem* in the Implementation Guide.

Recording of hours: Evaluation of TIP entries using attendance/absence types

If employee time data is entered in hours, it cannot be evaluated on the basis of the planned working times specified in the daily work schedule. This time data must be classified by assigning it a *processing type/time type* class.

The *processing type/time type* class combines attendance and absence types into categories. For example, you can group all absences related to leave in one class and those related to illness in another.

The function TYPES assigns a time type and processing type to each TIP entry according to the pair type and *Processing type/time type class*.

This functions reads the entries in the Customizing settings for the *Processing Type and Time Type acc. to Attendance/Absence Class* view (V_T555Y).

For more information, see *Assign time types and processing types* under *Time evaluation without clock times* in the Implementation Guide.

Processing Breaks in Time Evaluation

Use

Before planned working times and overtime can be determined, you must specify which breaks must be taken into account in time valuation and which percentage of the breaks should be included in the calculations.

Features

Definition of work breaks

There are different ways of storing breaks in the system:

- Breaks with fixed times, for example, 9 a.m. to 9.15 a.m.
- Breaks within a specific time period, for example, a 1 hour break between 12 noon and 2 p.m.
- Dynamic breaks, that is, breaks that start x hours after the start of planned working time

The work break schedule defines when an employee may take his or her breaks, whether a break is paid or unpaid, and if it is paid, which percentage of it is to be paid. How work breaks are to be calculated is specified in the work break schedule, and can be more closely defined in time evaluation.

Importing work breaks using time evaluation

You must first define which breaks the time evaluation program should import. In the standard system, functions P2000 and P2011 import the time framework for breaks.

How work breaks are to be imported can be more closely defined in a personnel calculation rule. For more information, see *Decide which breaks should be imported* in the Implementation Guide.

Evaluating work breaks in time evaluation

Breaks are evaluated in the schema using function PBRKS. You can evaluate different breaks differently by setting the parameters of function PBRKS accordingly.

For more information on the different procedures of break evaluation, see the section entitled *Processing time data* in the Implementation Guide and the online documentation for the function PBRKS.

Unpaid break time is generally deducted; paid breaks are added to the employee's attendance time.

Which procedure is used to evaluate breaks depends on whether attendances are entered as clock times or in hours.

Clock times

If you enter employee time data as clock times, you can use all the above procedures to process breaks. It makes no difference whether attendance times are recorded at time recording terminals or in the *Attendances* infotype (2002).

Processing Breaks in Time Evaluation

1. Breaks whose from/to times are defined in the work break schedule and breaks that are entered when a time substitution is maintained.
2. Breaks whose time framework is defined in the work break schedule.
3. Dynamic breaks defined as *After X number of hours*.

Number of hours

Whether or not you require break evaluation when entering the number of hours depends on which time data you enter. If you enter only the actual number of working hours, you can deactivate break processing in the schema.

If not, you can use two different procedures to evaluate breaks:

- The breaks in the daily work schedule are evaluated only if time data is entered as clock times or for full-day records. Time data that is not entered as clock times is passed on without processing. In this case, parameter 4 of the function PBRKS contains the entry OWTI.
- The work break schedule contains only breaks entered as *After X number of hours*. When breaks are evaluated, the break times are deducted from the number of attendance hours . In this case, parameter 4 of the function PBRKS contains the entry the entry NOTI.

Calculating Overtime in Time Evaluation

Use

When breaks have been evaluated, the actual employee attendance times are available for processing. The planned working times and overtime can be determined from these times.

Features

Overtime is assigned processing type M, planned working times processing type S. Specific wage types for planned working time and overtime can then be selected on the basis of the processing type.

Processing Type	Wage types
M	Overtime wage types
S	Hourly wage earners: Wage types for hourly pay
	Salaried employees: Table T510S generally does not contain rules for selection of wage types for planned working time.

Procedure for calculating overtime

Overtime can be determined in three different ways:

- Processing overtime using the *Overtime* infotype (2005)

  The function P2005 imports the overtime data (number of hours or clock times) from the *Overtime* infotype. They are written directly to TIP and assigned processing type M.

  Overtime entered as clock times may delimit existing TIP time pairs. Overtime entered in hours is appended.

  In the standard system, function P2005 is active only in schema TM01 - *Time evaluation for exceptions to the work schedule.*

  If you use time recording terminals, you should not enter overtime in infotype 2005.

- Determining overtime from clock times

  When using this method to determine overtime, the times outside of the planned working time framework are recognized as overtime. This procedure can be used only if time data is entered as clock times.

- Determining overtime from attendance hours

  Overtime can also be determined from the actual number of attendance hours. Any hours that exceed a set number of attendance hours within a certain time period are assigned processing type M.

This period can be one day, one week or any other period of your choice. You can use constants in table T511K (*Payroll Constants*), the planned working hours in the daily work schedule and so on as comparison values.

Overtime approval

Another factor which must be taken into account when determining overtime is the overtime approval. Here, the system checks if the employee is permitted to work overtime, and if yes, determines the number of hours permitted. This check is performed only if an overtime approval is required.

The following approval procedures can be used:

- Standard overtime approval

  In the case of standard overtime approval, employees do not require a special approval for overtime work. Standard overtime approval can be granted on the basis of the following factors:

  – General overtime approval for all employees using personnel calculation rule TO16.

  – Standard overtime approval, which is based on the daily work schedule. You can grant standard overtime approval by activating the *Automatic overtime* field in table T550A (*Daily Work Schedules*).

  – Standard overtime approval for individual employees based on the *Time Recording Info* infotype (0050). In time evaluation, the value of the *Standard overtime* field in infotype 0050 can be processed with personnel calculation rule TO10.

- Overtime approval for individual employees

  Overtime approvals can be allocated to individual employees using the Attendance Quotas [Page 312] infotype (2007).

  The function GOT compares the attendance quotas from infotype 2007 with the time pairs in table TIP.

Which overtime hours are remunerated (paid and/or compensated) can also depend on the total number of hours within a certain period.

An employee has worked 24 hours of overtime in a particular month. According to the employment contract, he or she is paid only for overtime that exceeds 10 hours. All hours over 20 are credited to the following month.

The employee therefore receives payment for 10 overtime hours, and 4 attendance hours are credited to his or her next month's time account.

This final evaluation of overtime can only be performed at the end of time evaluation during balance formation.

For more information on the different procedures for determining overtime and forming balances, see the sections *Processing time data* → *Overtime calculation* and → *Forming balances* in the Implementation Guide.

For more information on compensating overtime (forming time quotas, selecting time wage types), see the section entitled *Compensate overtime* in the Implementation Guide.

Time Wage Type Selection

Use

In time wage type selection, you use employees' time data to determine the hourly wage and bonuses for overtime, work on a public holiday, and night work.

- You want different time wage types to be selected for work on a public holiday than for work on a workday.
- For up to two hours of overtime you want time wage type Mxxx to be selected in addition to the basic hourly wage. This wage type is valuated with a 25% bonus in comparison with the basic hourly wage.

The monetary valuation of the time wage types determined is performed further on in the payroll process.

Integration

Time wage type selection is a processing step in day processing of time data in Payroll or Time Evaluation. It is called by function GWT (*Generate Wage Types*) in the schema (TC00 *Wage Type Generation International* or TC04 *Wage Type Generation International for Time Evaluation Without Clock Times* for Payroll, or in the standard time evaluation schemas.

Function GWT processes the entries of table T510S (*Time Wage Type Selection)*, which contains the wage types that can be selected and the conditions that must be met for the selection of a wage type.

Prerequisites

You have set up table T510S (*Time Wage Type Selection)* to suit your requirements. This is done in Customizing for *Time Evaluation* or *Payroll.*

For more information, see the Implementation Guide for *Time Evaluation* or *Payroll*.

Features

There are many different regulations governing the selection of time wage types. They are formed when several individual rules in T510S are grouped into a rule group. In this way, you can group together all corporate regulations for your employee groupings.
Each individual rule contains the time wage type to be selected. In time wage type selection, all individual rules in a rule group are run. If even one of the conditions specified in an individual rule is not fulfilled, the time wage type is not selected.

Groupings for time wage type selection

The rule groups for the selection of time wage types are determined according to the *time wage type selection rule group* and the *day grouping for time wage type selection,* which are the key to reading table T510S.

- Whether an employee is an hourly wage earner or a salaried employee, for example, plays an important role in time wage type selection. You can therefore use the *time wage type selection rule group* to group your employees, and set regulations according to the groupings. The *time wage type selection rule group* is independent of the other

organizational groupings in the Human Resources system. It is only used for time wage type selection.

- You can define various rule groups depending on particular factors relating to the day being evaluated (workdays, normal working days, Sundays, public holidays, and so on). You can use the *day grouping for time wage type selection* to distinguish between the rule groups.

  The conditions on the day being evaluated can also be contained in an individual rule.

  For a better system performance, however, it is advisable to create rule groups for the selection of time wage types for certain days. In this case, you specify day-related conditions using the *day grouping for time wage type selection.*

- In day processing, the times are classified according to the information from the work schedule and the recorded time data. The times are assigned an indicator, the *processing type.* Its main use is to differentiate planned working time and overtime. You can also use it for additional criteria.

  Different time wage types can be selected for a rule group dependent on the *processing type.*

Conditions on the time or duration of work performed or on the day being evaluated

For each time wage type/individual rule, you determine conditions on the day being evaluated for the time or duration of work performed. A time wage type is only selected if all the specified criteria are met.

- Conditions on the day

  The time wage type is only selected if the conditions specified for the day being evaluated are met. In this way you can, for example, determine bonuses automatically for work on weekends, on a public holiday, or the day before or after a public holiday.

  Information from the employee's planned working time can also be a condition on the selection of a time wage type. This can depend on whether the day is a workday for the employee, for example, or on the information stored in the daily or period work schedule.

  You want employees who work a rotating shift pattern (early, late, and night shift) to be paid higher bonuses than employees who work a normal shift, provided the circumstances are the same (*Valuation class of the period work schedule)*.

- Conditions on the time

  You can define conditions on the time or duration of work performed to enable bonuses such as overtime, Sunday, or night bonuses to be selected. You can specify that the time wage type is only to be selected within a particular time interval or that it is not selected until a certain number of hours has been worked. You can also specify that a time wage type be chosen only if the employee has already worked a certain number of planned working hours or overtime hours on that day.

Additional options in Customizing

- You can set a time wage type to a fixed value, regardless of the hours worked in one day. This enables you to set up a guaranteed hours regulation, for example.

Time Wage Type Selection

- You can use the exit regulations in time wage type selection to stipulate that no more time wage types be selected after a certain one has been selected.

Time Wage Type Selection in Time Evaluation

Purpose

To select time wage types.

Prerequisites

Functions DAYMO and GWT are in the time evaluation schema.

You have customized table T510S (*Time Wage Type Selection*) to suit your requirements.

Process Flow

1. Initialization

During initialization in the schema (before day processing), function MOD and a personnel calculation rule that has been customized to suit the requirements of the schema are called. In the personnel calculation rule, you use operation MODIF W to specify the *time wage type selection rule group* to be used by time evaluation to check the entries of table T510S for the employee.

2. Set day grouping

Function DAYMO is used to determine the *day grouping for time wage type selection* (working days, Sundays, and public holidays) used to check the entries of table T510S. You must assign a particular entry for each of these cases in the schema.

3. Select time wage types

The TIP entries flagged with processing types are compared individually to the conditions for time wage type selection. Each day has particular features assigned to it, such as public holiday class, day type, and so on. These are checked during time wage type selection.

Time wage types are selected the schema by function GWT. The time wage types are selected according to the processing type of a TIP entry. Function GWT is called twice in the schema:

Time wage type selection for planned working time

In time wage type selection for planned working time, all TIP entries with processing type S are processed using the *Time Wage Type Selection Rule* table.

Function	Parameter 2 (Processing type)	Parameter 3 (Internal table in which data is stored temporarily)
GWT	S	DZL

The individual rules for planned working time are checked for compatibility with data in table TIP [Page 583]. If a rule applies, the corresponding wage type is selected and entered in table DZL.

Time wage type selection for overtime

In time wage type selection for overtime, all TIP entries with processing type M are processed using the *Time Wage Type Selection Rule* table.

Time Wage Type Selection in Time Evaluation

Function	Parameter 2 (Processing type)	Parameter 3 (Internal table in which data is stored temporarily)
GWT	M	ZML

The system checks the rules for overtime for compatibility with data in the TIP. If a rule applies, the corresponding wage type is selected and entered in table ZML [Page 593].

Table ZML is an internal table that stores only overtime wage types. This makes it possible to process overtime wage types separately.

When calculating overtime in time evaluation, you can define whether an employee should be paid for overtime hours or compensated with time off.

For more information on calculating overtime, see the section entitled → *Compensate overtime* in the Implementation Guide.

The entries in the ZML are processed using function POVT (compensate overtime). The *overtime compensation type* defines whether overtime should be remunerated, compensated, or remunerated and compensated proportionately. The system either generates the time type for time off or stores the time wage type in table DZL for Payroll.

Function GWT is used to select time wage types for all absences that are valuated according to the “as if” principle. In the standard system, the absences are assigned processing type S.

For more information on absence valuation, see Absences [Ext.].

Table ZL

When overtime has been calculated, all time wage types of the day are stored in the internal table DZL. When data is exported to Cluster B2, the time wage types in table DZL are moved to table ZL. Table ZL serves as the interface to payroll.

An IFTYP is specified for the selected time wage types. The IFTYP is an indicator for payroll. It describes the origin of the wage type:

IFTYP	Meaning
S	Planned work
M	Overtime
A	Absence

Balance Formation in Time Evaluation

Use

Balances are formed at the end of day processing. Balance formation allows you to, for example,

- Determine an employee's flextime balance
- Update time accounts, which employees can display at time recording terminals
- Create evaluations, for example, time leveling [Page 798]
- Calculate productivity for incentive wages

Features

During balance formation, the values of the time types [Ext.] determined in time evaluation are compressed for each day or period.

The value of the *productive hours* time type is determined from the sum of time type values for:

- Attendances (pair type 1)
- Attendances entered in infotype 2002
- Overtime worked

Forming daily balances

Daily balances are formed by means of a personnel calculation rule, which is called by the function RTIP. The personnel calculation rule defines the time types in which the number of hours of all time types generated in time evaluation is to be cumulated.

The function RTIP reads TIP entries. The personnel calculation rule is processed for a specific time type. The line of the personnel calculation rule used depends on the time type of the TIP entry being processed. You can define time type-specific processing by leaving function RTIP of parameter 2 empty.

Processing results are stored in table TES.

Balance formation using the 'form daily totals in schema TM00' line in personnel calculation rule TR10

*0540	ADDDB*	ADDDB0500	ADDDB0003

The operation ADDDB adds the value in the Number field of the TIP entry for time type 0540 in the table TES to the specified time types. In the above example, the following time types are added to a value in the respective time type:

- Time types 0540 (paid break)
- Time type 0500 (break)
- Time type 0003 (skeleton time)

Balance Formation in Time Evaluation

Forming period balances

Period balances are not formed using personnel calculation rules. They are formed at the end of processing according to what you have defined in table T555A (*Time Types*) in the *Define time types* section of the Implementation Guide. In this table, you can specify whether the time type should be added to the daily balance or to the balance for the time evaluation period [Page 432].

Time types that are to be included in period balances are cumulated in the relevant time type for each period.

Time transfer specifications

Time transfer specifications allow you to change the time balances calculated for individual employees in time evaluation. This means that in exceptional cases you can change the results of time evaluation for individual employees online.

You can use time transfer specifications to transfer hours

- From one time type to another
- To a wage type
- To an absence quota

They can also be used to set fixed values for time types.

- Transfer 3 hours of compensation time to the flextime balance
- Transfer 3 hours from an absence quota to the flextime balance
- Pay an employee for all hours in his or her flextime account in excess of 5

Time balances are entered manually in the *Time Transfer Specifications* infotype (2012). . You can define which time types should be transferred in the *Transferring balances* section of the Implementation Guide.

In the schema, function P2012 imports the time transfer specifications.

Updating results

At the end of day processing, results are updated using the function CUMBT. Balances are transferred from the TES to the ZES (individual daily balances) according to the specifications in the *Time Types* table and cumulated in the SALDO (cumulated balances).

The function CUMBT also updates time wage types. All wage types in the DZL are transferred to the ZL. Table ZL is transferred to payroll by means of an interface.

Quota Maintenance in Time Evaluation

Use

You can use *time evaluation* to check, accrue, and deduct from attendance and absence quotas.

Features

Time evaluation automatically transfers an employee's current attendance and absence quotas from the *Attendance Quotas* (2007) and *Absence Quotas* (2006) infotypes to the tables ANWKONTI (attendance quotas) and ABWKONTI (absence quotas), where they can be accessed for processing.

Checking attendance and absence quotas

Time evaluation checks whether the employee's attendance/absence quota is large enough to cover specific attendance/absence periods. This is useful when time data is entered at time recording terminals and the time evaluation program must check whether existing quotas are sufficient.

- Check overtime approval for overtime calculation [Page 481]
- Check whether the employee has an overtime approval for work on a public holiday

You can use the following operations to store information on absence and attendance quotas in the variable key of a personnel calculation rule:

Absence quotas

- OUTAQ – Decision operation used to enter information on whether the quota can be deducted, the quota type, and the validity of an absence quota into the variable key
- HRS=F – Operation used to enter information from absence quotas into the current number of hours field

Attendance quotas

- OUTPQ – Decision operation used to enter information on whether the quota can be deducted, the quota type, and the validity of an attendance quota into the variable key
- HRS=G – Operation used to enter information from attendance quotas into the current number of hours field

Accruing and deducting quotas

Attendance and absence quotas can be accrued or reduced on the basis of time evaluation results.

This enables you to use function QUOTA to accrue absence entitlements. For more information, see Automatic Accrual of Absence Quotas [Page 321].

Absence quotas

Quota Maintenance in Time Evaluation

- Automatic accrual of leave entitlement according to the amount of time worked
- Accrual of entitlement to a non-working shift for overtime compensation

  Attendance quotas
- Deduction of an overtime approval

You can use functions P2006 and P2007 to call personnel calculation rules that process the contents of tables ABWKONTI / ANWKONTI according to the rules described in the documentation.

If you use function QUOTA to accrue absence quotas, you should not use a personnel calculation rule to update the quotas, since this may cause data inconsistencies.

If you want to use a personnel calculation rule to update an attendance quota, you can use operation COLTQ. It increases the amount of quota **used** by the value specified in the current number of hours field. You can use this operation only together with function P2007.

Outputting Messages

Use

An important task of time evaluation is to inform administrators about errors or results that require their attention. Time evaluation performs the following tasks:

- Checking the consistency of the time data being evaluated

  Time evaluation checks whether the time data has been recorded correctly, and whether it is plausible in relation to working time regulations and other recorded time data.

- Checking working time provisions, company working time regulations, and time accounts

Time evaluation is theoretically able to correct the most frequent error situations, however, it does not do so, because in many situations time administrators should

- Be informed when particular situations occur
- Be informed of particular situations in good time, such as just before value limits are reached for particular time accounts, for example
- Be able to run statistics on frequent working time violations
- Postprocess inconsistent time data once they have discussed it with employees

Time evaluation also draws administrators' attention to "serious" errors that prevent the evaluation of time data. Possible reasons for such errors are errors in pair formation or in Customizing, for example.

For information on errors in pair formation, see Determining Status and Pair Type During Pair Formation [Page 413].

Features

Time evaluation issues messages to inform administrators of error situations that have occurred or of results that require their attention. These messages can then be

- Postprocessed in the *Time Manager's Workplace.* For more information, see Message Processing [Page 873].
- Evaluated with statistics using the *Time Evaluation Messages* report (RPTERL00), for example.

In the standard system, the definition of particular messages is fixed. For other situations, you can specify in Customizing the message to be output by time evaluation. For more information, see Generation of Messages in Day Processing [Page 496].

The messages issued are stored in the following tables:

- Table FEHLER (messages), cluster B1 [Page 597]
- Table ERT (messages), cluster B2 [Page 600]

Grouping Messages

Use

In order to analyze error situations and control postprocessing of messages, you can group messages according to two different criteria.

See also: Message Processing [Page 873]

Features

In Customizing, you can group time evaluation messages in two ways:

Origin of messages for analysis of an error situation

Time evaluation can generate messages at various stages of processing, such as during pair formation or in day processing, for example. The message types are categorized so that the system can identify the origin of the messages. This simplifies the task of analyzing the error situation. The *category of message type* is contained in the key of a message type in the *Time Evaluation Messages* view (V_T555E). The *category of message type* tells you the point in processing at which a message was generated.

For more information, see the Implementation Guide by choosing *Personnel Time Management* → *Time Evaluation* → *Time Evaluation With Clock Times*/*Time Evaluation Without Clock Times* → *Message Output* → *Create Message Descriptions.*

Categories of messages for postprocessing

Messages are grouped into various categories, which

- Enable you to control whether postprocessing is necessary, and if so, which form
- Have a different significance for a correct evaluation result

The categories are as follows:

Termination

Some errors lead to an abnormal termination of the time evaluation program for an employee. This happens if the employee's daily work schedule is not active at the time of the evaluation, for example. The system is then unable to evaluate the employee's time data.

Errors that cause time evaluation to terminate automatically trigger a recalculation as of the day with errors. The errors are listed in message processing until they have been corrected.

Error

Less serious errors do not lead to a termination of time evaluation. They must still be postprocessed, however, to ensure that data is correct. An example of an error is a clock-out posting made after a daily work schedule has ended.

Errors automatically set a recalculation as of the day in question. They remain in message processing until they have been corrected.

Information

Particular situations require the attention of the time data administrator, even though they do not cause and error. Administrators must acknowledge information messages so that they disappear from the message processing function.

Note

Notes appear for information purposes only. They are displayed only once in message processing and are then flagged as completed.

Information messages and notes are not linked to a recalculation, however, they reappear every time a recalculation is triggered for the day to which they refer. If you do not want the messages to reappear, you can set an indicator that prevents this, in Customizing for message types.

Generation of Messages in Day Processing

Use

The standard schemas in *Time Evaluation* cater to many situations in which messages are issued. When you customize the processing steps for *Time Evaluation,* you can incorporate your own checks and issue messages.

You want to check whether an employee has worked the daily minimum number of hours. If not, you want the system to issue a note. To do this, you use the functions for checking value limits (function LIMIT).

You want time data administrators to be informed when unchecked times exist. If time evaluation recognizes via function TIMAP that unchecked subtypes of the *Test Procedures* infotype (0130) exist, you can use operation COLER to issue an informative message.

Features

Generating messages using function LIMIT

Many working time regulations, company agreements, and so on, require value limits to be checked. You can use function LIMIT to process rules for checking the balances determined by time evaluation. Part of the function enables time evaluation to issue a message when a value limit has been reached, for example.

For more information, see the Implementation Guide by choosing *Personnel Time Management* → *Time Evaluation* → *Time Evaluation With Clock Times*/*Time Evaluation Without Clock Times* → *Processing Balances* → *Balance Formation* → *Balance Limits*

Generating messages using operation COLER

You can use personnel calculation rules in time evaluation to identify a number of situations. You can use operation COLER to determine the reaction of time evaluation to certain situations within the decision tree of a personnel calculation rule.

You specify in variable 2 of function COLER the category of message you want to be generated:

COLER E	Termination
COLER F	Error
COLER I	Information
COLER	Note

Time Evaluation Schemas

Definition

The time evaluation schemas evaluate employees' time data using personnel calculation rules.

Use

The time evaluation report (RPTIME00) evaluates employee time data that has been recorded in time infotypes or at time recording terminals. The time data is evaluated for each employee on a daily basis. RPTIME00 initiates processing for each day, which carries out processing steps that depend on the employee and the day being evaluated, and the type of time data that has been recorded. The processing is stored in a schema.

Structure

A schema is made up of a number of different processing steps. It specifies how the steps are to be carried out and in what order. The sequence in which the steps are carried out is highly significant. In a number of cases, the system bases further processing on the values that have been determined in the previous steps.

The standard system supplies schemas that cover a wide range of functions. You can use them as a model and customize them to suit the specific requirements of your company. The three schemas set different requirements of the time data being evaluated, and also follow different evaluation strategies.

Which schema you should use depends on several factors. By choosing a schema, you are not obliged to use one particular method of processing time data. You can copy functions from another standard schema into the one you have chosen to work with, and customize the method of processing as you wish.

Criteria for Selecting a Schema

Which SAP standard schema you use as a model for your company-specific adjustments depends on the method of time data entry and the requirements of time evaluation:

- ***Which time evaluation results are required***

  When choosing a schema, you must decide which results you require from the time evaluation program.

  Time evaluation with the *time evaluation driver RPTIME00* allows you to form time wage types and time balances on a daily basis and manage time quotas.

  Employee time data can also be evaluated in HR payroll. Evaluation is carried out during the payroll run for the payroll area. The *payroll driver RPCALCx00* can generate the time wage types which are used to calculate gross wages.
  The formation of time balances and management of quotas as well as the processing of time data entered at time recording terminals is, however, a special feature of time evaluation using the *time evaluation driver RPTIME00*.

- ***The method of recording time data***

  A number of aspects of time evaluation depend on the way in which the time data is entered in the system. There are two methods:

  – Employees record their actual times at time recording terminals.

  – Employee time data is entered in the Time Management infotypes.

- ***The volume of time data recorded***

  The volume and type of data recorded also influences the method of time evaluation:

  – Recording employees' actual times

    All employee attendance times are recorded, that is, all times spent working for the company.

    You can record actual times at time recording terminals or in the *Attendances* infotype (2002).

  – Recording exceptions to the work schedule

    You record only exceptions to the employee's work schedule in the Time Management infotypes.

- ***The form of the recorded time data***

  You can record employee time data in the R/3 System as clock times and/or as a number of hours.

  The form in which time data is recorded affects the way in which it is processed. This applies in particular to the calculation of planned working time.

- ***How the planned specifications in the daily work schedule are checked***

  SAP also provides a number of options and variants in this area of time evaluation. Whether or not the planned specifications from the employee's daily work schedule are evaluated and referenced to form balances, and how they are evaluated, is decisive for the processing of time data. The following approval procedures can be used:

– The planned specifications are not checked

  The system does not check whether employees have observed the start and end times, daily working hours and so on that are stipulated in their work schedule.

– The start and end times are checked

  When checking the start and end times, the system determines during which hours of the daily work schedule the employee was at work.

  This allows you to check whether the employee was at work during the planned or normal working hours specified in the daily work schedule or during core time. It also helps you recognize overtime that falls before and after the start and end of planned working time.

  By comparing the planned specifications in the daily work schedule to the recorded time data (actual times), the time evaluation report can

  - Form balances (for flextime, for example,)
  - Calculate overtime
  - React appropriately if an employee has not completed his or her planned times.

  The start and end times can only be checked if the employee's actual data is recorded with clock times.

– The attendance hours are checked

  Instead of checking the start and end times, the time evaluation report can also refer to the employee's attendance hours to compare planned and actual specifications. In this case, the system checks whether employees were at work for a certain length of time on a given day or over a given period.

  In this case, the employee's actual times must have been recorded.

- ***How overtime is calculated and approved***

  The standard SAP system offers a number of options and variations for overtime calculation and approval.

  If you enter only the exceptions to the work schedule, you must enter overtime hours in the *Overtime* infotype (2005).

  – Typical overtime rules in cases where clock times are insignificant:

    - The employee should only be paid for overtime that exceeds x number of overtime hours
    - Overtime begins after x number of hours on a particular day and after y number of hours in a particular week
    - Overtime begins after z number of consecutive workdays

  – Approving overtime:

Criteria for Selecting a Schema

- All overtime worked by the employee should be approved
- The employee is not permitted to work more than x hours of overtime over a given period
- The employee is only allowed to work overtime at certain times, for example, between 5 pm and 8 pm
- Overtime should be approved separately for individual employees

The following section provides a short introduction to the five standard schemas in the HR system. Many of the processing steps already mentioned feature in these standard schemas, although they have been developed with emphasis on the following constellations:

- ***Schema TM00: Time evaluation using time events***

  Schema TM00 is primarily used to evaluate the time data of employees who have recorded their actual times at time recording terminals or PDC systems, or in the *Time Events* infotype (2011).

- ***Schema TM01 - Time evaluation for exceptions to the work schedule***

  Schema TM01 has been developed to evaluate the time data of employees for whom only exceptions to the work schedule are recorded. It evaluates time data that has been entered as clock times.

- ***Schema TM02 - Time evaluation for external services processing***

  Schema TM02 is used to evaluate time data of persons who provide external services. For a description of schema TM02, refer to *Concepts and Technical Fundamentals of Integration in Time Management* in the section entitled Integration with Logistics - External Services [Page 702].

- ***Schema TM04 - Time evaluation for data recorded in hours***

  Schema TM04 is primarily used to evaluate time data that has been entered online, either in hours or as clock times. It evaluates the time data of employees who enter only exceptions to the work schedule and of those who record their actual times.

- ***Schema TC00: Wage type generation (international)***

  Schema TC00 is the time evaluation schema of payroll and a subschema of schema xT00 (time data processing in payroll). It is called by the *payroll driver RPCALCx0* during the payroll run. Schema TC00 is used for day processing of time data.

Schema TM00: Time Evaluation Using Time Events

Definition

Schema TM00 is a standard schema, used to evaluate employee time data that has been recorded at time recording terminals and that specifies clock times.

Structure

Schema TM00 is based on the following requirements and objectives:

Schema TM00 forms time balances, time wage types and time quotas. It is processed using the *time evaluation report RPTIME00*.

Schema TM00 processes the personnel time events recorded at the terminals and the time pairs formed from these events. It also imports and processes time data that has been entered online.

When time data is processed with schema TM00, all times to be included in working time (actual times) must be recorded.

Time data must be entered as clock times and must be full-day records.

The main function of schema TM00 is to classify the actual times by comparing them with the planned working time data stipulated in the daily work schedule (planned working time start and end, core times, break times).

When calculating overtime, schema TM00 does not recognize the times before/after the start and end of planned working time as overtime if no approval has been given.

Overtime approval can be granted in individual steps. In schema TM00, you can select from the following checks:

- Attendance approval entered in the *Attendance Quotas* infotype (2007)
- Overtime approval entered in the *Time Recording Information* infotype (0050)
- Overtime approval entered in the *Time Recording Information* infotype (0050)
- Overtime without overtime approval

In all of the above cases, overtime is calculated only:

- After the employee has worked the number of planned working hours specified in the daily work schedule
- Up to the daily maximum working time

This schema contains examples for calculation of daily and weekly overtime.

Schema TM01: Time Evaluation for Deviations from the Work Schedule

Definition

Schema TM01 is a standard schema used to evaluate the time data of employees for whom only deviations from the work schedule are recorded.

Structure

Schema TM01 is based on the following requirements and objectives:

Schema TM01 forms time balances, time wage types and time quotas. It is processed using the *time evaluation report RPTIME00*.

The schema imports and processes time data that has been entered online.

It was developed for evaluation of time data which represent only the exceptions to the work schedule. In this case, the times (actual times) which are not part of working time are recorded.

Time data must be entered as clock times and must be full-day records.

The valuation basis for time evaluation is a planned time pair which is generated according to the specifications in the employee's personal work schedule. The planned time pairs generally correspond to the actual working time. Only attendances and absences entered in infotypes 2002 and 2001 respectively can cause the planned and actual values to differ.

Schema TM01 automatically generates overtime for all recorded attendance times that are outside of the planned working times specified in the daily work schedule. If overtime is entered in the relevant infotype (2005), overtime hours can be approved taking into account overtime breaks.

Schema TM04: Time Evaluation Without Clock Times

Definition

Schema TM04 is a standard schema used to evaluate employee time data that is recorded as a number of hours and not using clock times.

Structure

Schema TM04 is based on the following requirements and objectives:

Schema TM04 forms time balances, time wage types and time quotas. It is processed using the *time evaluation report RPTIME00*.

The schema imports and processes time data that has been entered online. Employee working time is recorded in the *Attendances* infotype (2002).

You can record only exceptions to the work schedule, or all times to be included in the working time (actual times).

Clock times are not required for evaluation of time data. Attendance/absence times must be entered as hours and not as clock-in/out times, and only these hours are evaluated in pair formation. The times specified in the daily work schedule are insignificant. Only entries in hours such as *planned working hours* or *minimum daily working time* are evaluated. Checks are not performed against the maximum daily working time specified in the daily work schedule when planned working time and overtime are calculated.

When exceptions to the work schedule are entered, the planned working hours are generated according to the daily work schedule. Recorded absences and certain attendance times are deducted.

All recorded times are seen as working time when overtime is calculated. The following overtime rules apply:

- Overtime begins after x number of hours per day
- Overtime begins after y number of hours per week
- Overtime begins after z number of consecutive workdays.

In schema TM04, you can store rules which refer to the payroll period. These payroll periods can be different for different employees, and do not have to correspond to the time evaluation period.

Schema TC00: Wage Type Generation (International)

Definition

Schema TC00 is a standard schema used for processing time data in Payroll.

Structure

Schema TC00 is based on the following requirements and objectives:

Schema TC00 forms time wage types. It is processed using the payroll program RPCALCx0 (x=country indicator).

The schema imports and processes time data that has been entered online. It is used for:

- All employees for whom time evaluation is not run
- All days of the payroll period that have not yet been processed in time evaluation when payroll is run

Schema TC00 is used only for day processing of time data. This schema can therefore not be processed using the *time evaluation report RPTIME00*.

Schema TC00 evaluates time data that represents exceptions to the work schedule.

Time data must be entered as clock times and must be full-day records.

The valuation basis for time evaluation is a planned time pair which is generated from the specifications in the daily work schedule. Attendances and absences entered in infotypes 2002 and 2001 respectively can cause the planned and actual values to differ.

Schema TC00 automatically generates overtime for all recorded attendance times that are outside the planned working times specified in the daily work schedule. If overtime is entered in the *Overtime* infotype (2005), overtime hours can be approved while taking into account overtime breaks.

Schema TC00 allows you to change the internal table TIP and thus enter rules like in time evaluation. However, time accounts and time quotas can only be managed in time evaluation.

The functions in *function pool SAPFP51T* are used both for day processing and time evaluation. In this pool, the steps of the schema are processed sequentially.

Processing External Services

Use

You can also use the R/3 *Time Management* (PA-TIM-EVA) component to record and evaluate the working times of external service providers. Data for the R/3 *Materials Management - Purchasing* component (MM-SRV) is recorded with the time data.

This data is processed by the *time evaluation report (RPTIME00)* in schema TM02. TM02 is a standard schema which has been specially customized for the purposes of evaluating external services.

For more information, see External Services [Page 702].

Integration with Payroll

Purpose

You can use this component to provide the R/3 *Payroll* component or a third-party payroll system with information on bonuses and the valuation of hourly and overtime wages. This information is required for the calculation of the gross wage. If time data has been supplied with cost accounting information, Payroll can calculate the resultant personnel costs and transfer them to Cost Accounting.

Implementation Considerations

This component acts as an interface between *Payroll* and *Time Management.* It is supplied with data from *Time Evaluation.* It is a required component if you use the *R/3 Time Management* component in combination with a third-party payroll system.

R/3 Payroll is also able to determine wage types for the calculation of the gross wage. To do this, it uses the time data entered online and the specifications on the planned working times. For more information, see Integration with Time Management [Ext.].

Integration

Possible Integration with Other R/3 Components

Desired Function	Required Component
Determination of the gross wage	Payroll
Allocating work and assigning personnel costs according to the source	Controlling

Features

Supplying R/3 Payroll and a Third-Party Payroll System

- Time evaluation determines wage types. To do this, it compares the recorded time data with the planned hours or the start and end times for the work and calculates break times, times eligible for bonuses, and so on.
- When time evaluation determines overtime and bonus wage types, it automatically takes account of public holidays, weekdays, or conditions on the duration or time of work performed.
- Employee-related information on work performed that needs to be valuated using a different pay scale or bonuses is transferred to payroll. Information on work for a different position can automatically trigger a different payment in payroll.
- Time Evaluation “informs” payroll if subsequent changes are made to wage types for periods that have already been processed. Payroll can then correct the payroll results on the basis of this information.

Integration with R/3 Payroll

- If the payroll is run before the end of the current payroll period, time evaluation cannot supply wage types for the remainder of the period. In this case, Payroll can perform a preliminary projection on the basis of the employees’ planned working times.

Day Processing of Time Data in Payroll

Use

Employee time data recorded in *R/3 Time Management* contains information about any relevant time-based location, duration, and quality of work completed. This information allows you to determine bonuses.

Day processing for time data forms time wage types from the information recorded in *R/3 Time Management* during the payroll run.

Prerequisites

The calculation basis is formed from the time data recorded in *R/3 Time Management* and scheduled employee working times. The following must first be set up in Customizing or in *HR Master Data* maintenance:

- Create work schedules in Customizing
- Assign work schedules to the individual employees using the *Planned Working Time* (0007) infotype
- Complete the prerequisites for recording time data records

For more information, see the Implementation Guide (IMG) for **Personnel Time Management**.

Features

- Time data is processed by the subschema of schema XT00 (*Processing Time Data in Payroll, X = country indicator*). The subschema is called by the function DAYPR (*Day Processing of Time Data*)

  In the standard R/3 System, the time data is processed using the schema TC00 (*Wage Type Generation International*) or TC04 (*International Wage Type Generation for Time Evaluation without Clock Times*) Both schemas record only the exceptions to the daily work schedule. Schema TC00 processes time data recorded in clock time format and are full-day records. Schema TC04 only records time data in hourly format.

- In schema TC00 and TC04 steps and rules are defined for evaluating the time data. The individual processing steps can be modified to suit your specific requirements in Customizing.
- Day processing is carried out during the payroll run. Time data is processed there for each day to be accounted. In the payroll log, you can see the selected time wage types for each day.
- The close relationship between the *Time Management* and *Payroll* component ensures a seamless accounting of time data information, including retroactive accounting at any time when changes are made in the future to the time data.
- For Customizing day processing you can use the functions and operations in *R/3 Time Evaluation*.

See also: Time Wage Type Selection [Page 484]

Sequence of Day Processing/Wage Type Selection

Purpose

You use the process described here to form time wage types from time data information. The time wage types form the basis for calculating the gross wage.

Prerequisites

Function DAYPR (*Day Processing of Time Data)* is contained in schema xT00 (*Processing Time Data in Payroll;* x = country indicator). The subschema to be processed, TC00 (*Wage Type Generation: International*) or TC04 (*Wage Type Generation International for Time Evaluation Without Clock Times)* is entered in parameter 2 of the function.
Schema xT00 includes all of the steps that are required to calculate time-related gross remuneration. It is processed in the payroll run.

You have customized the processing steps of schema TC00 or TC04 to suit your requirements.

Process Flow

1. ***Access day processing***

Function DAYPR is used to access the subschema for day processing of time data (TC00 or TC04). If you use the Time Evaluation component, the time wage types that have already been determined are imported from Cluster B2. For more information, see Integration Between Time Evaluation and Payroll [Page 513].

Actual day processing is in schema TC00 or TC04 between functions BDAY (*Begin Processing Block of Time Evaluation)* and EDAY *End Processing Block of Time Evaluation).* This section is run once per day and per employee.

2. Initialization

Function MOD (*Determine Groupings)* is used in subschema TC00 or TC04 to call personnel calculation rule TMOD. You can use PC rule TMOD to specify the groupings to be used by the payroll driver to access the tables for time type determination and time wage type selection during processing.

Operation MODIF T specifies the *time type determination group* to be used by the payroll driver to access entries from table T555Z (*Time Type Determination*) for the employee.

Operation MODIF W specifies the *time wage type selection group* to be used by the payroll driver to access entries from table T510S (*Time Wage Type Selection*) for the employee.

3. Load time data

All necessary time data is supplied in a sequence of functions. This includes the recorded attendances and absences, and the specifications from the work schedule. The information is entered in the work table TIP (*Day Input*).

Refer to:Processing Using Internal Tables [Page 449] and Supplying Time Data [Page 470]

4. Classify times

In the next step, all entries of table TIP are classified individually. This determines whether the times are planned times or overtime. The TIP entries are then assigned a processing type [Ext.]: M for overtime, or S for planned work.

For detailed information on the classification of times, see:

Classification of Times [Page 477]

Break Processing by Time Evaluation [Page 479]

Overtime Determination by Time Evaluation [Page 481]

These links all relate to Time Evaluation documentation. All information relating to forming and processing time accounts is not relevant to Payroll.

5. Select time wage types

These TIP entry/processing type combinations are then compared individually to the conditions required by time wage type selection. Particular features are assigned to each day, such as public holiday class, day type, and so on. These features are checked during time wage type selection.

Function DAYMO is used to specify the *Day grouping for time wage type selection* (working days, Sundays, and public holidays) to be used to check the entries of table T510S. You must assign a particular entry in the schema for each of these cases.

Time wage type selection is performed in the schema using function GWT (*Generate Wage Types)*. The time wage types are selected on the basis of the processing type of a TIP entry. Function GWT is accessed twice in the schema:

- GWT S: for TIP entries with processing type S (planned work)

- GWT M: for TIP entries with processing type M (overtime)

This procedure enables the time wage types selected for planned times and overtime to be collected in various tables. In this way, you can control the compensation of overtime wage types.

Function GWT also selects time wage types for all absence that are evaluated according to the ‘as if’ principle. In the standard system, the absences are assigned processing type S.

For more information on absence valuation, see Absences [Ext.].

6. Compensate overtime

In overtime compensation, it is specified whether the overtime hours are to be remunerated or compensated with time in lieu.

For more information, see the section *Compensate Overtime* in the Implementation Guide for Payroll.

7. Store results

Function CUMBT (*Cumulate Interim Results)* is used to store the results of day processing in the results tables. The required time types for all days in the payroll period are now in table ZL. If the time data was recorded together with information on cost assignment or on a different payment, ZL still contains pointers to tables C1 and ALP from Cluster B2.

Result

The time wage types are transferred from ZL to work table IT in Payroll. They are now available for monetary valuation.

Integration Between Time Evaluation and Payroll

Use

The *integration between time evaluation and payroll* allows the *Payroll* component access to time wage types determined by time evaluation for the determination of the gross wage.

Features

- The time wage types determined by time evaluation in tables ZL, ALP, and C1 (Cluster B2) represent the interface between time evaluation and payroll.

  Table ZL: contains the time wage types

  Table C1: contains the data relevant for cost assignment

  Table ALP: contains the information necessary for a different payment

- Function IMPRT B2 imports the time wage types determined by time evaluation from Cluster B2 to payroll, and valuates them. However, the payroll is often run before the end of the payroll period, which means that time evaluation cannot provide time wage types for all days in the period.

  You run the payroll on the fifteenth day of the month. Time evaluation has processed the time data up to and including the fourteenth. For the rest of the month, the employees are to be paid as if they had worked according to their planned working times, combined with existing attendances and/or absences, if applicable.

- Payroll performs a projection according to schema TC00 or TC04 for the days in the payroll run that have not yet been processed by time evaluation.

- The automatic retroactive accounting recognition guarantees that the time data is accounted without gaps. Any differences between the projection and the results determined at the end of the payroll run are balanced out in the following period by a retroactive accounting run.

  To do this, payroll sets the date as a retroactive accounting indicator in the *Earliest MD change* field in the *Payroll Status* infotype (0003). The prerequisite is that the employee takes part in time evaluation (*Time Management status* other than 0).

- If time infotypes are created or changed for a payroll period that has already been accounted, time recording or time evaluation sets a retroactive accounting indicator for the corresponding date for payroll in the *Earliest MD change* field in the *Payroll Status* infotype (0003). The prerequisites for this are that

- The time infotypes concerned are flagged as relevant to retroactive accounting for time evaluation or payroll

- Function CHECK (*General Checks Before Evaluations/Status Determination)* is in the time evaluation schema with parameter RPR (Recalculation Payroll)

Supplying a Third-Party Payroll System

Use

Table ZL also serves as the interface between time evaluation and payroll if you use a third-party payroll system. The time wage types generated from attendances and absences are relevant to the third-party payroll system.

Features

You can use report *RPTEZL00 (Supply Third-Party Payroll System)* to download the data for the required period from table ZL, Cluster B2.

The system writes the wage types formed in time evaluation to a sequential dataset which can be read by the third-party payroll system.

Recalculations

If it is necessary to perform a recalculation in time evaluation, the wage types must also be corrected accordingly on the sequential dataset. The dataset is not entirely redefined for this purpose; only the differences are formed.

This is done by assigning the suffix 2 to the entries that have already been saved to Cluster B2.

Time Statement Form

Purpose

You can use the *Time Statement Form* component to present the results determined by time evaluation in a clear layout. The time statement is an overview of an employee's time accounts and time wage types. It is used by time data administrators as a monitoring tool. It can also be sent to employees for information purposes.

Implementation Considerations

Sample forms that represent the most important views of the dataset are supplied in the standard system. You can use them as templates for customer-specific forms.

Features

- Time data and the time balances and wage types formed by time evaluation are output on a daily basis.
- You can display compressed views of the results, such as weekly totals and summarized time wage types.
- Time data administrators can branch from the list screen to the time data records to obtain detailed information.
- You can add a letterhead to the form to send time statements in the mail. Alternatively, you can allow employees to access information on the time statement in the Internet/intranet in the Employee Self-Service application.

Constraints

The time statement is only available for periods that have already been evaluated in Time Evaluation.

The Time Statement (Report RPTEDT00)

Use

Report RPTEDT00 creates an overview of the results determined by time evaluation, for example, an overview of time balances and time wage types for each employee. You can use the report to check the time evaluation results, for example, or to send time statements to employees. Employees can use the self-service application for the time statement to view the current status of their time balances and time wage types in the Internet or intranet.

Integration

You have the option of outputting the time statement at the same time as the time evaluation report (RPTIME00). To do this, enter a variant in the *Time statement variant* field in the RPTIME00 selection screen. After time evaluation has run, you can display the time statement by choosing *Display form*. To print the form, choose *Display* → *Print*.

Prerequisites

- Before a time statement can be created, the time data of the selected employees must be evaluated by time evaluation (RPTIME00), that is, the time data must be stored in cluster B2 [Page 599]. The time statement is only output for days that have already been evaluated. This may also include days in the future that have been evaluated provisionally.
- In the selection screen, you can specify which form you want to use for the time statement. You can enter a standard form, or a form that you have created in Customizing. If you form customer-specific time balances and wage types in time evaluation, you are recommended to display them on a customized form.
- Sample forms that represent the most important views of the dataset are supplied in the standard system. You can use them as templates for customer-specific forms. The following forms are provided in the standard system:

TF00	Day-by-day list of principal time balances
TF01	Day-by-day list of principal time balances, header with address, additional information
TF02	Day-by-day list of principal time balances, header with address, additional information in a detailed data display
TFL1	Overview list of cumulated time balances
TFL2	Overview list of the cumulated time balances. Form is only printed under particular conditions. For example, the flextime surplus or deficit is only printed if it is < 0. The conditions can be specified in Customizing.  Only balances of employees with more than 15 hours of excess flextime should be printed.

Features

- Time data and the time balances and wage types formed by time evaluation are output on a daily basis. If you create the time statement for an entire period that has already been accounted, you obtain an overview of the balances calculated for the evaluated period, in addition to the daily balances.

  Please note that the total of daily balances and the balances for the period can be different, depending on period-end processing. This is the case if certain balances are transferred at the end of a period (for example, the flextime balance is converted to overtime).

- You can also output a time statement for periods for which time evaluation triggers a recalculation. The earliest recalculation date for the time statement form defines the first date for which the time statement form is output.

  See also: Setting the Earliest Recalculation Date for the Time Statement Form [Page 520]

- You can also output a time statement for employees who have errors in time evaluation.
- You can branch from the list screen to the time data records to obtain detailed information.
- You can display compressed views of the results, such as weekly totals and summarized time wage types (that is, a time wage type only appears once for each day on the time statement).
- You can add a letterhead to the form so that you can send time statements to your employees. Alternatively, you can allow employees to access information on the time statement in the Internet/intranet in the Employee Self-Service application.

  See also: Internet Time Statement (PA-TIM-EVA Time Statements) [Ext.]

- You can specify an output language for the time statement. For example, if you choose *Employee's lang.*, the time statement is displayed in the employee's language.
- You can use SAP enhancement HRPTIM04 to modify information from tables in cluster B2 before the time statement is output. You may want to do this if you only want to output one time pair each day, for example.

Activities

To obtain detailed information on time data records:

1. In the selection screen, activate the *Branch to time data info* field (under *Parameters for time statement).*
2. Choose *Execute.*

   In the time statement, single results for which detailed information is available are indicated by a magnifying glass icon.

3. Select a line for which you want to view detailed information, and choose *Choose.*

Create a Time Statement

Use

You can use the *time statement* function in the *Time Management pool* to print an overview of the time balances calculated for individual employees in time evaluation. You can also create time statement forms for specific employees, if required.

If this report is to generate accurate data, the *time evaluation report* (RPTIME00) must have been run without errors for the employee and period in question.

The time statement form can be customized in line with customer-specific requirements. The format and content of what is printed on the time form depends on the settings made when the system was customized.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

   You can also access the *time statement* report via the *reporting tree for Time Management*. For an explanation of the report selection screen, see *The Report Selection Screen* in the Personnel Administration documentation.

2. Select [Page 555] the employees for whom you want to create a time statement form. Choose the *time statement* function.

   The *Time Statement Form* screen appears. This displays the employee's time balances for the selected period.

   If you create the time statement form for an entire period that has already been accounted, you obtain an overview of the balances calculated for the accounted period, in addition to the daily balances.

   Please note that the total of daily balances and the balances for the period can be different, depending on period-end processing. This is the case if certain balances are transferred at the end of a period (for example, the flextime balance is converted to overtime at the end of the period).

3. Check the time events or time data that form the basis for the daily balances.

   Individual results that can be checked in greater depth are flagged with a special sign. Place the cursor on the result and select *Choose*. The display mode for the corresponding infotype appears.

4. Print the time statement form, if required.

   You can print the time statement form by choosing *List* → *Print,* or save it to a file via *List* → *Download.*

Result

You have created a time statement form for an employee.

Setting the Earliest Recalculation Date for the Time Statement Form

Use

The earliest recalculation date for the time statement form defines the first date for which the time statement form should be output.

You only need to maintain this date if you use the functionality of the *Time Statement Form* report, which lists all recalculated data.

If the *Print recalculation* parameter is activated when you start the *Time Statement Form* report, the system also displays the data for periods that were recalculated in time evaluation, regardless of the selected period.

By defining the *Earliest Recalculation Date for the Time Statement Form*, you can:

- Display data for the recalculation form for a specific single period
- Limit the quantity of data to be displayed.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Current settings*
2. Choose *Set earliest recalculation date for time statement*.

   Place the cursor on the icon and choose *Choose*. The *Earliest recalculation dates for control record* view appears.
3. Enter an appropriate date in the *Earliest recalculation date* field.

   It is April 4,1996. You have just created time statement forms for all reevaluated data.

   Enter April 1, 1996 in the *Earliest recalculation date* field.
4. Save your entries.

Result

You have defined the earliest recalculation date for the time statement form. Recalculation forms are displayed only back to this date.

The Form Editor (PT-EV-FO)

Definition

The Time Management form editor is a Customizing tool that you can use to create forms for displaying the results of time evaluation.

Use

You can create the following forms with the form editor:

- Time statements for your employees: You can display the time statements online in the SAP system or in an intranet application, or you can send printed statements to your employees.
- Totals overviews: Administrators can use this form to gain an overview of the status of particular balances for multiple employees.

Structure

Graphical user interface

The Time Management form editor's graphical user interface provides you with a clear overview of the form details.
You determine the layout of the form in *windows.* This display closely resembles the subsequent layout of the form, and the printed version. When you enter text elements and table fields in the screen, it is as if you are writing directly onto the form.

Form classes

There are two form classes for the Time Management form editor:

- Form class TEDT: Creating time statements
- Form class TELU: Creating time totals overviews

Country-specific forms and language versions

The layout of addresses and the display of wage types make forms country-specific. You can create several language versions of one form to provide the time statement to your employees in their native language.

Client-specific forms

You can create different forms for each client in your SAP system.

Integration

The Time Management form editor is used only for formatting the results of time evaluation. To create other Human Resources forms, use, for example, the HR Form Editor [Ext.] .

Sub-Objects of the Time Management Form Editor

Definition

The Time Management form editor is made up of several sub-objects.

Structure/sub-objects

Attributes

The attributes of the time statement form contain general status information. You can specify the person responsible for the form, for example, and see the number of lines and columns in the form.

You specify the form class to which a form belongs. For forms of class TELU, you can enter the name of the corresponding TEDT form.
This function allows time data administrators to double-click the output list to branch from a TELU form to a TEDT form if they want to obtain detailed information on an employee.

Form layout

You create the layout for the time statement or totals overview in two windows:

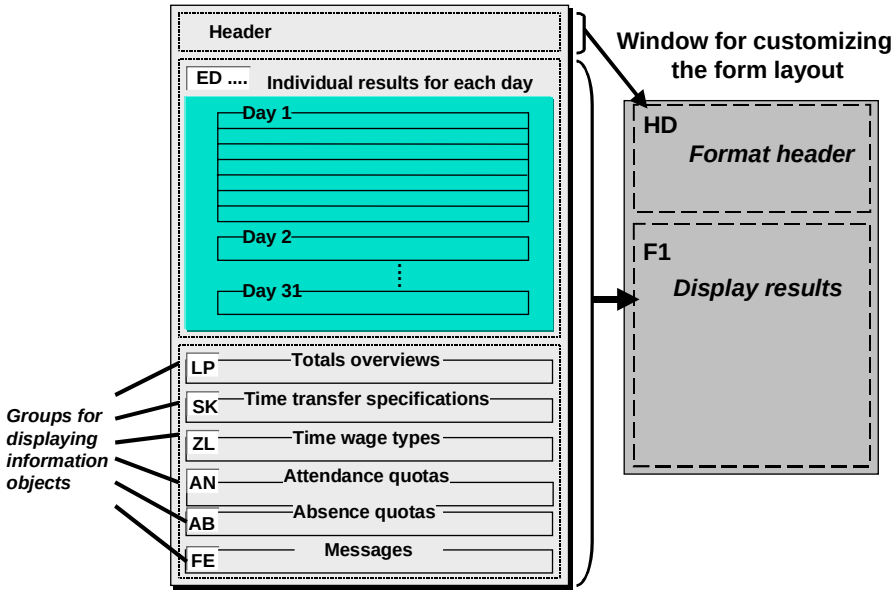
- In window HD, you set up the form header. General data such as the employee's name, address, personnel area, cost center, and so on, is maintained in the header.

  The header is output once for each page of the time statement. Unlike window F1, the header always has the number of lines you have specified.

- In window F1, you create the information objects that are read from Cluster B2 when report RPTEDT00 is started. The information objects contain current employee time data. Groups have been defined for the different business objects. You create single results per day, totals overviews, and so on, in the groups.

  See also: Groups for Displaying Information [Page 528]

Form Layout



Totals

You can display summarized time balances or time wage types. For more information, see Displaying Totals for Time Balances and Wage Types [Page 545]

Text modules

If you want to display specific texts according to variables such as the date, day evaluated, and so on, you can create text conversions for a field in the form. For more information, see Text Conversions [Page 549] .

Documentation

You can create client-specific documentation for each form you have created or modified. You use HR documentation to document forms. To edit the documentation in the *form editor*, choose *Documentation → Change.*

Creating a Time Management Form

Prerequisites

Given the complexity of the Time Management forms, we recommend that you always copy an existing sample form, then modify it to suit your requirements.

For an overview of the standard forms, see The Time Statement (RPTEDT00) [Page 801]

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Copy an SAP sample form or a form you have created.

   For more information on how to copy forms, see Copying a Time Management Form [Page 525]
3. Choose *Attributes* → *Change,* and maintain the attributes of the form. Enter the person responsible, the form class, and so on, and save your entries.
4. Choose *Form layout* → *Change*.
5. Enter the language in which you want to create the form.
6. Double-click in the window HD, and change the form header as if required.

   For more information, see Editing the Time Statement Form [Page 526] .
7. Double-click in the window F1, and change the form groups as required.

   For information on the groups of window F1, see Groups for Displaying Information [Page 528]
8. Choose *Transfer*.
9. Document the form you have created by choosing *Documentation* → *Change* in the initial screen.
10. Create another language version of the form.

    For more information, see Creating Language Versions of the Time Management Form [Page 551].
11. Transport the form to other systems, for example, to your productive clients.

    Choose *Form* → *Transport,* and enter a transport request.

Copying a Time Management Form

Use

When you create a new form, you should always copy an existing form to simplify the task.

You can delete fields or lines that are not required and create new fields in the new form.

Prerequisites

There is an SAP sample form or a customer-specific form that you can use as a template. You can also use the function described here to copy forms from other clients to your client.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Choose *Extras* → *More*. Select an existing form.

   The *Form Data to be Imported* dialog box appears.
3. Enter the data of the form you want to copy.
4. Choose *Continue*.

   The Form Class screen appears.
5. Enter a name for the new form.
6. Select the entry.
7. Choose *Form* → *Copy forms.*

   A log of the copying procedure is displayed.
8. Exit the function.

Editing the Time Statement Form

Use

You use this function to edit the header area (window HD) and the single groups (window F1) of the time statement form.

The use of the editor in windows HD and F1 is generally the same, however you can represent specific requirements in individual groups.

Prerequisites

You have created a form. We recommend that you always copy a sample form.

You should confirm each individual action that you perform during editing by choosing ENTER.

Features

In windows HD and F1, you can perform the following activities:

- Create names and titles
- Convert texts
- Insert, delete, and copy lines
- Insert, delete, and copy fields
- Enter more detailed information on the information to be displayed, for example, the output length, conversion, and so on.
- Set conditions for the display of a field
- Specify the priority in which the information is displayed, that is, how information is overlaid, for the windows for the *day data*

You can use the NEW-PAGE parameter to determine that the time statement begins on a new page for each personnel number.

Notes on Editing the Time Statement Form

This section provides notes and tips to assist you when you edit the time statement form.

Cursor settings

When you edit the form, it is useful if the cursor always remains where you have positioned it. To achieve this, you can set the cursor setting in the R/3 System options:

1. Place the cursor on the colored button at the top right of the R/3 window.
2. Choose *Options.*
3. Choose *Cursor.*
4. Deselect the *Position Cursor to End of Text* field.
5. Choose *OK*.

Possible-entries help

You can only install the graphical, modeless possible-entries help if you use a Microsoft platform and the latest 32-bit SAP GUI.

If you are unable to use the modeless possible-entries help, you can access the table fields for creating single fields using the possible-entries help for the *Table* and *Table fields* fields.

Deactivating the modeless possible-entries help

The advantage of the modeless possible-entries help is that you always have access to help for the single fields when you are editing the form.

If, however, you want to deactivate the modeless possible-entries help, proceed as follows:

1. Choose *Help* → *Settings.*
2. Choose *Possible entries ### Settings.*
3. Under *Display,* select *R/3 dialog (modal).*

Overview: Groups for Displaying Information

Definition

Groups have been defined for the different business objects. You can display single results for each day, totals overviews, or summarized time wage types in the groups.

The information and single fields that you can display in each group is fixed.

Structure

Groups in window F1 are sorted automatically.

In the first line of group E* or P*, use parameter NEW-PAGE to insert a page break between personnel numbers.

Groups for Displaying Information

Group	Meaning
SINGLE RESULTS FOR EACH DAY	
ED	***Single results, Time Management status 1-9*** The data for one day, such as the actual times, day balances, and so on, is displayed in this group. You can display the single results for each day with the date and weekday. You use feature LDAYW to determine the last day of the week. You use table TP to display the time pairs or the number of hours for the following types of time data: • Time pairs (table PT) • Attendances and absences (tables ANWES and AB) • Substitutions (table VERT) • On-call duties (table RUFB) You can use field TP-TEXT to display the text that corresponds to the subtype of the infotype. You can also display time wage types in this group if you want to display balances and time wage types in one line, for example. Otherwise you should use group ZT.
EP	***Single results, Time Management status 1, 2*** See group ED You cannot set priorities in this group; all information is displayed.

EN	***Single results, Time Management status 9*** See group ED You cannot set priorities in this group; all information is displayed.
PD	***Preliminary single results, Time Management status 1-9*** During time evaluation, situations may occur in which a recalculation date is set, but processing continues. After the day with errors, day balances are calculated, which may need to be corrected in the next time evaluation run. If necessary, you can display preliminary day results formed by time evaluation in this group. For more information, see group ED
PP	***Preliminary single results, Time Management status 1, 2*** As in group PD. For more information, see group ED. You cannot set priorities in this group; all information is displayed.
PN	***Preliminary single results, Time Management status 9*** As in group PD. For more information, see group ED. You cannot set priorities in this group; all information is displayed.
ZT	***Daily time wage types*** In this group, you display the time wage types determined for each day. Group ZT is displayed for each day, within the header and footer of groups E*, PP, and PN.  If you devote one line to each time wage type, • You can display cost information from tables C1 and ALP • You can run report RPTEDT00 (time statement) with the *Display compressed wage types* parameter to display the summarized ZL entries for a day. In this case, you cannot display cost information.

ST	***Daily time transfers*** In this group, you display the time transfers performed by time evaluation for each day. Group ST is displayed for each day, within the header and footer of group ED.
WS	***Weekly totals*** In this group, you can display a weekly total of day balances at the end of each calendar week. The balances must have already been displayed in the single results before they are displayed in the weekly total.
TOTALS STATEMENTS and SINGLE STATEMENTS	
LP	***Totals overview*** In this group, you can display period balances for each employee at the end of the time evaluation period. You must have already specified these period balances in Customizing. The time account statuses are read from table SALDO. You can also summarize these balances in other time types. This information is only displayed if you select at least one entire period when you start RPTEDT00 (*Time Statement*). See also: Displaying Totals for Time Balances and Wage Types [Page 545] Use field SCHLW-QUOTAA to display information on an absence quota, and field SCHLW-QUOTAP for information on an attendance quota.
SK	***Time transfers*** In this group, you can display the time transfers from infotype 2012. Note that it is the infotype record that you display. The number field relates to each day of the validity period. For a validity period of several days, the number is therefore not totaled to reflect the real situation. In this case, you should display the time transfers in the *single results for each day* in group ST (daily time transfers).

ZL	***Time wage types*** In this group, you can display the time wage types determined for each day. If you display several time wage types in one line, the results are compressed for each time wage type. See also the note in group ZT.
ZM	***Time wage types*** In this group, you can display cumulated time wage types for the time evaluation period. As in group ZT, • You can display several cumulated time wage types per line without text, or • You can display one time wage type per line with text. You cannot display cost information in this group, since it cannot be cumulated.
AN	***Attendance quotas*** In this group, you can display all relevant information from the *Attendance Quotas* infotype (2007).
AB	***Absence quotas*** In this group, you can display all relevant information from the *Absence Quotas* infotype (2006).
FE	***Time evaluation messages*** In this group, you can display all time evaluation messages for the employees. You can limit the messages according to the error type and error number. You can define conditions [Page 543] for displaying entire lines.
V1, V2 ..	***Variable balances*** In this group, you can display variable balances from table VS of Cluster B2. You can specify these balances. You can define *conditions* for displaying entire lines.
C1, C2 ..	***Cumulated variable balances*** In this group, you can display cumulated variable balances from table VS of Cluster B2. You can define *conditions* for displaying entire lines.
AV	***On-call duties*** In this group, you can display on-call duties. You can define *conditions* for displaying entire lines.

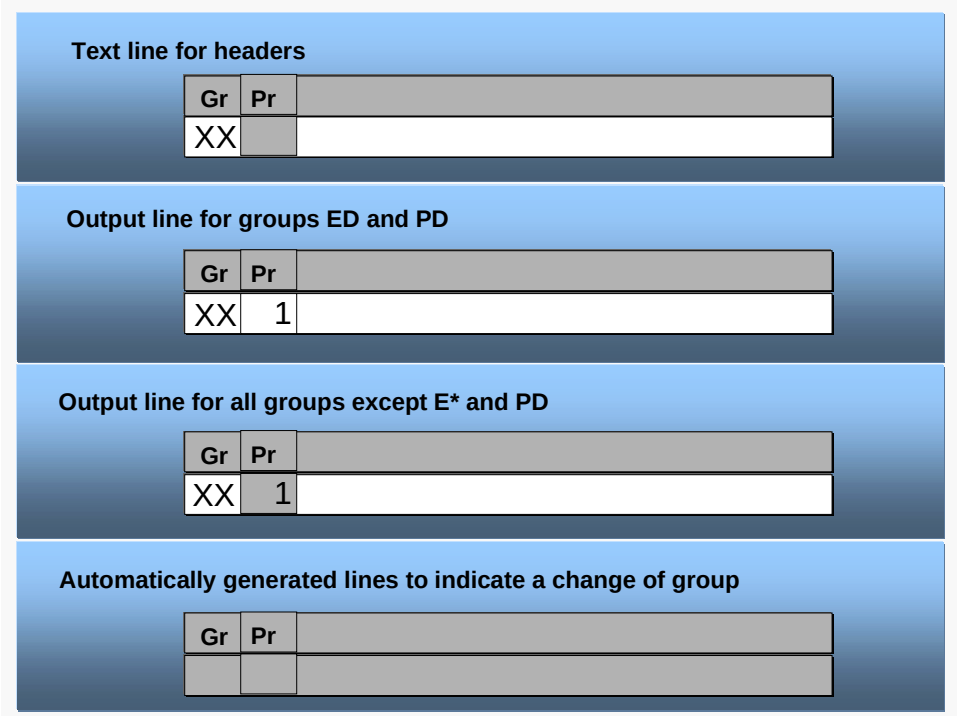
Overview: Groups for Displaying Information

Adding New Groups to the Form

Use

To add new groups to your form, you must copy lines from existing groups.

There are four types of lines in the form editor:



Groups in window F1 are divided into heading lines, lines that display single fields, and subheading lines.

Prerequisites

You use a standard form as a template.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Enter the required form.
3. Choose *Form layout* → *Change*.
4. Call window F1.
5. Copy a text line.
   a. Place the cursor on a text line of an existing group.

b. Choose *Edit* → *Copy line*.

c. Place the cursor on the last line of the group.

d. Choose *Copy line behind cursor line.*

A text line is inserted at the end of the group.

e. In the *Group* field, enter the new group name.

f. Choose ENTER.

The line is inserted automatically into the new group.

g. Insert a heading.

6. Copy an output line from an existing group.

a. Place the cursor on an output line of an existing group. An output field is one where the *Priority* field is filled.

b. Choose *Edit* → *Copy line*.

c. Place the cursor on the last line of the existing group.

d. Choose *Copy line behind cursor line.*

e. An output line is inserted at the end of the existing group.

f. In the *Group* field, enter the new group name.

g. Choose ENTER.

The line is inserted automatically into the new group.

Result

You have created a new group. You can insert single fields and names.

Displaying Day Data in the Time Management Form

Use

You can display single results for each day in the form, that is, single statements for employees' attendances and absences, and a daily view of time wage types and time transfers.

You can also display weekly totals for the balances.

Features

Taking account of the Time Management status

You can use report RPTEDT00 (*Time Statement*) to display other single results for each day, according to the employee's *Time Management status.* The form editor provides different groups that you can use to customize the different views.

For an overview of all the groups that you can use for displaying day data, see Groups for Displaying Information [Page 528].

Displaying preliminary day results

You can display preliminary day results, if required. Time evaluation generates preliminary results if there is an error for an employee that does not cause time evaluation to terminate.

You display preliminary day results in groups P*.

Overlay of competing information

There may be several competing items of information on a day, which means that some information may be overlaid.

For more information, see Prioritizing Displayed Information [Page 537]

Displaying the day and date

You can display the single results for each day with the date and weekday. The form determines the weekdays using a number from 1-7. You use feature LDAYW to determine the last day of the week.

For more information, see Text Conversions [Page 547] .

Displaying information only once per day

You can display information on a day (for example, the weekday) only once for each day by assigning a *rule* to a text or to a single field.

For more information, see Rules for the Form Layout [Page 539].

Displaying time data

You use table TP to display the time pairs or the number of hours for the following types of time data:

Time pairs (table PT)	Attendances
Absences	Substitutions
On-call duties	

Displaying preliminary day results

You can use field TEXT from table TP to display the text that corresponds to the subtype of the infotype. If, on one day, there are several items of information in table TP, they are displayed in several lines.

Displaying weekly totals

At the end of each calendar week, you can display a weekly total in group WS. The balances must have already been displayed in the day balances group.

Prioritizing Displayed Information

Use

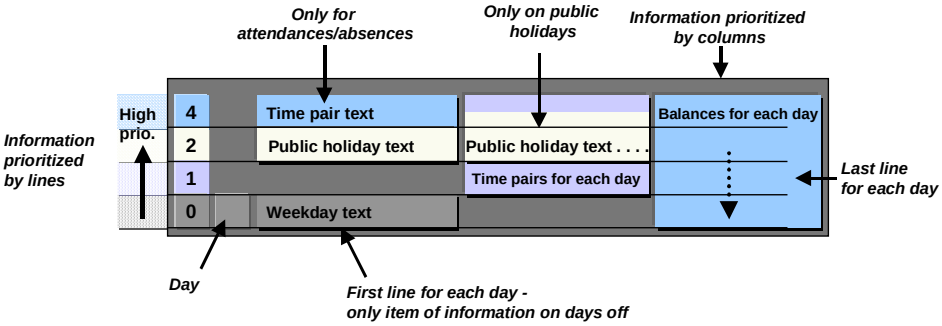
You use this function to determine which items of information are most relevant for a particular day. The form's technique of overlaying information enables you to specify exactly which items of information you want to display on a public holiday, a working day, and so on.

Recommendation: Before you use the time statement productively, test all possible situations that may occur in your enterprise.

Features

What is the most important information for a particular day?

Day	Text	Iter	Oter	STime	ETime	rec.	PTime	STime	Flex	OTime	DWS
01	Public holiday			EE not at work			4.00	4.00	0.00	0.00	FLEX B
02	Thursday			07:45	09:55	2.17					
	Doctor's visit <1 day			10:00	14:00	4.00					
				14:06	17:05	2.98	8.00	8.00	0.23	0.00	FLEX



Line-by-line overlay of information

By assigning priorities within groups E* and P*, you determine which information is displayed on a particular day. You can set priorities of 1-9 and A-Z, where 9 has a higher priority than 1, and Z a higher priority than A.

You should assign a high priority to important information, such as the attendance/absence text. If, on one day, there is no information with a high priority (for example, on a public holiday there are no attendances or absences), the information with a lower priority is displayed.

Column-by-column overlay of information

Information for each day is overlaid column-by-column. This allows you to display information with a lower priority if no other fields are entered at this position in the form (see the *Day* column in the example.)

Prioritizing Displayed Information

When you create a form, you should position all information that may possibly be overwritten, in columns, exactly under each other, to prevent overlaps. This can be done by assigning all single fields the same length.

Rules for displaying information

You can also specify rules to limit the situations in which certain items of information are displayed (for example, only on public holidays, working days with absences). To do so, select a field, and specify the situation in the *rule* field.

For more information, see Rules for the Form Layout [Page 539].

Rules for the Form Layout

Use

You can use rules for single results to limit the situations in which particular items of information are displayed.

Features

Rule	Information only to be displayed...
FL – First line/day	In the first line for each day Several lines are displayed for each day if: • Several time pairs exist for each day • Different information (for example, time pairs, time transfers and so on) exist for each day You are recommended to display the weekday or the date only in the first line of the day, for example.
LL – Last line/day	In the last line for each day
FD – Not full-day records	For a partial-day attendance/absence (for example, doctor's appointment)
TP – Only without time pairs/day	If there are no attendances/absences, time pairs formed from postings, and so on (for example, on a day off or public holiday)
SU – Substitution: not full-day	If a substitution exists for a day, but no full-day attendance/absence record (for example, for leave) has been created
HD – On public holidays	If the day is a public holiday
WD – On workdays	If the day is a workday for the employee
AB – If absence/day (line 1)	If a full-day absence exists on a day

Activities

1. Double-click the required field.

   The field attributes are displayed in the lower part of the screen.

2. Select a rule.

Inserting Single Fields and Descriptions

Use

To set up the form layout, you determine the information to be displayed in single fields. You can create an explanatory text or description for the single fields.

Descriptions and single fields

Description	Single field
Time data administrator	Andrea Miller
Cost center	12345

The text can be placed directly before a single field. If you want to display several items of information in one line, you can also group the data in a table. In this case, the descriptions are placed in the first line of the “table”.

Table layout

Editing in the form

Description	Skeleton time	Flextime balance	Overtime
Single field	ANZHL__	ANZHL__	ANZHL__

Display in the time statement

Description	**Skeleton time**	**Flextime balance**	**Overtime**
Single field	8.50	0.50	0.00

If you want to identify separate areas in the form or structure the form, you can insert lines that contain only headings.

For more information, see Adding New Groups to the Form [Page 533]

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Enter the required form.
3. Choose *Form layout* → *Change*.
4. Select the window to which you want to add a single field and description.

5. If you have selected window F1, scroll until you reach the group to which you want to add a single field or description.
6. Check that there is enough space in the line to insert the field or text.

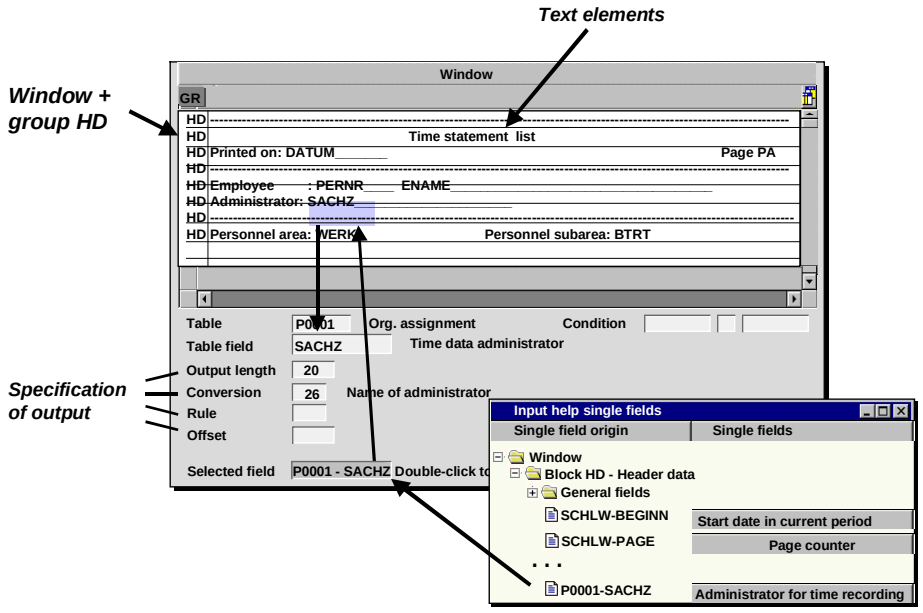
   You want to display the employee's time data administrator in window HD. You also want to display an explanatory text. You need at least 20 characters.
7. Create the necessary room by adding spaces or a new line.

   To insert a new line, place the cursor on the line behind which you want to add the line, and choose *Edit* → *New line.*
8. If required, enter a text.

   You enter *Time administrator.*

   If you only want to enter a text, choose *Transfer,* and save the form. If you also want to create single fields, proceed as follows.
9. Select the required field from the *Input help single fields* window.

   First choose the required table or block, and expand it. All fields contained in the table are displayed.



The modeless window for input help on the single fields may not appear. For more information, see Notes on Editing the Time Statement Form [Page 527].

Inserting Single Fields and Descriptions

10. In the *Single fields* column, select the field that you want to display on the form.

    The field is displayed in the *Sel. field* field in the form editor.

11. Place the cursor at the position in the form where you want to insert the field.

    The field is inserted into the window.

12. If required, specify the output length, conversion, and so on, for the field.
13. Choose *Transfer*.
14. Save the form.

Specifying Conditions in the Time Management Form

Use

To display the number of a time wage type or time balance, you must specify which time wage type or balance you want to display. To do this, you use the *conditions* function:

Features

Features are dependent on the form class you choose:

For forms of form class TEDT, you use the *condition* to specify the time balance or time wage type that you want to display.

You want to display the time balance *Productive hours* (0050) in the single results for each day.

Entry

		Condition		
Table	ZES	ZTART	EQ	0050
Table field	ANZHL			
...				

For forms of form class TELU, you also use the *condition* to specify the time balance or time wage type that you want to display. For this form class, you can also set an additional condition for the value to be displayed:

- The displayed value must not be less than (relational operator LT) the specified value
- The displayed value must not be greater than (relational operator GT) the specified value
- The displayed value must not be equal to (relational operator NE) the specified value

You want to run an evaluation at the end of the period. You want to display all employees who have a flextime deficit.

Entry

			Condition		
Table	SALDO		ZTART	EQ	0006
Table field	ANZHL	and	ANZHL	LT	0.00
...					

Only employees whose flextime balance is less than 0 at the end of the period are displayed.

Specifying Conditions in the Time Management Form

In groups FE, V*, C*, and AV, the specified conditions always apply to the entire line. You do not have to display the field carrying the condition on the time statement. To hide the field, enter an output length of 0. In the editor, the field is marked by a “^”.

Displaying Totals for Time Balances and Wage Types

Use

You can use the *Totals* function to summarize time balances or time wage types.

You want to display the flextime balance for the current period. You have specified in Customizing, however, that you want the previous period's flextime balance to be transferred. Therefore, to determine the current period's flextime balance, the previous period's balance must be deducted from the current balance.

Prerequisites

You have set up the required time balances or time wage types in Customizing, and filled them in time evaluation.

You can use the function for Specifying Conditions [Page 543]

Features

- As for the original data, you can display the summarized information in the single results for each day, the totals overview (group LP), and the time wage types (group ZL or ZM) in the time statement.
- You can use this procedure to form totals or differences, without having to customize the corresponding personnel calculation rules in the time evaluation schema.
- When you edit the form, you can create *totals identifiers,* in which you specify rules for determining the summarized time balances or time wage types. You can specify the totals identifiers in the form.
- The values calculated are temporary, and are not stored on the database.

Activities

15. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
16. Enter the required form.
17. Choose *Totals* → *Change*.
18. Create a new totals identifier.
19. Give the totals identifier a name.
20. Specify table ZL if you want to summarize time wage types, or table SALDO if you want to summarize time balances.
21. Enter the time wage types or time balances that you want to summarize.
22. Use "+" and "-" to form totals or differences.
23. Save your entries.
24. Choose *Form layout* → *Change*.

Displaying Totals for Time Balances and Wage Types

25. Create the field in which you want to display the summarized time wage type or time balance.
26. Create the condition:
    - LGART EQ <totals identifier> for time wage types
    - LGART EQ <totals identifier> for time balances

13. Choose *Transfer*.
14. Save the form.

Converting Display Data

Use

In the *Conversion* field, you can determine how a specified field is formatted. For example, you can determine the date format, whether a long text is displayed for a field, or which quota statuses are displayed.

The form editor provides conversions for particular situations. Note that not all conversions are suited to all fields.

Examples

Date format:Single field SCHLW-CDATUM

Conversion	Text displayed	Meaning
DM	05	Day of date
13	09/05/2000	Date in full

Long text:Single field ZL-ANZHL, condition LGART EQ MM10

Conversion	Text displayed	Meaning
BLANK	0.30	Number field
LT	Overtime 25%	Long text for field

Absence quotas: Single field SCHLW-QUOTAA

Conversion	Text displayed	Meaning
ET	20.00	Employee's total entitlement (for example, for each leave year)
DF	05.00	Quota from *Absence Quotas* infotype (2006) reduced by (= deducted and compensated)
OR	02.00	Quota from *Absence Quotas* infotype (2006) requested
RF	13.00	Future quota remainder (= total entitlement – deducted – compensated – requested)

Prerequisites

You have already added the fields you want to display to your form.

Activities

1. Double-click the field whose conversion you want to change.

Converting Display Data

2. Enter the required conversion in the *Conversion* field. In the possible entries help, you can view which special conversions you can use.

Conversions beginning with the letter “T” are used to convert texts. For more information, see Text Conversions [Page 549].

Converting Texts

Use

You can use this function to create predefined texts for particular fields and display them on the time statement form. This enables you to display texts for variables such as the weekday or pair type on the time statement form, for example.

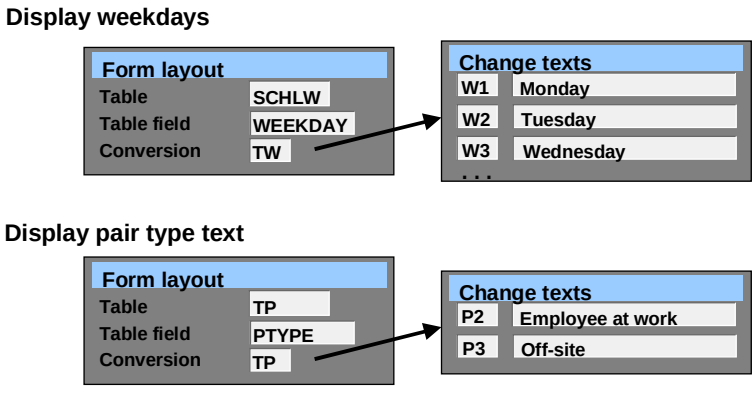
Prerequisites

You have already added the fields you want to display to your form.

Features

You create text conversions for single fields using the *Conversion* field in the *Change Form Layout* screen. You use the conversions beginning with “T” for text conversions.

For text conversions, the first character of a field in a form table is evaluated. You can also use the function for table fields with more than one character, as long as the first character of the field is unique.



For weekday texts, the last day of the week is determined by feature LDAYW. In the standard system, it is Sunday, but you can modify the feature if required.

Activities

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Enter the required form.
3. Choose *Form layout* → *Change.* Double-click the window in which you want to create a text conversion.
4. Create a conversion for a field.
   a. Double-click the field.
   b. In the *Conversion* field, use the possible entries help to select an unused conversion beginning with “T”.
5. Choose *Transfer*.
6. Choose *Goto* → *Text modules*.
7. Create text modules for your conversion. To do so, enter the second letter of the conversion, together with a sequence number, in the *No.* field.

   You want to display the day type on the form, and have created text conversion TY in window F1. You now create the following text modules:

   Y0 – Work/paid

   Y1 – Off/paid

   Y2 – Off/unpaid

   Y3 – Off/special day
8. Save the data.

Create Language Versions of the Time Management Form

Use

Many enterprises have employees who have different native languages, even if they all work in the same country. For this reason, you can display and print the time statement in different languages so that employees receive their time statements in their native language.

To do this, you create different language versions of a form. You can use the *Output language* field on the report selection screen of the Time Statement (RPTEDT00) to specify how the employee's native language is determined.

The country grouping is independent of the output language. You specify the country grouping when you create a form.

Prerequisites

You have already created a form.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Tools* → *Form editor* (or transaction PE50).
2. Enter the form for which you want to create a new language version.
3. Choose *Form layout* → *Change*.
4. Select the source language (language to be translated from).

   The *Change Form Layout* screen appears.
5. Choose *Edit* → *Language* → *Copy*.
6. Enter the target language (language of the version you want to create).
7. In windows HD and F1, translate the text elements that are used as names of single fields. Note that the translation cannot be longer that the source language.
8. Choose *Transfer*.
9. Choose *Goto* → *Text modules*.
10. Translate all text modules whose key (*Field no.*) begins with a letter.
11. Save the data.

Result

You have created a new language version of the time statement.

Message Processing in the Time Manager's Workplace

A redesigned message processing function has been integrated into the *Time Manager's Workplace.* It enables time data administrators to use the same user interfaces for processing time evaluation messages as for maintaining time data.

The developments catered to many requirements directed at message processing. The functions for processing time evaluation messages in the *Time Manager's Workplace* offer the following functional enhancements compared to the error handling function in the *Time Management pool.*

Switch between message-oriented and employee-oriented processing

When administrators process time evaluation messages, they encounter messages describing standard situations, which can be dealt with quickly and routinely. Other messages, however, require a complex employee-related analysis of the subject.
The new user interface caters to both situations. Time data administrators can switch between a message-oriented and an employee-oriented view:

In the message-oriented view, messages are displayed according to the message types or grouped in message functional areas. The focus here is on quickly dealing with easily-processed messages.

In the employee-oriented view, all messages for one person are displayed in a list. This enables administrators to concentrate on all messages for one person.

Message functional areas

You can use message functional areas to group together messages that have a similar subject matter or that have to be processed in the same way. This enables all messages in one functional area to be displayed under one node and selected for processing in the message-oriented view.

Contextual information on messages

Administrators often require specific contextual information such as the status of particular time accounts or the of the relevant work schedule to be able to analyze messages. You can display the required contextual information in directly in information columns for each message or for one message functional area

Identification of messages that have already been processed

Time data administrators generally perform time management tasks in addition to their main tasks, and are often interrupted when they work. The new message processing function therefore enables them to flag as completed messages that they have already processed.

Notes and information messages are displayed in the message list until they have been set to completed. This means that administrators no longer have to use special criteria such as a date to select notes that were generated before the weekend, for example.

Confirmation of notes and information messages

Many time administrators like to view the progress of their work in the message list. They can therefore remove messages from the message list in the *Time Manager's Workplace* message processing view when they have taken note of them.

Time Management Pool

Purpose

The *Time Management pool* is a comprehensive instrument that can be used to check, correct, and display evaluated time data. Time data administrators can perform all their most important administrative tasks, such as processing time evaluation messages, from one central screen.

Features

- All the essential functions and information required by time data administrators to postprocess time data are grouped on one user interface, and can be accessed using the appropriate pushbuttons.

- Postprocessing messages from time evaluation
- Postprocessing error situations that have arisen from communication with the time recording system
- Creating information on planned and actual working times
- Time data administrators can flexibly select employees and user-specific report variants.
- A mail function enables time data administrators to receive information on error situations in their R/3 Office Inbox. Telephone integration enables time data administrators to call employees directly.

Note:

The functions of the *Time Management pool* have been developed further, with the focus on ease-of-use and efficient management of time management-related data. New functions are available for processing messages, running reports, and controlling communication with a time recording subsystem.

1. A new function is available in the *Time Manager's Workplace* to enable the simpler and more flexible processing of messages.

   For an overview of the advantages of the new message processing functions in comparison to *Error Handling,* see Message Processing in the Time Manager's Workplace [Page 552].

   For a description of the functions of message processing, see Message Processing [Page 873].

2. The Time Management reports have been integrated into the menus that were developed for the *Time Management roles.*
3. You now access the functions informing you of errors during the upload of time events from the time recording subsystems and during the transfer of confirmations from Logistics using the *Subsystem Connection* function (transaction PT80).

Error Messages in the Time Management Pool

Use

Many activities within time evaluation run automatically and in the background. This includes the upload of time events from the time recording systems, and the transfer of confirmations from Logistics.

It is possible that data to be transferred to the HR system may be incorrect. The *Time Management pool* informs you of any errors that have occurred when time events were uploaded from the time recording system, or confirmations transferred from Logistics.

Features

If there is an error, the system displays pushbuttons when you call the *Time Management pool:*

Batch Input Sessions

Data is transferred from Logistics using batch input sessions. If there were errors when the batch input session was processed, the *Sessions* button is displayed.

If this happens, inform the administrator responsible or the system administrator. He or she can select the sessions containing errors by choosing *Time Management pool* → *Logistics errors* → *Sessions with errors* from the Time Management pool. The incorrect entries can be corrected or deleted by processing the session in the foreground.

Time events

If this pushbutton is displayed, errors have occurred when the time events were uploaded.

Among the time events is a record which could not be assigned a personnel number. The record cannot be updated in the HR system.

Please inform the administrator responsible or the system administrator. From the *Time Management pool*, he or she can choose *Time Management pool* → *Time events errors* to display a list of pools featuring incorrect time events.

It may be the case that a personnel number can be assigned via the *Time Recording Information* (0050) infotype to a time event with no time recording ID number. The pool can be updated again in this case. Otherwise, the pool has to be deleted, since it cannot be updated in the HR system.

When the errors have been rectified, the pushbuttons on the initial screen of the *Time Management pool* are no longer displayed.

Selecting Employees in the Pool

Use

On the initial screen of the *Time Management pool,* you can select employees for various task areas in the pool.

Alternatively, you can use the flexible employee selection options to create a list of employees whose data you want to process, according to organizational assignments.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

2. Select the employees for a particular task. The options are as follows:

   a) Standard setting

   The standard system uses the values entered in your user parameters for *Time recording administrator* and *Administrator group* as default values.

   To maintain user parameters for the time recording administrator (SAZ) and the administrator group (SGR), choose *System* → *User profile* → *User parameters.*

   The system then selects all employees assigned to you in the *Organizational Assignment* (0001) infotype.

   b) Substituting a colleague

   If you want to substitute a colleague, or there are several administrator groups assigned to you, it is possible to overwrite these specifications by entering a different *time recording administrator* or *administrator group*.

   c) Selection by work schedule rule

   If you want to limit the number of employees further still, you can enter a work schedule rule. Only the employees who are assigned to you and who have appropriate entries in the *Planned Working Time* (0007) infotype are selected.

   d) Selecting an individual employee

   If you want to process a certain task for one employee only, enter the personnel number either in addition to the other data, or by itself.

   If you enter a personnel number, the system ignores all other selection criteria and only displays data for the relevant employee.

3. Choose a function, for example, *error handling*.

   A dialog box appears.

Selecting Employees in the Pool

4. Enter the validity period, that is, the date for which you want to perform error handling, time leveling, and so on. Choose *Continue*.

Result

You have selected employees for a specific task in the Time Management pool.

Error Handling

Use

Errors can occur in time evaluation which prevent the program from being run correctly. There are various reasons for these errors: if the employee has forgotten to record a time event, for example. The error handling function in Time Management enables you to rectify errors which have arisen in the course of time evaluation.

The *Error Handling* function has been further developed, with the focus on ease-of-use and efficient postprocessing of messages, in *Message Processing* in the *Time Manager's Workplace.*

For an overview of the advantages of the new message processing function, see Message Processing in the Time Manager's Workplace [Page 552].

For a description of the functions of message processing in the *Time Manager's Workplace*, see Message Processing [Page 873].

Features

An error list displays all messages that have been generated during time evaluation. For more information, see Grouping Messages [Page 494].

The following utilities are available to correct the errors:

- You can obtain information on the employee's working time specifications and actual working times
- You can change the incorrect data in the relevant infotypes
- You can create new infotype records.

Run Error Handling

Use

When you start error handling, the system displays the messages [Page 557] for all selected employees as of the recalculation or reference date.

The system sets the recalculation date automatically. This ensures that days on which errors have occurred, and/or days for which changes have been made to infotypes, are reevaluated.

You can display information messages which were generated before the recalculation date by entering a reference date. This allows you to create a list containing all information messages for a specific time period.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

2. Select [Page 555] the employees for whom you wish to process messages.
3. Choose *Error handling*. A dialog box appears.
4. In the *Reference date* field, enter the first day for which messages should be listed.
5. Confirm your entries.

   The *PDC error processing overview* screen appears.

Result

You have started error handling.

Correcting Errors Using the Error Handling Function

Use

Error handling displays a list of all messages [Page 493] generated in time evaluation. You can perform the necessary steps for correcting errors by selecting the appropriate line from this list.

Procedure

1. Start [Page 558] error handling.

   The *PDC error processing overview* screen appears.

   (a) Personnel numbers that have already been edited in error handling are flagged with an *editing indicator* in the error view. This means that you can easily recognize the status of processing.

   The *editing indicator* is set by the error handling function if infotypes or time tickets have been created or changed. The indicator is canceled if the time evaluation program is run again.

   (b) Errors which have to be corrected are red, all other errors are orange, and information is yellow. Notes do not appear in color. There is a color legend under *List* → *Color legend.*

2. Select the record you want to correct. Place the cursor on the corresponding message and select *Choose*.

   You obtain a document view of the essential employee time data for the day being processed. From the entry in the error list (*messages)*, you can ascertain why a message has been generated.

3. Correct the error(s) by positioning the cursor on the appropriate line in the document view (for example, in the time event [Ext.] or time pairs [Ext.] lists). Choose *Choose*. The system automatically displays the infotype record containing the error.

   To create a new infotype record or incentive wage data (for example, for an overtime approval or a clock-in time), choose the type via the *Create* menu. The appropriate data entry screen appears.

   You can use the *time event* function to enter missing time events, or correct existing events with errors.

   The *Goto* menu takes you to the screen for editing time and incentive wage data.

4. Choose the next message or error.

   You do not have to exit the *PDC Error Handling Document View*. Choose → *Goto* to navigate from one message to another. The system follows the same sequence as in the *PDC Error Handling Overview* screen.

5. After you have made the correction, exit the *document* screen by going back one step.
6. Save the *editing status* if you want to interrupt the error handling function. If you restart error handling, the editing indicator denotes the employees for whom you have already corrected errors.
7. You can now start time evaluation for any employee (or for all employees) assigned the editing indicator.
   You can start time evaluation for an individual employee by placing the cursor on the personnel number.

   Alternatively, you can wait until the next scheduled time evaluation run. All changes will be taken into account.
8. Check whether errors have occurred in the rerun of time evaluation, and correct them if necessary.

Result

You have corrected the errors detected in time evaluation.

Time Leveling (Report RPTCMP00)

Use

This report creates a list of employees for time leveling. You can use the *time leveling* report to compare employees' actual working times to the times documented for them in the form of time or incentive wage data. You can then make corrections or new entries so that the time data corresponds to the actual time worked. You can monitor, for example:

- Which time data is documented with special times
- Whether employees have completed their planned working hours
- Whether there are sufficient time tickets for employees who work on an incentive wage basis.

You can adjust the times, if required.

Determining the comparison times

- Determining the daily *working time*
  In *time leveling*, the term *working time* refers to actual working time, as opposed to planned working time in infotype 0007.

  An employee's daily working time is determined according to whether actual times are recorded and evaluated (*Time Management status* in the *Planned Working Time* infotype (0007).

  – Case 1: No recording of actual times (*Time Management status* field has a value of 0 or 9). The working time is determined from the employee's personal work schedule. *Absences* from infotype 2001 reduce the working time, and *overtime* from infotype 2005 increase the working time.

  – Case 2: Recording of actual times (*Time Management status* field has a value between 1 and 8).
  The working time is calculated from the results of time evaluation (report RPTIME00). The time type flagged as productive time can be specified as a parameter for the report (for example, time transfers can be included in the cumulation of working time via this time type).

  For absences of more than one day, the working time is reduced each day by the time specified in the work schedule. For overtime over more than one day, the number of hours specified in the overtime record is added in equal proportions to the working time of the individual days.

- Determining the *documented time*
  An employee's *documented time* is calculated as follows:

  – The actual labor time from incentive wage time tickets increases the documented time.

  – The actual setup time from incentive wage time tickets increases the documented time.

  – The actual teardown time from incentive wage time tickets increases the documented time.

  – *Attendances* from infotype 2002 increase the documented time.
  For attendances of more than one day, the documented time is reduced each day by the time specified in the work schedule.

  - *Employee remuneration specifications* from infotype 2010 increase the documented time.
  - Time remunerated by a bonus wage type is not taken into account, however.

- Determining the *planned time*
  Planned time refers to the time worked in incentive wages The planned time is calculated from the planned labor time, the planned setup time, and the planned teardown time.

Prerequisites

If actual times are recorded for employees, their working time is calculated from the results of time evaluation. The *Time Leveling* report only produces appropriate results if these employees have been evaluated without errors in time evaluation.

Features

- In the period view, the report displays for each employee the working time, the documented time, and the difference between the two. You can branch from the period view to the day view, and from the day view to the document view.
- In each view, you can add to or correct data using the maintenance transaction. For example, you can create new infotype records or incentive wage data (for an overtime approval, for example).
- In the standard selection screen, you can specify in the *Minimum* field a value as of which the difference between the documented time and the working time is highlighted in color. On the list screen, the differences are highlighted as follows:
  - If documented times exceed working time, the differences are *green*
  - If documented times fall short of working time, the differences are *red*.

    The planned times and the incentive wages results are highlighted as follows, depending on the Customizing settings:
  - Slight excesses or shortfalls in the minimum/maximum results are *yellow*
  - Significant excesses or shortfalls in the minimum/maximum results are *red*
- You can hide employees for whom the difference between the documented time and the working time is less than the value in the *Minimum* field.
- If you evaluate employee who participate in incentive wages, you can also display the planned times for the time tickets and the incentive wages results (labor utilization rates, premiums), in addition to the working time, documented time and the difference. In the *Planned time* and *Result* columns for the period and day views, only values from employee-related time tickets are taken into account. Group results are displayed in the time tickets in the document view.
- If you record all employee attendances in the *Attendances* (2002) or *Employee Remuneration Information* (2010) infotypes, you can use the *time leveling* function to check whether your employees have completed their planned working times.
- The *time leveling* report allows you to compare the specifications in the employee's personal work schedule to the confirmed times from Logistics. This is useful for employees who do not record their actual times at a time recording terminal.
- If you select employees according to the time recording administrator (in the selection screen or using matchcode L), the system displays all employees for whom the administrator is

responsible on the current date (system date). If the administrator was previously responsible for an employee, but is no longer, the employee is not displayed.
For a better system performance, use matchcode L for the selection.

Activities

Switching between the different views

The report has the following views:

- Period view
- Day view
- Document view

Period view

In the standard system, the report first displays a list of the totaled values for the period. For each employee, an overview of the total working time, documented time, and the difference between the two is displayed.

Day view

In the period view, select a line and choose *Choose.* The day view appears. It displays the totaled values for each day of the selection period for the selected employee.

Document view

You can branch from the day view to the document view as follows:

1. Select a line and choose *Choose.*
   The document view appears. It displays the employee's personal work schedule and, if the employee participates in incentive wages, the time tickets.
2. To display the time documents and specified times for the day, choose *Display all.*
3. Select a line and choose *Choose.*
   The corresponding infotype or incentive wage record appears. You can supplement or correct the entries directly.

You can branch to the maintenance function for time or incentive wages data from all the views by choosing *Goto* and *Create.*
If you change records or create new ones for an employee whose actual times are recorded, you must run time evaluation again (choose *Time evaluation*). You can then choose *Refresh* in the period or day view to access the up-to-date data. Changes are continuously updated in the document view.

Using the Time Leveling Function

Use

You can use the *time leveling* report to compare employees' actual working times to the times documented for them in the form of time or incentive wage data. You can then make corrections or new entries so that the time data corresponds to the actual time worked.

There are three levels to *time leveling*: the *period view*, *day view* and *document view*.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

   You can also access the *time leveling* report via the *reporting tree for Time Management*. For an explanation of the report selection screen, see *The Report Selection Screen* in the Personnel Administration documentation.

2. Select [Page 555] the employees for whom you wish to perform *time leveling*.

   The *Time leveling period view* screen appears. The system displays an overview of the *working time*, *documented time*, and the *difference* between the two.

3. Select a record. Place the cursor on the relevant line and choose *Choose*.

   The *Time Leveling Day View* screen appears. The system displays a day overview of time data for the period being processed.

   Check the records that are displayed. To maintain time and incentive wages data, choose *Goto.*

4. Select any day with an incomplete or incorrect entry by *choosing* the relevant line.

   The *Time Leveling Document View* screen appears. This view displays the most important time data recorded for a day, and the employee's personal work schedule. Choose the *All* function if you want to see all time data recorded and specified for one day.

   If you *Choose* a line, you go straight to the corresponding infotype or incentive wage record.

5. Correct or complete the entries, if required.

   From here, you can also create new infotype records or incentive wage data (for example, for an overtime approval or a clock-in time). Choose *Goto* to branch to the screen for maintaining time and incentive wage data.

6. Go back to the *day* or *period view*. Choose the next record you want to process.

If you have changed data records or entered new ones, you can use the *Refresh* function to update all entries.

7. Print the *time leveling* data, if required.

You can print the *time leveling* lists at any time, including the *period view*, *day view* and *document view*.

Result

You have performed *Time leveling.*

Checking an Employee's Time Documents

Use

The *time document* provides information on all relevant time data for an employee. You can specify the period for which you want to check the employee's time documents.

You can use the *time document* to carry out the following tasks:

- Check an employee's recorded times and incentive wage data
- Compare the times to the specifications in the employee's personal work schedule
- Document the data (by printing the *time document*).

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

2. Select [Page 555] the employee for whom you wish to create a *time document*.

   The *Time Leveling Document View* screen appears. Only a selection of time data is displayed at first. Use the *All* function if you want a complete overview.

3. Obtain more details on the time data, if required.

   If you *Choose* a line with the cursor, you branch directly to the corresponding infotype or incentive wages record, or to the valid daily work schedule.

4. If required, you can print the *time document*.

Result

You have created a *time document* for an employee.

Checking Employees' Attendances

Use

You can use this report to generate an overview of all employees who are at work or absent - having given prior notification - at a specific time, and of their anticipated attendances and absences for the remainder of the selected day.

The list helps you to detect which employees are at work at the time of the evaluation, which are running late, and which are absent without having given notification.

The report variant, specified when the system was customized, governs which data is displayed.

The evaluation is based on the time events recorded by employees at the time recording system, and on the *Attendances* (2002) and *Absences* (2001) infotypes.

Depending on the Customizing settings, the system also takes account of time events that fall before the start of planned working time (for example, 3 hours). This function allows you to check attendances for employees who work overtime before the official start of their planned working time.

Employees who work overtime after their planned working time has ended are not considered in this evaluation.

In the standard system, you can refer to the following information to see when an employee is expected to be at work on the current day:

- Last clock-in entry and off-site work data, if you use time recording systems
- Recorded absences, both partial day and full days
- Recorded attendances such as business trips.

If you use time recording systems, you should upload the time events from there to the HR system shortly before starting the evaluation.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

2. Select [Page 555] the employees whose attendances you wish to check.
3. Choose *Attendance check*. A dialog box appears.
4. Enter the time of day for which you want to run the evaluation. Choose *Continue*.

   The *Attendance Check* screen appears. The data shown indicates which employees are/were at work at the time of the evaluation.

Result

You have performed an attendance check.

Create a Time Statement

Use

You can use the *time statement* function in the *Time Management pool* to print an overview of the time balances calculated for individual employees in time evaluation. You can also create time statement forms for specific employees, if required.

If this report is to generate accurate data, the *time evaluation report* (RPTIME00) must have been run without errors for the employee and period in question.

The time statement form can be customized in line with customer-specific requirements. The format and content of what is printed on the time form depends on the settings made when the system was customized.

Procedure

5. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

   You can also access the *time statement* report via the *reporting tree for Time Management*. For an explanation of the report selection screen, see *The Report Selection Screen* in the Personnel Administration documentation.

6. Select [Page 555] the employees for whom you want to create a time statement form. Choose the *time statement* function.

   The *Time Statement Form* screen appears. This displays the employee's time balances for the selected period.

   If you create the time statement form for an entire period that has already been accounted, you obtain an overview of the balances calculated for the accounted period, in addition to the daily balances.

   Please note that the total of daily balances and the balances for the period can be different, depending on period-end processing. This is the case if certain balances are transferred at the end of a period (for example, the flextime balance is converted to overtime at the end of the period).

7. Check the time events or time data that form the basis for the daily balances.

   Individual results that can be checked in greater depth are flagged with a special sign. Place the cursor on the result and select *Choose*. The display mode for the corresponding infotype appears.

8. Print the time statement form, if required.

   You can print the time statement form by choosing *List* → *Print,* or save it to a file via *List* → *Download.*

Result

You have created a time statement form for an employee.

Print an Overview of Time Balances

Use

The *balance overview* function in the *Time Management pool* allows you to print an overview of the time balances calculated in time evaluation for all the employees under your jurisdiction.

If this report is to generate accurate data, the *time evaluation report* (RPTIME00) must have been run without errors for the employee and period in question. Employees with errors are displayed at the end of the time balance overview.

The time balance overview can be customized in line with customer-specific requirements. The format and content of what is printed on the time form depends on the Customizing settings.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*
2. The *Time Management Pool* screen appears.

   You can also display an *overview of time balances* via the *reporting tree for Time Management*. For an explanation of the report selection screen, see *The Report Selection Screen* in the Personnel Administration documentation.
3. Select [Page 555] the employees for whom you wish to generate time balance overviews. Choose the *balance overview* function.

   The *Flextime Overview* screen appears. This displays the employees' time balances for the selected period.

   Please note that

   - The total balances of a time interval within the period and
   - The balances of the period

   need not be the same, depending on period-end processing. This is the case if certain balances are transferred at the end of an accounting period (for example, the flextime balance is converted to overtime at the end of the period).
4. Results that can be checked in greater depth are flagged with a special sign. Place the cursor on the result and select *Choose*.
5. If necessary, check the balances for the individual days of the period.

   Place the cursor on the result line for an employee and choose *Choose*.
6. The system displays the time statement form for the selected employee, including an overview of daily balances.

If you have selected an entire period that has already been accounted, a totals overview is displayed after the individual results.

7. Check the time events and time data that form the basis for the daily balances, if necessary.

   Place the cursor on the employee's daily result and choose *Choose*.

   The display mode for the corresponding infotype appears.

8. Print the time statement form, if required.

   You can print the time statement form by choosing *List* → *Print,* or save it to a file via *List* → *Download.*

9. Go back one level. Check further employees, if necessary.

10. Print a *time balance overview* for all employees, if required.

Result

You have checked the time balances for all employees assigned to you in your capacity as administrator.

Checking Time Accounts

Use

You can use the *time accounts* function in the *Time Management pool* to check an employee's current time balances.

The time balances are calculated in time evaluation. You cannot change them using the *time accounts* function.

Please note that the current balances are only displayed if:

- The *time evaluation report* (RPTIME00) has been run without errors for the employee
- The last run of the *time evaluation report* (RPTIME00) has already evaluated the time data of the previous working day.

If you use time recording terminals, certain of the balances displayed are the balances that will be downloaded the next time to the terminals. Please note that the balances and mini-master records of *all* employees are downloaded. It is not possible to download balances for an individual employee.

For more information, see Downloading Employee Balances [Page 364].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time evaluation* → *Time management pool.*

   The *Time Management Pool* screen appears.

   You can also display *time accounts* via the *reporting tree for Time Management*. Enter the personnel number of the relevant employee.

2. Select [Page 555] the employee for whom you want to display balances.
3. Choose the *time accounts* function.

   The *Time Accounts* screen appears.

4. Check the balances.
5. Exit the screen.

Result

You have checked an employee's current balances.

Printing Cumulated Time Evaluation Results

Use

The report *Cumulated Time Results - Time Balances and Time Wage Types* (RPTBAL00) enables you to analyze the results of time evaluation according to various aspects of organizational assignment.

The report is not so much concerned with employees' individual results as it is with the results for organizational units such as

- Business area
- Personnel subarea
- Foreman's area

They can be compared to the results for other units of the same category by forming sum totals and, if required, subtotals of the results.

You can call the report RPTBAL00 (*Cumulated Time Evaluation Results - Time Balances and Time Wage Types*) by choosing Human Resources → *Time Management* →*Administration* → *Info system* → *Report selection* → *Time balance.*

Features

Selection

You can use the report to compare individual daily balances, period balances or time wage types. The required balances or wage types can be specified as a selection criterion.

- You wish to see how much excess flextime (time type 0006) was worked by employees assigned to cost center 12345 for periods 01 - 06/1996, as opposed to employees on cost centers 12344 and 12342.
- You want a list printout which enables you to compare overtime wage types for personnel subareas 0001, 0002, and 0003 for the period 02/1996.

Output

There are various ways of formatting the list printout. Important fields can be inserted in the list screen using the *Display variant* function, and you can also delete fields which you do not require.

A subtotal can be generated for each numeric field in the list using the function of the same name. Place the cursor on the relevant field name and choose *Edit* → *Subtotal*.

You can retrieve all the information that is relevant to that line, for example

- Organizational information
- Administrator responsible
- Personnel number
- Time type

Select the relevant line and choose *Choose details.*

Appendix

The appendix contains detailed technical information relating to time evaluation.

Personnel Calculation Rules in Time Evaluation: Overview

The overview lists all personnel calculation rules contained in the standard schema TM00.

<Standard personnel calculation rules in schema TM00>

Processing step in time evaluation	Name	Short Description
Before day processing	MODT	Initialization: Set groupings
Day processing	TD10	Check if daily work schedule is still active
Retrieve data	TD20	Process pair formation errors
	TD30	Dynamic daily work schedule assignment
	TD40	Process the *Overtime* infotype (2005)
	TD60	Convert daily work schedule, in event of RWH (reduced working hours) or leave
	TD80	Process attendance/absence reasons (clock-in entry)
	TD90	Process locked records
Error checks	TE10	Adjust absences
	TE20	Day-specific error checks
	TE30	Pair-specific error checks
Planned-actual comparison	TL10	Round first and last pair
	TF10	Starting point for dynamic breaks
Determine planned pairs	TP10	Adjust absences if flextime balance is greater than 0
	TP20	Process absences with time compensation
	TB10	Shorten automatically delimited off-site work records
Determine overtime	TO10	Generate overtime approval, P0050 (overtime generation according to the *Time Recording Information* infotype (0050))
	TO15	Evaluate overtime approval according to the daily work schedule (T550A)

	TO16	Calculate overtime for time pairs outside of planned working time
	TO20	Form overtime pairs with quota
Compensate overtime	TC20	Overtime compensation
Balance formation	TR10	Form daily totals
	TR30	Calculate flextime balance for current day
	TR40	Check minimum daily working time
	TR50	Check maximum daily working time
	TR60	Check for core time violation
Final processing	TS10	Update leave balance
	TS20	Convert excess flextime to overtime (if employee is authorized to work overtime)
	TS30	Check for flextime excess/deficit

Views and Tables in Time Evaluation: Overview

This section introduces the main views and tables which are used to set up the time evaluation component.

It should enable you to obtain an overview of the contents of the respective table, or the settings made when the system was customized (view maintenance).

It is advisable to maintain views via the steps described in the Implementation Guide. It contains all the information you require to maintain views.

Note that table maintenance is not connected to a transport system. If you change table contents, you can only transport them to other clients via *Enhanced table maintenance* (view maintenance).

Time types

The time type tables define the characteristics of specific time balances which are processed during time evaluation.

Name	View	Table
Time types	V_T555A	T555A
Time type generation	V_T555Z	T555Z

Time transfer

The characteristics of time transfer types are defined in the time transfer tables.

Name	View	Table
Time transfer types	V_T555P	T555P
Time transfer specifications: Transfer to time types	V_T555J	T555J
Time transfer specifications: Transfer to wage types	V_T555K	T555K
Time transfer specifications: Transfer to absence quotas	V_T555L	T555L

Error tables

Specific errors are defined in the error table and assigned a name. The errors are printed in time evaluation.

Name	View	Table
Time evaluation errors	V_T555E	T555E

Views and Tables in Time Evaluation: Overview

Work time event type

The internal indicators for clock-in and clock-out indicators and so on are defined and assigned a name in the tables for work time event types.

Name	View	Table
Internal work time event types		T705C
Function codes		T705D
Work time event type groups		T705O
Work time event type texts		T705U
Function code texts		T705V

Time wage type selection

Rules for selecting time wage types are defined in the table for time wage type selection.

Name	View	Table
Time wage type selection rule	V_T510S	T510S

Wage type valuation

The table for wage type valuation defines rules for the processing and evaluation of wage types in payroll.

Name	View	Table
Wage type valuation		T512W
Valuation bases	V_512W_B	
Selected processing classes, cumulations and evaluation classes	V_512W_D; logical view name: 01_T510S - Overtime compensation	
Wage type texts	V_512W_T	

Form tables

You can use the form tables to customize the printout of the time statement list.

Name	View	Table
Form-related control of wage types .	V_T512E	T512E
Supplementary group texts	V_T512G	T512G
Form background	V_T512P	T512P
Fixed layout data items	V_T512Q	T512Q

Tables for general control

The following are general control tables in time evaluation.

Name	View	Table

Employee grouping for time evaluation rule		T555N
Overtime compensation type		T555R
Time management status		T555U
Attendance/absence reasons subsystem	V_T555D	T555D
Leave types	V_T5533	T533

Internal Tables in Time Evaluation

The following section introduces the internal tables in time evaluation, which can be referenced in personnel calculation rules. The internal tables are referred to as the *work tables* of time evaluation. The tables are filled and changed in the course of the time evaluation run. If time evaluation requires specific data for a processing step, it queries the data from the internal tables and processing continues accordingly. At the end of a processing step, the modified data is entered back in the internal tables by the time evaluation program. It can be accessed there for subsequent processing steps.

The internal tables are temporary, and are deleted once the time evaluation run is complete for an employee. Any data that is still required - time balances and time wage types, for example - is exported to the tables in Cluster B2, file PCL2, at the end of time evaluation.

The time evaluation log allows you to check whether and how the internal tables have been filled and changed at any stage in the program. Insert the following functions, for example, at the appropriate position in your schema:

- PRINT TIP
- PRINT TES
- PRINT DZL
- and so on

and choose the program option *Logging on* on the report selection screen.

The following sections explain what the internal tables are used for, and what type of information they contain.

The Internal Table TIP

Definition

The internal table TIP (daily input) is the work table for time evaluation.

Use

The time pairs determined on the basis of the time postings are inserted in TIP. In the course of time evaluation, the time pairs in TIP are processed, changed and made available for further processing.

Structure

TIP provides the input of the previous results for the respective processing step. The time pairs are then transferred individually to a personnel calculation rule for processing. After processing, the new results are inserted in the internal table TOP (daily output). There are no more time pairs in TIP at this stage. TOP is renamed as TIP for the next function, so that further processing can be performed from a different perspective.

Table TIP

Column	Meaning
Start / End	**Decimalized start and end times**
1	Status 1: Status from pair formation 0 or BLANK = Pair is complete 2 = No clock-in (first time event of the day is missing) 3 = No clock-out (last time event of the day is missing) 4 = No end time for break. Employee is absent for a brief period. The system expects a second time event 7 = No start time for off-site work 8 = No end time for off-site work E = Order confirmation missing A = Delimited in time evaluation

The Internal Table TIP

P	Pair type 0 = Non-recorded time 1 = At work (*Time Events* infotype (2011), clock-in/clock-out entry, planned pair according to daily work schedule) 2 = Recorded absence (*Absences* infotype (2001)) 3 = Off-site work or recorded attendance (infotype 2002)
ID	Time identifier: Relation to daily work schedule 01 = Overtime (time outside of daily work schedule) 02 = Fill time 03 = Core time 04 = Core time break 05 = Fill time break 06 = Paid break 07 = Unpaid overtime break 08 = Paid overtime break 09 = Overtime break
CT	Processing type/time type class  The processing type/time type class is stored in the view *Processing type and time type according to attendance/absence class* (T555Y).
C	Processing Type - = Pair is deleted at a later stage BLANK = Pair not counted as productive time S = Planned working time pair M = Overtime A = Absence pair included in the calculation of planned working time P = Attendance pair included in the calculation of planned working time K = Core night work

TTyp	Time type  The time types are stored in view V_T555A, *Time Types*.
BR	Start time event type Time event type of first entry
ER	End time event type Time event type of last entry
C	Overtime compensation type BLANK = Remuneration 1 = Remuneration (basic pay plus overtime bonus) 2 = Basic pay 3 = Compensation (time off)
O	Origin indicator of time pair E = Time event O = Overtime from *Overtime* infotype (2005) A = Absence from *Absence*s infotype (2001) P = Attendance from *Attendances* infotype (2002) R = Availability from *Availability* infotype (2004) D = Generated planned pair C = Attendance/absence reasons
I	Internal key for availability duty  The *internal key for availability duty* is stored in view V_T557, *Availability Types*.
BPIN	Start attendance/absence type
EPIN	End attendance/absence type

The Internal Table TIP

PT	Pointer to attendance pairs from pair formation  In order that table TIP is not supplied with too much information, further data which is relevant to the time pairs is stored in other tables. This division of the data is referred to as a split. Only the *pointer* to the respective data is listed in TIP. The number listed under the table split refers to the relevant record in the table. The numbers in these tables are assigned consecutively.
AL	Pointer to different payment
C1	Pointer to cost distribution
AB	Pointer to absence pairs
No.	Number of hours of a time pair

The Internal Table TOP

Definition

The internal table TOP (daily output) is a utility table in time evaluation, and is closely related to the internal table TIP.

Use

TIP provides the input of the previous results for the respective processing step. The time pairs are then transferred individually to a personnel calculation rule for processing. After processing, the new results are inserted in the internal table TOP. There are no more time pairs in TIP at this stage.

TOP is renamed as TIP for the next function, so that further processing can be performed from a different perspective.

The Internal Table TZP

Definition

The internal table TZP is only used in time evaluation. The planned specifications from the employee's personal work schedule are stored in TZP.

Any substitutions, which overwrite the employee's personal work schedule, are also taken into account.

Use

The system requires two pieces of information in order to calculate employees' time balances:

- The planned specifications

  These stipulate how the employee has to work (according to his/her work schedule).

- The actual specifications

  These indicate when the employee actually worked.

At the start of time evaluation, the planned specifications - in the form of the daily work schedule - are made accessible in table TZP. The system analyzes each point of time in the daily work schedule, and assigns it a time identifier. The time identifier denotes:

- Overtime (time outside of the daily work schedule)
- Fill time
- Core time
- Break

You can insert a PRINT TZP in the schema, after function P2011 or P2000, if you want to display the most important contents of table TZP. If you run the time evaluation report *RPTIME00* with the test utilities ON, you can check the values calculated in the log.

Structure

The Internal Table TZP

Column/field	Meaning
CLOCK TIME	**Time point:** The daily work schedule specifies start times for breaks, core time and so on as decimalized values. Times outside of the daily work schedule are also taken into account.

CODE	A **time identifier** is assigned to each time point to describe its place in the daily work schedule. The breaks are taken from the work break schedule that is assigned to the daily work schedule. 

Time point	**Time identifier**
000000	01 Time outside of daily work schedule
080000	02 Fill time
090000	03 Core time
095000	04 Core time break
100000	03 Core time

BLOCK	This field is currently of no significance.
PDBEZ	**Duration of paid break** The duration of the paid break period is specified. The time wage types formed from this information are evaluated in payroll.
PDUNB	**Duration of unpaid break** The duration of the unpaid break period is specified.

Further values which are accessible in TZP:

PTYP1	**Break type 1** is stored in the work break schedule (T550P). The *break type 1* field indicates whether the break is during planned working time or overtime. The *break type 1* can be processed separately using function PBRKS.

The Internal Table TZP

PTYP2	**Break type 2** is stored in the work break schedule (T550P) and is user-definable. The *break type 2* can be processed separately using function PBRKS. Special break processing can be performed for certain employees or employee groupings.

The Internal Table TES

Definition

All time types that are formed or processed in schema processing are stored in the internal table TES (daily balances) during time evaluation. All calculated balances are stored in TES.

Use

In order to form daily balances, the time types [Ext.] that have been assigned to the time pairs in table TIP are cumulated and converted to other time types. These time types are stored in table TES.

Balance formation

Table TIP		Table TES
Time type 0110	*is stored in table TES as follows:*	0100 = Fill time
→ *Fill time*		0010 = Attendance
→ *Attendance*		0003 = Skeleton time

The balances can be updated in table ZES (daily balances) and in table SALDO (monthly balances).

The internal table TES: Daily results of daily balances

In the example, the employee worked 2 hours of overtime on the selected day.

Time type	Text	Number
0000	Utility time type 1	8.0000
0001	Utility time type 2	10.0000
0042	Overtime to compensate	2.0000
0110	Fill time attendance	3.7500
0100	Fill time	3.7500
0010	Attendance	8.0000
0003	Skeleton time	8.0000
0210	Core time attendance	4.2500
0200	Core time	4.2500
0500	Break	1.0000
0040	Overtime worked	2.0000

The Internal Table TES

0002	Planned time	8.0000
0005	Flextime balance	0.0000
0050	Productive hours	10.0000

The Internal Table ZML

Definition

The internal table ZML serves as an interim table in time evaluation. All overtime wage types are stored in ZML during time evaluation.

Use

Table ZML is processed when overtime is compensated (function POVT).

The *overtime compensation type* indicates whether overtime should be remunerated or compensated by time off. The overtime compensation type can be entered for an overtime record in the *Attendance Quotas* (2007) and *Overtime* (2005) infotypes, or is stored for the wage type in processing class 17.

If the overtime is to be remunerated, a wage type is generated and inserted in table DZL. If the employee is granted time off for overtime, the system forms an absence quota.

Structure

The internal table ZML

Column/field	Meaning	
BTime	**Start of overtime**	
ETime	**End of overtime**	
Wage Type	**Wage type**	
Comp	***Overtime compensation type***:	
	BLANK	Remuneration
	1	Remuneration
	2	Basic pay
	3	Compensation (time off)
I	**IFTYP** Wage types are flagged using an IFTYP. The standard identifiers are: S - planned work M - overtime A - absence	

The Internal Table ZML

AL	Pointer to an alternative payment
C1	Pointer to cost distribution
AB	Pointer to absence pairs
Number	Number of hours

The Internal Table DZL

Definition

All wage types that are generated during time evaluation are stored in the internal table DZL for each employee and day.

The wage types are updated to table ZL using function CUMBT.

Structure

The internal table DZL

Column/field	Meaning	
Date	Date for which the wage type has been generated	
BTime	Start time	
ETime	End time	
Wage Type	Wage type	
I	Wage types are flagged using an IFTYP. The IFTYP indicates the type of work.	
	IFTYP	**Meaning**
	S	Planned work
	M	Overtime
	A	Absence
AL	Pointer to alternative payment	
C1	Pointer to cost distribution	
AB	Pointer to absence pairs	
Number	Number of hours	

Clusters

Definition

A data cluster is a grouping of several data objects. Elementary fields, field strings and internal tables can be grouped in a data cluster.

Use

Clusters B1 and B2 in files PCL1 and PCL2 are relevant to time evaluation, as is cluster PS, which stores the generated schema.

Cluster B1

Definition

All clusters for entry data are contained in file PCL1. This also includes cluster B1, which stores several tables containing information on the employee's time events and on status data for time evaluation.

- Unprocessed time events
- Error table ERT
- Selected monthly balances
- Table QT, which contains various status fields for time evaluation

Use

If the results of time evaluation are not clear, you can use cluster reports to display the data determined. Report *RPCLSTB1* allows you to view the data in cluster B1, arranged into tables.

You can also view cluster B1 via the *Time Management pool*. You can display the content of cluster B1 tables for individual employees in the *Error handling* transaction by choosing → *Goto* → *Evaluation result*.

Structure

File PCL1 contains only temporary clusters. Cluster B1 tables are only filled if the data contained in them has not yet been processed by the time evaluation report.

Internal Tables in Cluster B1

Balances, wage types and quota transactions

Table

NT1	Table NT1 contains pointers to all unprocessed time events. It is used in pair formation, and to recognize the necessity for a recalculation. The time events are stored in table TEVEN.
NT2	Table NT2 contains pointers to time events that lead to a processing error.
ERT	Table ERT contains the messages from the last evaluation run.  For information on the various types of message, see Grouping Messages [Page 494].

Cluster B1

NCT	Table NCT contains date specifications for days for which the entire pair formation process must be carried out again.
IFT1	Table IFT1 is only used internally by SAP.
IFT2	Table IFT2 is the interface table to Incentive Wages. It describes the changes in table WST (time tickets, other documents) from cluster B2 to the time tickets that have already been updated in Incentive Wages. Further information can be found in the documentation on *Integration with Logistics - Plant Data Collection* under the section Posting Time Tickets to Incentive Wages [Page 618].
ST	Table ST contains selected balances which are transferred to the time recording systems for employees' information the next time a download is performed.
QT	Table QT contains various items of information which must be updated daily, for example: • Date of the last day for which pair formation and generation was carried out • Start and end of planned working time, public holiday class, day type and daily work schedule class of the day in question

Cluster B2

Definition

File PCL2 contains the clusters for time evaluation result data. This includes Cluster B2, which stores the result tables of time evaluation. These tables contain information on

- Basic data and work schedule
- Balances, wage types and quotas
- Time pairs and time tickets
- Time data
- Evaluation status

Use

If the results of time evaluation are not clear, you can use cluster reports to display the data determined. Report *RPCLSTB2* allows you to view the data in Cluster B2, arranged into tables.

You can also view Cluster B2 via the *Time Management pool*. You can display the content of cluster B2 tables for individual employees in the *Error handling* transaction by choosing → *Goto* → *Evaluation result*.

Structure

The data in Cluster B2 is stored for individual personnel numbers and periods.

You can determine the period used for time evaluation in the Customizing settings. See also: *Define accounting periods* in the Implementation Guide.

The clusters in file PCL2 are permanent. Data remains in Cluster B2 until the cluster is reorganized. This allows you to view all data ever recorded and processed for an employee and to repeat time evaluation runs for test purposes. Evaluations are based on the data in cluster B2.

Tables in Cluster B2

Basic data and work schedule

Table	
WPBP	Table WPBP contains data on the employee's work center and basic pay.
PSP	Table PSP contains data on the employee's personal work schedule for each day.

Balances, wage types and quota transactions

Table	
ZES	Table ZES contains daily balances.
SALDO	Table SALDO stores all cumulated balances. The balances are added from table TES to SALDO in month-end processing.
ZKO	All quota transactions of the period are stored in table ZKO.
ZL	Table ZL represents the interface between time evaluation and payroll. The existing time wage types have been derived via time wage type selection using the *Time Wage Type Selection Rule* table (T510S). The entries in table ZL contain pointers to the following tables: ALP - alternative payment C1 - cost distribution AB - absences An IFTYP is specified for the selected time wage types. The IFTYP is an indicator for payroll. It describes the origin of the wage type: S - planned work M - overtime A - absence
ALP	Table ALP contains the specifications on a different rate of payment

C1	Table C1 contains cost distribution specifications (account assignment).
VS	Table VS contains variable balances which can be defined by the user. These balances can be entered in the table during time evaluation using operation ADDVS, where they are available for customer-specific evaluations.
CVS	Table CVS contains the cumulated balances from table VS. Table CVS is filled automatically.
FEHLER	All messages generated during time evaluation are stored in table FEHLER.  For information on the various types of message, see Grouping Messages [Page 494].
KNTAG	The string KNTAG shows whether or not the employee performs core night work. (Germany only)

Automatic accrual of absence quotas

Table	
QTACC	Table QTACC contains the accrual entitlements that were generated by time evaluation on the relevant date of the accrual. You can view detailed information on the generation by double-clicking the appropriate line.
QTBASE	Table QTBASE contains the information on the base entitlement that was used as a basis for calculating the accrual entitlements. Any changes to the base entitlement within an accrual period are flagged accordingly.
QTTRANS	Table QTTRANS indicates the status of the transfer pool for each day. The cumulated entitlements are indicated until they have been transferred to the *Absence Quotas* infotype (2006) or until the entitlement has expired. You can view detailed information on the transfer pool and on the transfer by double-clicking the appropriate line.

Tables in Cluster B2

URLAN	Table URLAN contains information on the updating of the *Leave Entitlement* infotype (0005).

Time pairs and time tickets

Table	
PT	Table PT contains the time pairs generated in pair formation. This table is only required if you use time recording systems.
WST	Table WST contains the generated time tickets
CWST	Table CWST contains the cumulated time tickets
AT	Table AT is an assignment table which links time pairs and time tickets.

Time data

Table	
AB	Table AB contains all absences
ANWES	Table ANWES contains all attendances which have been entered using the *Attendances* infotype (2002).
VERT	Table VERT contains all substitutions entered in the *Substitutions* infotype (2003)
RUFB	Table RUFB contains all availability records entered in the *Availability* infotype (2004)
MEHR	Table MEHR contains all overtime data entered in the *Overtime* infotype (2005)
ABWKONTI	Table ABWKONTI contains all absence quotas from the *Absence Quotas* infotype (2006)

ANWKONTI	Table ANKONTI contains all attendance approvals from the *Attendance Quotas* infotype (2007).
SKO	Table SKO contains all time transfer specifications recorded in the *Time Transfer Specifications* infotype (2012)

Status information

Table	
BEZUG	This table shows the recalculation dates for time evaluation, the time statement and a third-party payroll system.

Incentive Wages

Purpose

This component is implemented for performance-oriented remuneration. The following forms of remuneration are covered:

- Time wages
- Premium wages
- Piecework wages

You can implement both individual incentive wages and group incentive wages.

Implementation Considerations

Install this component if you want to:

- Transfer employee-related data from a *Logistics* system to *Human Resources*, or
- Maintain employee performance-related data manually,

and you want to valuate this data in the *Payroll* component according to each employee's performance.

Integration

Employee-related data can be transferred to *Incentive Wages* from the following *Logistics* components:

- *Production Planning and Control/Production Planning for Process Industries (PP/PP-PI)*
- *Plant Maintenance and Customer Service (PM/CS)*
- *Project System (PS)*

The *Incentive Wages* component is highly integrated with the *Payroll* component. Data determined by *Incentive Wages* is processed using personnel calculation rules in *Payroll.*

Features

Incentive Wages automatically reads employee-related data from a *Logistics* system, prepares the data according to the form of remuneration, and makes it available to the *Payroll* component. The valuated remuneration elements can be transferred from *Payroll* to *Financial Accounting* (FI) and, from there, to *Controlling* (CO).

It is also possible to make manual corrections within the automated process.

You can also record incentive wages data without integration to *Logistics.*

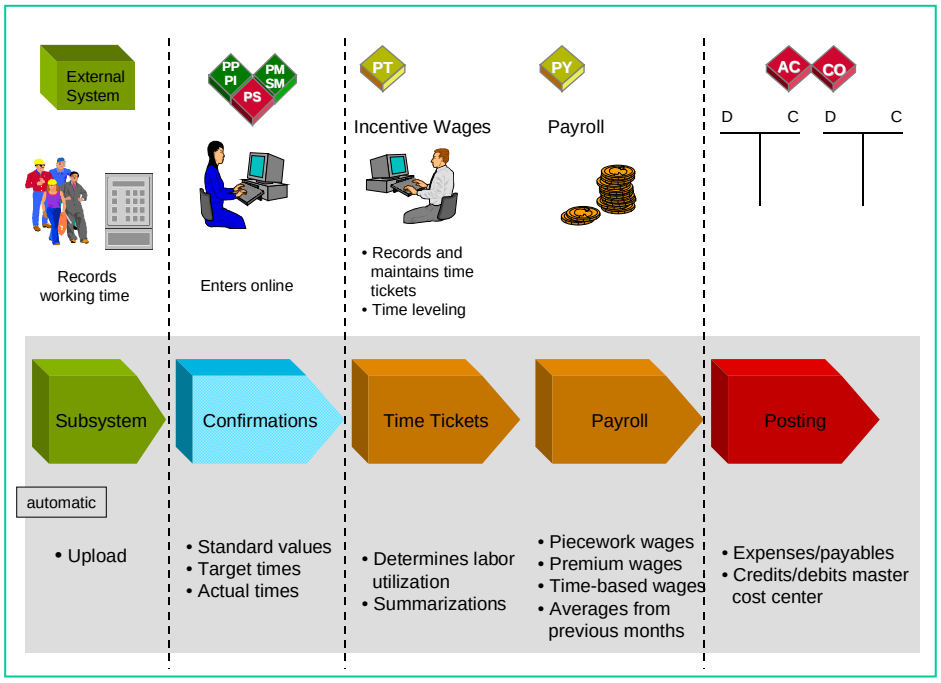
Evaluations are available before and after payroll.

Incentive Wages: Processes

Purpose

You can set up performance-based remuneration for your employees using this process. Performance-related employee data is either transferred as confirmations from *SAP Logistics* or recorded directly as time tickets in *SAP Incentive Wages*.

Process flow



1. Employees record confirmations regarding the completion of *Logistics* orders issued at an external plant data collection terminal.
2. Confirmations are transferred to each *Logistics* system. There the confirmations are processed further.

   Confirmations can also be recorded directly in *Logistics*. You do not have to use an external PDC System to get confirmations in the SAP System.
3. Confirmation values (actual values) as well as their corresponding standard values are transferred to *Incentive Wages* and stored as time tickets.
4. Additional time tickets can be recorded and processed in *Incentive Wages*.

   Time tickets directly recorded in *Incentive Wages* are not transferred to the *Logistics* system.

Incentive Wages: Processes

5. Summarizations are performed when time tickets are recorded or transferred. Actual and target times, as well as labor utilization rates are summarized.
6. The summarized values are available before *SAP Payroll* for evaluations and time leveling.
7. *Incentive Wages* is an integrated element of *Payroll*. Time tickets are monetarily valuated in the gross part of *Payroll*.
8. Account assignment information on the time tickets is included in the transfer to *SAP Financial Accounting* and *SAP Controlling*.

Incentive Wages can also be implemented without any *Logistics* integration.

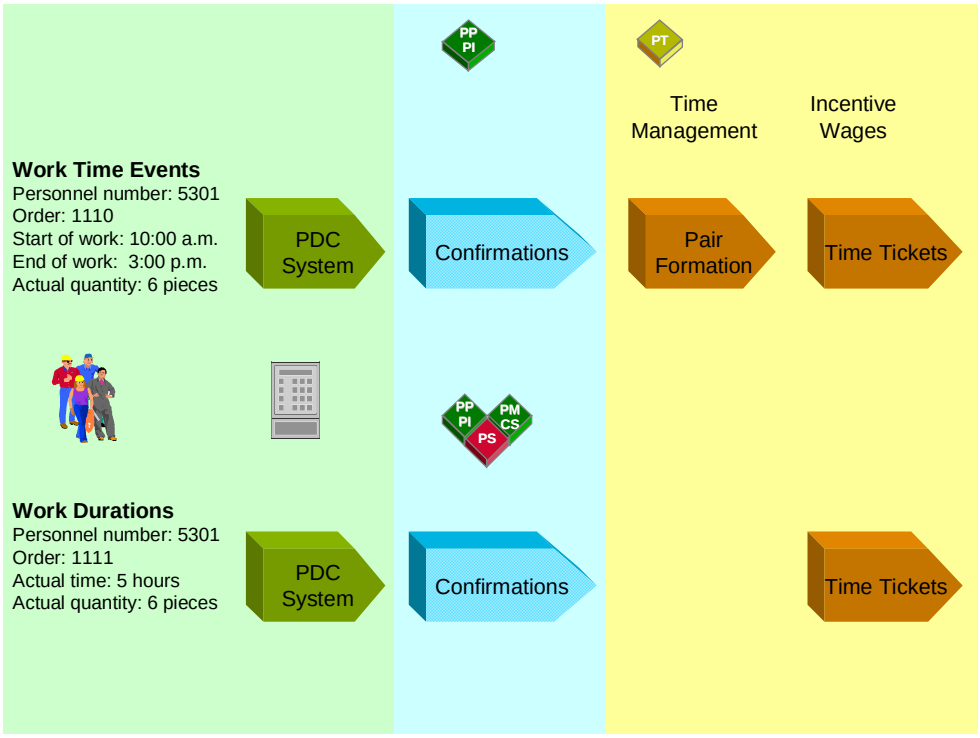
Transferring Data from *SAP Logistics*

Use

Order confirmations from *SAP Logistics* can be transferred to *SAP Incentive Wages*. The data used to valuate employee performance is stored in time tickets in *SAP Incentive Wages*.

Integration

There are two variants for integration with *SAP Logistics*.



1. If confirmations are recorded and processed as work time events on a Plant Data Collection (PDC) system, than the data can be transferred to *SAP Incentive Wages* using the *Production Planning* (PP) and *Process Industry* (PP-PI) components.
2. If confirmations are recorded and processed as durations on a PDC system, than the data can be transferred to *SAP Incentive Wages* using the *Production Planning* (PP), *Process Industry* (PP-PI), *Plant Maintenance* and *Customer Service* (PM/CS) components.

For more information, see Plant Data Collection (PDC) [Page 608].

Plant Data Collection (PDC)

Purpose

This component controls the transfer of confirmations to *SAP Time Management* from the following SAP application components:

- *SAP Production Planning* (PP) and *Process Control* (PP/PI)
- *SAP Plant Maintenance* and *SAP Customer Service* (PM/CS)
- *SAP Project System* (PS)

Implementation Considerations

Confirmations recorded in *SAP Logistics* describe the progress of a job and are used for planning and controlling in *Logistics*. They also document the performance of the employee who carried out the work. This data affects the employee's remuneration.

Plant data collection transfers the relevant employee data from the above *Logistics* application components to *Time Management*. This reduces the work involved in data entry.

An additional advantage is that target values and specifications are also transferred from *Logistics* along with the actual data. In this way, labor utilization rates can be determined when time tickets are created in *Incentive Wages*. The labor utilization rate affects the rate of remuneration, especially in piecework and premium wages.

Integration

When the confirmations are transferred from *Logistics* to *Time Management*, the data is written either to table EVHR or table LSHR. A plant data sequence number (PDSNR) is assigned to each entry in the tables.

Time wage types are formed during time evaluation in the *Time Management* component to be included in the gross calculation in *Payroll*. They are referenced in the gross part of payroll.

Time ticket data from *Incentive Wages* is also referenced in the relevant wage types in the gross part of payroll.

The data determined in the *Time Management* component can be accessed by the *Payroll* component. The *Payroll* data can be transferred to *SAP Controlling* for cost accounting.

Features

Logistics confirmations must be recorded with a personnel number or ID number if they are to be transferred to *Time Management*.

There are two methods of transferring data from *Logistics* to *Time Management*:

2. The confirmations recorded in *Logistics* are ***time event-related***. The transferred data is stored in table EVHR in *Time Management*. The confirmations are then posted as work time events to the *Time Events* infotype (2011). Time tickets are generated from the work time events and can be transferred to *Incentive Wages* if required.

This procedure is only used if posting confirmations from *Production Planning and Control* (PP).

3. The ***processing duration*** of production orders, maintenance orders, networks, and so on, is confirmed in *Logistics*. In other words, the confirmation specifies the time worked as a number of hours. The transferred data is stored in table LSHR in *Time Management*. The data can either be posted to *Incentive Wages* as time tickets, or to the *Attendances* infotype (2002) as attendances.

   You can only use this procedure if *Time Management* is integrated with all of the above *Logistics* components.

In most cases, confirmations are recorded at front-end time recording systems for plant data collection and uploaded to the relevant *Logistics* components in the SAP System. Certified interfaces provide the connection to the subsystem.

Data can also be recorded online in *Logistics*.

Subsystem Connection

Use

You can use this function to carry out various uploading and downloading processes from external time recording systems, as well as to manually transfer data from *SAP Logistics*. In addition, a log of the communications between the systems is also available.

Integration

This function is available for both Personnel Time Events [Page 351] and Plant Data Collection [Page 608].

Features

- The *Communications Log* contains an overview of all of the data transactions between the external systems and *SAP Time Management*.
- Reports necessary for downloading and uploading, as well as posting of time events to *Time Management* can be run via Time Events [Page 357].
- Reports necessary for downloading and uploading, as well as posting of employee expenditures to *Time Management* can be run via Employee Expenditures [Page 371].
- Reports required to retrieve either work time events or durations (time tickets) from *SAP Logistics* can be run from *Integration with Logistics*. The corrected actual times can also be transferred to *Logistics*.

Activities

You can jump directly to the Time Management pool [Page 553] in *Time Management* from this function.

If you have set the communications parameters [Page 355] to *Parallel operation*, the applicable reports used for the data transfer of Communication Channel (CC1) *(from Release 3.0A)* appear. You also have a communication log available here.

Processing Work Time Events

Purpose

Time event-related confirmations recorded in the *Production Planning and Control/Process Industries* (PP/PI) components are posted as work time events to the *Time Events* infotype (2011) in *Time Management*. Time tickets are generated from the work time events and can be transferred to *Incentive Wages* if required.

Actual times are determined during pair formation in *Time Management*. If different work schedule rules are assigned to the employees, this is taken into account when calculating the actual times for past periods by performing a recalculation.

Pair formation also occurs in *Logistics* to calculate employee working time. However, work schedules in *Time Management* are not taken into account here. As a result, the differences resulting from pair formation in *Time Management* and *Logistics* are returned to the appropriate *Logistics* system.

Prerequisites

The confirmation data has been transferred from *Production Planning and Control* to *Time Management.* On the basis of the record type, the system has decided to process the work time events using table EVHR.

Confirmations that were not transferred successfully can be processed using the *Time Management* pool. An example of an error is a missing record type, making it impossible to assign the confirmation to EVHR or LSHR.

The *activity types* must be assigned the appropriate incentive wages indicators in *Production Planning and Control*. These settings are made for each existing work center. For more information, see Calculations [Ext.].

Process Flow

3. The **Post Work Time Events from CC2** (SAPCDT46) starts the processing.

   Using existing person time events and work time events, time pairs are formed and time tickets are generated. The duration between two work time events is calculated from the employee's daily work schedule and breaks, and written to the last work time event.

4. Once all validations and processing steps have been successfully completed, the time events and related information are saved to the database:

- The time pairs and time tickets are saved separately for each employee and period to tables PT (pair table), WST (time tickets), and AT (link table) in cluster B2, database PCL2.

  You can check the tables using the **Display Cluster B2 of Database PCL2** (RPCLSTB2) report.

- The time events are saved in table TEVEN. The *personnel number*, *date*, *time*, *time event type*, and *previous day indicator* fields are the main fields in table TEVEN. For work time events, data is also saved in table TEVEN_MORE. This table contains the *Logistics order*, *operation*, *quantity*, *target time, standard data,* and *work center* fields. The link between the tables is established by the PDSNR number assigned at the start.

- The processed time events are deleted from table EVHR.

6. If there is a time event that could not be processed as the personnel number was already locked by another transaction, it remains in table EVHR and is processed the next time.
7. Work time events with errors are stored in a pool and deleted from table EVHR. You can display, post or delete the pools by choosing *Time Management* → *Pool* → *Subsystem*.
8. Any differences resulting from comparing pair formation in both *Time Management* and *Logistics* are transferred to *Logistics*. In this way, working times based on work schedules in *Time Management* are available in *Logistics*.

Result

On the one hand, generated time tickets are linked with work time events. They are also linked with the time pair as well.

The generated time tickets can be passed on to *Incentive Wages*. In this case, planning data is read from *Logistics* and entered in the time ticket, enabling a performance-based valuation in *Payroll*.

If the *Logistics* confirmations contain information on the cost centers to be debited, this data is included in *Time Evaluation* and in *Incentive Wages*, and is also passed on to *Payroll*.

Pair Formation and Time Ticket Generation

Use

The pair formation function determines actual times and generates time tickets.

Integration

Pair formation is also carried out for person time events.

For more information on pair formation, see Pair Formation [Page 406]

Prerequisites

Pair formation for work time events is carried out when the entries in table EVHR are processed. Processing is started using the report *Post Work Time Events from CC2* (SAPCDT46). To start the process automatically, carry out the *Schedule Posting Of Work Time Events* step in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

Features

The work time events are read from table EVHR.

The work time events open and close pairs. This information is updated in the pair table PT.

Time tickets are also opened, updated, and closed. Time tickets are saved to the time ticket table WST. The most important information in a time ticket is the time worked between two (or more) time events. The time ticket also contains a reference back to the processed order in the form of the PDSNR number.

The assignment of time tickets to pairs is specified in the link table AT.

You can check the tables using the report *Display Cluster B2 of DB PCL2* (RPCLSTB2).

Example: Pair Formation and Generating Time Tickets

The following is an example to illustrate how information derived from time events is stored in tables.

In the example, work time events from Communication Channel 2 (CC2) are used, that is, the data comprises completion confirmations from PP.

Times are processed including seconds. In the following examples, the times are specified without seconds for the sake of clarity. The date has also been omitted.

Pair formation and time ticket generation using an example

A notification of set up begin for 06:00 is to be processed for an employee. There are no further time events for the day in question.

The following entries are made in the pair table PT:

From - To	Pair type	Status from pair formation
____ - 06:00	1 (at work)	2 (no clock-in)
06:00 - ____	1 (at work)	E (no end notification)

The following entry is created in the time ticket table WST:

From - To	Labor time	Setup time
06:00 - ____	0.00 hrs	0.00 hrs

The following entry is in the link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up

The system now receives a clock-in posting for 05:55. This means that the entries in the pair table PT are as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - ____	1 (at work)	E (no end notification)

No changes are made to tables WST and AT.

The system now processes a setup end notification for 07:00 and a work begin notification for 07:06

The entries in the pair table PT are then as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK

07:06 - ____	1 (at work)	E (no end notification)

The following is added to the existing entry in time ticket table WST:

From - To	Labor time	Setup time
06:00 - 07:06	0.00 hrs	1.00 hrs

The entry in the link table AT is as follows:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor

The system now processes a work end notification for 10:00.

The entries for the day in the pair table PT are then as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK
07:06 - 10:00	1 (at work)	BLANK
10:00 - ____	1 (at work)	3 (no clock-out posting)

The following is added to the existing entry in the time ticket table WST:

From - To	Labor time	Setup time
06:00 - 10:00	2.40 hrs	1.00 hrs

No changes are made to the entries in the link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor

Finally, the system processes a work begin notification for 10:30 and a work end notification for 11:00.

The entries for the day in pair table PT are as follows:

From - To	Pair type	Status from pair formation
05:55 - 06:00	1 (at work)	BLANK
06:00 - 07:00	1 (at work)	BLANK
07:00 - 07:06	1 (at work)	BLANK
07:06 - 10:00	1 (at work)	BLANK
10:00 - 11:00	1 (at work)	BLANK
11:00 - ____	1 (at work)	3 (no clock-out posting)

A new entry is created in the time ticket table:

Example: Pair Formation and Generating Time Tickets

From - To	Labor time	Setup time
06:00 - 10:00	2.40 hrs	1.00 hrs
10:30 - 11:00	0.50 hrs	0.00 hrs

An entry is also added to link table AT:

Line PT	Line WST	Status labor/setup time
2	1	Set up
4	1	Labor
6	2	Labor

The employee’s daily work schedule is used as the basis for calculating actual times. In the above example, the employee has a break of 30 minutes during the period from 07:06 to 10:00.

Processing Time Tickets in Time Evaluation

Use

Time wage types are generated in time evaluation, taking account of the account assignment splits in the generated time tickets. The information on cost accounting is also passed on when the time tickets are transferred to Incentive Wages. This ensures that actual costs from *SAP Payroll* are debited in *SAP Controlling* (CO) to cost centers or orders specified in *SAP Logistics*.

Integration

The account assignment splits are passed on to *SAP Payroll* together with the time wage types.

Prerequisites

The time tickets have already been generated in pair formation and saved to table WST in cluster B2.

Features

The pair table PT is imported to the work table TIP in time evaluation. An account assignment split (C1 split) is assigned to each time pair that is linked with a time ticket in table WST. The account assignment is transferred to table C1. The account assignment split points to this entry. This means that all time wage types generated from this time pair also inherit the account assignment split.

Posting Time Tickets to Incentive Wages

Use

Time tickets must be posted to incentive wages so that the relevant employees can be remunerated on the basis of their performance. This affects particularly those employees who work in piecework or premium wages.

Integration

The generated time tickets can then be processed in the time ticket maintenance transaction in incentive wages.

The results of incentive wages are read in *SAP Payroll* from the relevant wage types, and then transferred to *SAP Controlling* (CO).

Prerequisites

The time tickets have already been generated in pair formation and saved to table WST in cluster B2.

The posting of time tickets to incentive wages is set up in the *Maintain Settings for Pair Formation* step in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

In the above step, you can decide whether the posting of time tickets should:

- Be deactivated
- Take place when time tickets are generated
- Not take place until time evaluation is run

The relevant field must be activated in the *Post PDC Time Tickets* step.

Features

Before a day is processed, the status of table WST is frozen so that it can be compared to the status after processing. The comparison shows that new time tickets have been generated, or that time tickets that had already been posted have been changed or deleted. On the basis of this comparison, time tickets to be added or deleted are placed in the interface table IFT2 in cluster B1. New time tickets are entered as copies in the table. A deletion entry and a create entry are generated for time tickets that were changed.

When the time tickets are actually posted, the time ticket generated earlier is deleted on the basis of the deletion entries in table IFT2. New time tickets are supplemented by the target times from Logistics. The target times are determined from the confirmed quantity. The labor utilization rate is calculated from the actual and target times using the calculation rules specified in incentive wages. The time ticket is indicated as “generated,” and the entries in table IFT2 are deleted.

If a time ticket that is to be deleted or changed has been changed manually, an error message is generated in table ERT in cluster B1. The entries remain in table IFT2. The time data administrator can correct this inconsistency by using the *error handling* function from the *Time Management pool.*

An error is also generated if validation in incentive wages is not successful. In this case, the work time events on which the validation was based must be corrected. Corrections can also be carried out using the *error handling* function from the *Time Management pool*.

Example: Performing an Update in Incentive Wages

The following example illustrates how a time ticket is updated in incentive wages.

Updating a Newly Generated Time Ticket in Incentive Wages

Table WST contains a time ticket which was generated during processing of the work time events from table EVHR.

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	Y (earmark for update)

The value *Upd* = Y means that the time ticket is to be updated in incentive wages but that this has not yet occurred.

Since this time ticket did not exist before processing, the system creates an entry in table IFT2 and marks the time ticket as transferred in table WST:

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	X (transferred)

Table IFT2

From - To	Labor time	Quantity	Operation
06:00 - 07:00	1.00 hr	10 pieces	Insert

After the update has been performed successfully, the entry in table IFT2 is deleted and the entry in WST remains as above.

Updating Changes to a Time Ticket in Incentive Wages

The next example illustrates how changes to a time ticket are updated in Incentive Wages.

The example is based on the following scenario:

Before processing is started, table WST contains a time ticket which has been passed on to table IFT2. Since table IFT2 no longer contains any entries, there is an incentive wage time ticket.

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	10 pieces	X (transferred)

The time ticket changes due to the processing of a new work time event.

For example, a partial completion confirmation is received at 06:30 for 5 pieces, or the number of pieces from the work end notification at 07:00 was corrected manually to 15 pieces.

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	15 pieces	Y (earmark for update)

Due to the changes, the system generates two entries in table IFT2 and marks the time ticket in table WST as transferred:

Table WST

From - To	Labor time	Quantity	Upd
06:00 - 07:00	1.00 hr	15 pc.	X (transferred)

Table IFT

From - To	Labor time	Quantity	Operation
06:00 - 07:00	1.00 hr	10 pieces	Delete
06:00 - 07:00	1.00 hr	15 pieces	Insert

After the original incentive wage time ticket was successfully deleted and the new one successfully inserted, the entries in table IFT2 are deleted.

Processing Durations

Purpose

Confirmations recorded in *Logistics* as durations are posted to *Time Management* as attendances in the *Attendances* infotype (2002), or to *Incentive Wages* as time tickets.

The actual times are determined in *Logistics* and transferred to *Time Management* as durations.

Prerequisites

The confirmation data has been transferred from *Logistics* to *Time Management*. Based on the record type, the system processes the durations using table LSHR. The confirmations have been recorded in *Logistics* with a personnel number.

Confirmations transferred unsuccessfully can be processed using the *Time Management* pool. An example of an error is a missing record type, making it impossible to assign the confirmation to EVHR or LSHR.

The *activity types* must be assigned the appropriate incentive wages indicators in *Production Planning and Control*. These settings are made for each existing work center. For more information, see Calculations [Ext.].

Process Flow

4. Data from LSHR is read by the **Integration with Logistics: Read Interface File and Generate Session** (RPWI1100) report and placed in a background job. A posting destination is determined in the report, that is, whether the confirmations should be posted as time tickets to *Incentive Wages* or as attendances to the *Attendances* infotype (2002).
5. Report RPWI2000 processes the session posts the confirmations.
6. The interface table LSHR must be reorganized periodically using the **Integration with Logistics: Reorganize Interface File** (RPWI4100) report.

Result

Time tickets are saved to cluster L1 for individual incentive wages and cluster G1 for group incentive wages. Attendances are updated in the *Attendances* infotype (2002).

Posting Confirmations as Attendances

Use

Using batch input processing, confirmations can be posted to *SAP Time Management* as *attendances* (infotype 2002). Confirmations from *Plant Maintenance and Service Management* (PM) and *Project System* (PS) are usually posted as *attendances* as they do not generally involve performance-based remuneration such as in piecework, for example.

Integration

The posted confirmations can be maintained in the *Attendances* infotype (2002).

Prerequisites

The transferred confirmations must be in the interface table LSHR.

Features

Using the report *Integration with Logistics: Read Interface File and Generate Session* (RPWI1100), the confirmations are read from file LSHR and placed in a batch input session. You specify *Attendances* as the posting destination on the report selection screen.

The batch input session is processed using the report *Batch Input: Process Sessions in Batch* (RPWI2000), and the confirmations are posted to *SAP Time Management* as *Attendances*.

The process of retrieving and posting the confirmations can be started automatically if you want to retrieve the confirmations once daily, overnight, for example. You simply schedule a job that starts the reports *Integration with Logistics: Read Interface File and Generate Session* (RPWI1100) and *Batch Input: Process Sessions in Batch* (RPWI2000) in two steps.

Likewise, you can reorganize the interface table automatically by scheduling the report *Integration with Logistics: Reorganize Interface File* (RPWI4100) as above.

Activities

To start the process automatically, please carry out the steps *Schedule Retrieval of Confirmations* and *Schedule Reorganization of Interface Table* in the Customizing section of the Implementation Guide (IMG) for **Personnel Time Management**.

Using Background Jobs to Post Confirmations as Time Tickets

Use

You can post confirmations to *Incentive Wages* using background processing. Confirmations from *Production Planning and Control* are posted as time tickets if remuneration is performance-based (as in piecework wages).

Integration

The transferred confirmations can then be processed in time ticket maintenance in *Incentive Wages*.

Prerequisites

Work centers must have the applicable incentive wages indicators in the *Logistics* master data in the calculation area.

The transferred confirmations must be in the interface table LSHR.

Features

The **Integration with Logistics: Read Interface File and Generate Session** (PRWI1100) report reads the confirmations from the LSHR file and places them in a batch input session. You specify *Time tickets* as the posting destination on the report selection screen.

The batch input session created is run by the **Batch Input Session: Run Sessions in Batch** (RPWI2000) report and the confirmations are posted to the appropriate destination as time tickets in *Incentive Wages*.

The process of retrieving and posting the confirmations can be started automatically if you want to retrieve the confirmations once daily, overnight, for example. You simply schedule a job that starts the **RPWI1100** and **RPWI2000** reports in two steps.

You can also reorganize the interface table automatically by scheduling the **Integration with Logistics: Reorganize Interface File** (RPWI4100) report.

Activities

To start the process automatically, carry out the Customizing steps *Schedule retrieval of confirmations* and *Schedule reorganization of interface table* in the Implementation Guide (IMG) for Time Management.

Posting Confirmations Online as Time Tickets

Use

You can access specific confirmations online and post them to *Incentive Wages* as time tickets. This might be necessary if an employee only wants certain time tickets to be passed on to payroll, for example.

Integration

Confirmations that have been retrieved online and posted as time tickets can be processed using the time ticket maintenance transaction in Incentive Wages.

Prerequisites

Work centers must have the applicable incentive wages indicators in the *Logistics* master data in the calculation area.

The transferred confirmations must be in the interface table LSHR.

Activities

The *Retrieve confirmations* switch must be activated in the step *Maintain incentive wage parameters.*

Retrieving confirmations and creating time tickets

Procedure

7. Choose *Human Resources ??Time Management ??Incentive Wages ??Time Tickets ??Maintain*. The *Maintain Incentive Wages Data* screen appears.
8. Choose *Action ??Retrieve confirmations*.
9. Enter the selection criteria (for example, order number) for the confirmations you want to retrieve.
10. Choose *Confirm*. A list of the selected confirmations is displayed.
11. Select the confirmations you want to retrieve from the list, and choose *Retrieve*.

    Time tickets are now generated from the retrieved confirmations.

    If you want to change a time ticket during the retrieval process, select the relevant time ticket on the selection screen and select *Choose*.
12. Choose *Save*.

Result

Confirmations are retrieved from *Production Planning and Control* and stored in *Time Management* as time tickets. The retrieved time tickets are assigned the origin indicator "P."

Time Tickets

Definition

Time tickets are recording and maintenance documents for incentive wages data. Information concerning work performed and to be compensated is represented on the time tickets.

Use

Time tickets are either automatically created or recorded manually in *SAP Incentive Wages* depending on whether integration with *SAP Logistics* exists. Time tickets automatically created (that is, transferred from *Logistics*) are indicated as such.

Time tickets can be maintained in full-screen or list screen mode. They are then used in *individual* and *group* incentive wages.

Time tickets can be processed in SAP Payroll and are thus an element of employees' brutto pay. All time ticket fields can be processed in payroll.

Certain prerequisites from SAP Personnal Administration [Page 629] must exist to maintain time tickets.

Structure

A time ticket contains the following sections for data:

- Personnel number of the employee or the group number of the group completing the work.
- Confirmation

  This section is completed, when *Logistics* integration exists. The *Logistics* order with its additional characteristics and confirmation number is displayed.
- Time Tickets
  - Result and additional payment-relevant information

    The result is determined by a premium formula. Target and confirmation values are compared in piecework or premium wages. In this case, the result is a labor utilization rate. The result can also be a premium.

    Different payments can be set up in the *Pay scale group/level* fields.
  - Account assignment information
  - Quantity specifications

    These specifications are the actual amounts to be completed within a certain time (actual time).
  - Confirmation values

    These values are the actual times that the employee or the group worked.
  - Default and target values

Time Tickets

If integration exists with *Logistics*, then the default and target values are transferred to *Incentive Wages*.

Time tickets are structured according to enterprise business requirements. These different time tickets are indicated as time ticket types.

Prerequisites from Personnel Administration

The following infotypes must be maintained for employees for whom time tickets are to be recorded:

- *Actions* (0000)
  - *Employment* field must be **activated**
- *Organizational Assignment* (0001)

  Whereby the following fields are read:
  - *Company code*
  - *Personnel area*
  - *Personnel subarea*
  - *Employee group*
  - *Employee subgroup*
- *Payroll Status* (0003)

  Whereby the following fields are read:
  - *Correction indicator*
  - *Retroactive accounting date*

The *Planned Working Time* (0007) and *Basic Pay* (0008) infotypes are only required if the actual time is calculated using the personal work schedule or if the pay scale is to be validated.

If this is the case, then the following data is necessary from these infotypes

- *Planned Working Time* (0007)
  - *Work schedule rule*
- *Basic Pay* (0008)
  - *Pay scale area*
  - *Pay scale type*
  - *Pay scale level*

Maintaining Time Tickets in Full Screens

Use

In full-screen mode, all fields are displayed on the screen for maintaining time ticket data.

Integration

List screens [Page 637] can be used for fast entry of incentive wages data.

Features

The following time ticket types are available for individual incentive wages.

- Premium time tickets
- Time-based time tickets

The following time ticket types are available for group incentive wages.

- Quantity time tickets
- Person time tickets
- Foreman time tickets

You can modify the full screens to suit your business requirements. Carry out the Customizing step *Define entry screens* in the *Time Ticket Types* section of the IMG. Make sure that the time ticket types are copied to customer-specific name ranges (9n, Xn, Yn or Zn).

If you enter a start and end time, the actual time is calculated as the difference between the two. The clock times entered are only used to calculate the actual time for recording, and are not evaluated at any other point.

If you want to include employee breaks from the daily work schedule when calculating actual time, you must first key the Customizing step *Maintain incentive wages parameters* in the IMG for *SAP Incentive Wages* accordingly.The duration calculated is not updated if the period work schedule is changed at a later date.

Recording Time Tickets

Prerequisites

Several users can record time tickets at the same time without locking the corresponding personnel numbers or group numbers. In this way, large amounts of data can be recorded quickly and efficiently. You can not display or change existing records, however.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Record*. The *Record Incentive Wages* screen appears.
2. Enter a personnel number or group number.
3. Enter the time ticket type.
4. In the *Period* field at the bottom of the screen, check the period specified.
5. If necessary, change the recording period and then choose  .
6. Choose  .

   A screen appears for recording time ticket data.
7. Enter data as required.
8. Choose  again if you want to record another time ticket. If you want to change the time ticket type, first enter the new type, and a personnel or group number, if required, in the *New time ticket type* section of the screen.

   A screen appears for recording time ticket data.

   Before you save the data records you record, you can display and check them. To do so, choose one of the following  ,  ,  , or  .
9. Choose  .

Result

Your incentive wages data is now recorded.

Selecting Time Tickets

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets*.
2. Choose *Maintain* or *Display*. The *Incentive Wages* initial screen appears.
3. Enter the time ticket type.
4. Enter a personnel or group number according to each time ticket type.
5. In the *Period* field at the bottom of the screen, check the recording period specified. An incentive wage group is always created for one specific recording period.
6. If necessary, change the recording period and then choose  .
7. Enter additional selection criteria, as required.
8. Choose  .

Result

The first of the selected time tickets appears on the screen and can be changed, if required.

If you selected several time tickets, choose  ,  ,  or  to navigate around the tickets.

You can switch from full screen to list screen at any point. Choose  or  .

Changing Time Tickets

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* screen appears.
2. Select [Page 632] the desired time tickets.
3. Make any changes required.

   If you selected several time tickets, choose  ,  ,  or  to navigate around the time tickets.
4. Choose  .

Result

You have changed existing time tickets.

Copying Time Tickets

Use

To create new time tickets that are very similar to existing ones. In this way, you only have to enter the data that differs.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* screen appears.
2. Select [Page 632] the time tickets that you want to copy.

   You have to **first** maintain the data in the time ticket that is different, **before** copying it.
3. Change the data.
4. Choose  .

   The system creates a new time ticket with the changed data. No changes were made to the original time ticket.
5. Choose  .

Result

You created a new time ticket. No changes were made to the original time ticket.

Locking and Unlocking Time Tickets

Use

You can exclude specific time tickets from *SAP Payroll* by activating lock indicators.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* screen appears.
2. Select [Page 632] the time tickets.
3. The icon above the *Confirmations* section indicates that a time ticket is already locked.

   To change the lock indicator status, choose or the menu option *Edit* → *Lock/Unlock*.

   Unlocked time tickets are now locked. Time tickets already locked are now unlocked.
4. To edit other selected time tickets, choose , , , or .
5. Choose .

Result

Lock indicators time tickets relevant for *SAP Payroll* were changed.Locked time tickets are not included in the payroll run.

Deleting Time Tickets

Use

Time tickets entered twice, or during testing, must be deleted.

If you just want to make sure that certain time tickets are not included in the next payroll run, you simply have to set the lock indicators [Page 635].

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* screen appears.
2. Select [Page 632] the time tickets.
3. Choose  .
4. If you selected several time tickets, choose  ,  ,  or  to navigate around the tickets.
5. Choose  .

Result

The time tickets were deleted. If you have selected more than one time ticket and are working in full-screen mode, time tickets are deleted separately one at a time.

Maintaining Time Tickets in List Screens

Use

List screens are used for fast entry of incentive wages data. In contrast to full screens [Page 630] where all fields are displayed for recording incentive wages data, only a portion of those fields are displayed in list screens.

Features

As in full screens, there are also specific list screens for each time ticket type.

In *individual incentive wages*, you can enter incentive wages data for one employee using a *list* or enter data for *multiple employees* using a different list.

In *group incentive wages*, you can enter incentive wages data for a group using a *list* or enter data for *multiple groups* using a different list.

You can modify the list screens to suit your business requirements. Carry out the Customizing step *Defiine entry screens* in the *Time Ticket Types* section of the IMG. Make sure that the time ticket types are copied to customer-specific name ranges (9n, Xn, Yn or Zn).

If you specify a *start* and *end time* on the list screens, the actual time is calculated as the difference between the two. The clock times entered are only used to calculate the actual time for recording, and are not evaluated at any other point.

If you want to include employee breaks from the daily work schedule when calculating actual time, you must first key the Customizing step *Maintain incentive wages parameters* in the IMG for *SAP Incentive Wages*. The duration calculated is not updated if the daily work schedule is changed at a later date.

Individual Incentive Wages

Purpose

This component is set up when you want to renumerate each employee's performance individually. The performance of other employees does not influence the amount of remuneration.

Integration

Group and individual incentive wages can be calculated parallel.

Features

In the standard SAP System, individual incentive wages is set up using premium time ticket [Page 639] and time-based time ticket [Page 640] time ticket types.

In individual incentive wages, each time ticket has its own result.

The values are already summarized during the recording process. Cumulations and result types are used in summarization. Day and period results are also available from the summarized values.

Processing Premium Time Tickets

Use

This function is used to record and maintain employee data in *individual incentive wages*. The *premium time tickets* can be used in piecework or premium wages.

Features

An individual *result* is calculated for each premium time ticket. The existing premium formula is used as the calculation basis for the result.

Read formatting incentive wages data [Page 652], if you want to know how incentive wages data is summarized for day and period results and the relationship between the individual time ticket types.

You can enter the completed quantity on the premium time tickets as well as the actual time required (*confirmation value*).

You can also enter the *target value* for the work performed. If you want to enter a yield as well as a *standard time*, the target value is calculated by the system and the target value entered is ignored.

The *target value* is calculated as follows:

$$\frac{(\text{Yield} + \text{Scrap}) \times \text{Standard Value}}{\text{Base Quantity}}$$

If no basic quantity is specified, then a quantity of 1 is calculated.

Activities

Summarizations are performed by the SAP System when premium time tickets are maintained.

Processing Time-Based Time Tickets

Use

This function is used to record and maintain employee data in *individual incentive wages*. You can use time-based time tickets record working times for renumeration as averages.

Features

You record the confirmation values (actual times) of employees on a time-based time ticket. In the standard SAP System, the time-based time ticket is automatically keyed in the recording time type MI02 (average from paid times). Time-based time ticket does not have its own result.

For more information, see formatting incentive wages data [Page 652], if you want to know how incentive wages data is summarized for day and period results and the relationship between the individual time ticket types.

This time ticket is valuated in payroll. An average is used to valuate the actual time. The pay scale provisions or collective agreement in place determine how the average is calculated. For example, the average can be based on the previous month or on the last three months.

Activities

The times to be valuated as averages can be summarized in result types.

Group Incentive Wages

Purpose

This component is set up when you want to compensate a group's performance. The performance of each group member influences the group result.

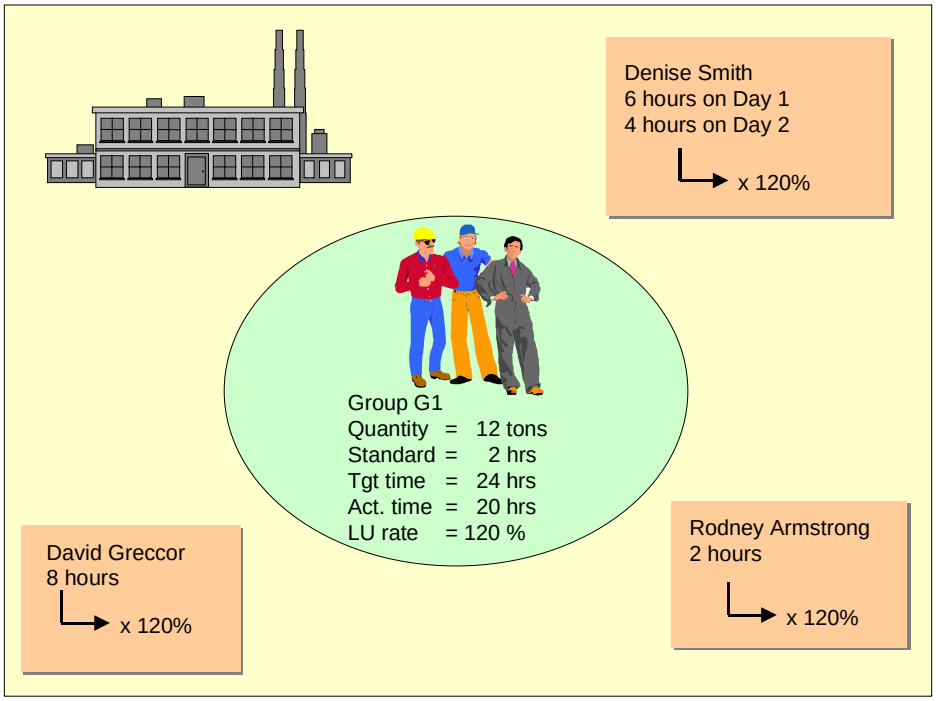
Integration

Group and individual incentive wages can be run in parallel.

Features

Remuneration for individual group members depends on the group result. The actual times worked of the individual group members are applied to the group anonymously. The actual times of the group members are cumulated for the group result. So that the individual employee's working time can be valuated, actual times are also allocated to each individual group member.

The group result depends on the existing premium formula. The target time is usually compared to the sum of the actual times.



The employees David Grecco, Denise Smith, and Rodney Armstrong belong to group G1. The group is required to charge a blast furnace. A standard value of two hours is required to produce one ton of steel. The standard time is compiled from various tasks.

Group Incentive Wages

David Grecco works eight hours for the group. Denise Smith works six hours on the first day and four hours on the second day for the group. Rodney Armstrong works two hours for the group.

Group G1 produces a total of 12 tons of steel. The group's target time is 24 hours. The cumulated actual time is 20 hours. And the labor utilization rate is 120%.

The time for each group member is valuated at 120% according to the time each employee worked for the group.

You maintain group incentive wages data with the following time ticket types in the standard SAP System.

- Quantity time tickets [Page 649]
- Person time tickets [Page 650]
- Foremen time tickets [Page 651]

Maintaining Group Data

Use

Group data must be maintained before carrying out group incentive wages. In particular, membership in groups must be specified for a *recording period*.

Prerequisites

You must complete the Customizing steps *Validate group number* and *Create groups* accordingly in the Implementation Guide (IMG) for *SAP Incentive Wages*.

Features

There are two methods to maintain group membership:

1. Explicitly adding an employee to a group
2. Automatically adding an employee during time ticket recording

Groups are always created for one recording period. Existing groups can then be copied to the next recording period.

You can set the duration of the recording period for which the employee works for the group.

You can also indicate that group members are relief workers.

Creating Groups

Use

You must first a group if you want to create group incentive wages data.

If the *Validate group participation* switch is set in the *Validate group number* step in *Customizing*, then the group can also be created during time ticket maintenance. In this case, the group does not have to be created explicitly as described here.

You can only create a group for a specific *recording period*. If you want to create the existing group for another *recording period*, see Copying Groups [Page 646].

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
2. Check the *Period* section on the screen. An incentive wage group is always created for one specific recording period.
3. If necessary, change the recording period and then choose  .
4. Enter the group number. You can only use numerical values as group numbers.
5. Choose  . The *Maintain Employees in Group* screen appears.
6. Enter the personnel numbers of the employees you want to include as members of the group in the *Pers (Personnel number)* field and then choose  .
7. Choose  .

Result

The group created is valid for the duration of a recording period. You can now record incentive wages data for this group.

Displaying Employees in Groups

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Incentive Wages: Display* initial screen appears.
2. Check the *Period* in the lower section of the screen.
3. Change the period, if necessary, and then choose .
4. Choose . The *Display Employees in Group* screen appears.
5. Enter a group number and choose .

Result

A list screen containing employees who are members of the group during the selected recording period appears.

If you want to display the members of another group for the same period, simply enter the group number in the *Group number* field and choose .

Copying Groups

Use

You can only create a group for a specific *recording period*. You copy the groups if you want the membership in groups to remain the same for the next *recording period*.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
2. Check the *Period* in the lower section of the screen. An incentive wage group is always created for one specific recording period.
3. Enter the *group number* of the group to be copied.
4. Choose  . The *Maintain Employees in Group* screen appears.
5. Choose  .
6. In the dialog box that appears, enter the new *group number* and new *recording period* for the group to be created. You can also maintain various default values in this dialog box. After you enter your data, choose  .
7. Choose  .

Result

The group created is valid for the duration of the new *recording period*. You can now record incentive wages data for this group.

Adding Employees to Existing Groups

Use

A group is always created for a specific *recording period* in incentive wages. You can only add an employee to an incentive wages group for a period during the *recording period*.

You can also add an employee to a group during the current *recording period*.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
2. Check the *Period* in the lower section of the screen. An incentive wage group is always created for one specific recording period.
3. If necessary, change the recording period and then choose  .
4. Enter the group number. Only numerical values are permitted for use as group numbers.
5. Choose  . The *Maintain Employees in Group* screen appears.
6. Enter the new group members in the *Pers (Personnel number)* field. Choose  .
7. Enter dates in the *Valid from* and *Valid to* fields to stipulate how long these employees are to belong to the group. The default value proposed is the total duration of the recording period.
8. In the *Percentage* field, enter a percentage to determine the degree to which the employee is to be included in the group result. This field is **not** evaluated in *SAP Payroll* in the standard SAP System.
9. If this employee is a relief worker, then activate the *Relief* checkbox. In this case, the employee only belongs to this group temporarily. Do not activate this checkbox for employees who are to always belong to this group.
10. Choose  .

Result

You have now added a new employee to the existing group.

Deleting Employees from Existing Groups

Prerequisites

You can only delete an employee from a group after you have deleted all time tickets for that employee containing the group number.

If an employee only **temporarily** does not work for the group, you do not have to delete him or her from the group. In this case, you can simply modify the period of group membership. This procedure ensures that no group-based time tickets are recorded for the employee during the time this employee is not working for the group.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
2. Check the *Period* in the lower section of the screen. An incentive wage group is always created for one specific recording period.
3. If necessary, change the recording period and then choose  .
4. Enter the group number. Only numerical values are permitted for use as group numbers.
5. Choose  . The *Maintain Employees in Group* list screen appears.
6. Select the employee to be deleted.
7. Choose  .
8. Choose  .

Result

The employees were deleted from the group for the selected *recording period*.

Processing Quantity Time Tickets

Use

This function is used to record and maintain employee data in *group incentive wages*. Both quantities completed as well as corresponding target times for groups are recorded using quantity time tickets.

Integration

The actual times of each group member are recorded in person time tickets [Page 650].

Features

A quantity time tickets is always recorded for a specific group. No individual result is determined for this time ticket type. The group result for the recording period is always displayed.

The result displayed is based on the existing premium formula of the period [Page 654]. In the standard SAP System, the result is determined by comparing the cumulated target times of the group with the cumulated actual times of the group during the recording period.

Read formatting incentive wages data [Page 652], if you want to know how incentive wages data is summarized for day and period results and the relationship between the individual time ticket types.

You can also enter the *target value* for the work performed. If you want to enter a yield as well as a *standard time*, the target value is calculated by the system and the target value entered is ignored.

The *target value* is calculated as follows:

$$\frac{(\text{Yield} + \text{Scrap}) \times \text{Standard Value}}{\text{Base Quantity}}$$

If no basic quantity is specified, then a quantity of 1 is calculated.

Quantity time tickets are not used in payroll.

Processing Person Time Tickets

Use

This function is used to record and maintain employee data in *group incentive wages*. Actual times worked by the individual group members are recorded using person time tickets.

Integration

Target times of the group are recorded using quantity time tickets [Page 649].

Features

Person time tickets are always recorded for one person and one group. No individual result is determined for this time ticket type. The group result for the recording period is always displayed.

The result displayed is based on the existing premium formula of the period [Page 654]. In the standard SAP System, the result is determined by comparing the cumulated target times of the group with the cumulated actual times of the group during the recording period.

The actual times of the group members are multiplied by the group result in payroll. Each group member is then remunerated with his or her own individual percentage of the group result.

For more information, see formatting incentive wages data [Page 652], if you want to know how incentive wages data is summarized for day and period results and the relationship between the individual time ticket types.

Processing Foremen Time Tickets

Use

This function is used to record and maintain employee data in *group incentive wages*. Foremen time tickets are used if the employee is to be remunerated based on the result of the time ticket, but the target and actual times of the time tickets are to be included in the group result.

Integration

The results displayed in the quantity and person time tickets affect the data on the foremen time tickets because they also influence the group result.

Features

Foremen time tickes are assigned to an employee and a group. This time ticket type has its own result. The group result is also displayed.

The group result displayed is based on the existing premium formula of the period [Page 654]. In the standard SAP System, the result is determined by comparing the cumulate target times of the group with the cumulated actual times of the group during the recording period.

You can enter the completed quantity on the foremen time tickets as well as the actual time required (*confirmation value*).

You can also enter the *target value* for the work performed. If you want to enter a yield as well as a *standard time*, the target value is calculated by the system and the target value entered is ignored.

The *target value* is calculated as follows:

$$\frac{(\text{Yield} + \text{Scrap}) \times \text{Standard Value}}{\text{Base Quantity}}$$

If no basic quantity is specified, then quantity 1 is calculated.

The recorded data influences the employee and group summarizations.

For more information, see formatting incentive wages data [Page 652], if you want to know how incentive wages data is summarized for day and period results and the relationship between the individual time ticket types.

Formatting Incentive Wages Data

Use

Incentive wages data is formatted when it is recorded. As a result, you can carry out evaluations and time leveling [Page 798] before payroll is run.

Integration

The formatted data can be read and processed in *SAP Payroll*.

Prerequisites

You must maintain the *Customizing* steps in the *Cumulations* and *Parameters* section of the Implementation Guide (IMG) for *SAP Incentive Wages*.

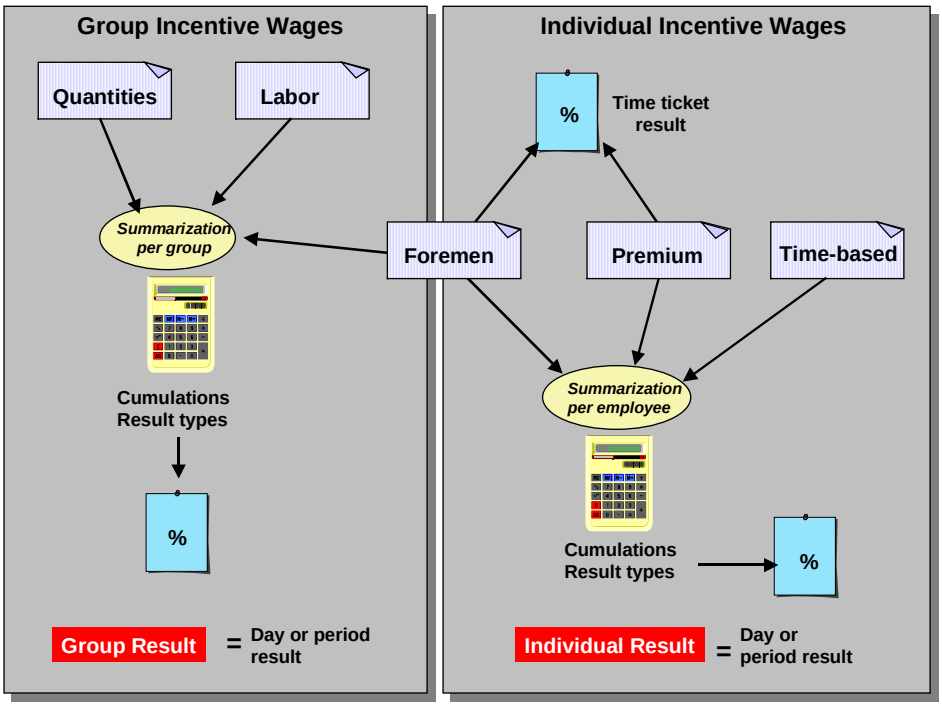
Features

The data for each time ticket can be summarized daily or periodically. Summarizations are performed separately for each employee and for each group.

You can change the day or period result by maintaining the parameters [Page 660].

Summarizations can be performed as cumulations [Page 655] or result types [Page 658]. Summarization rules depend upon time ticket type, recording wage type, and the premium formula for the period.

You can set whether the summarizations are to take place per period or per day only in *Customizing*.



- Summarization in group incentive wages
  - The target values of quantity time tickets [Page 649] and actual values of the labor time tickets [Page 650] are summarized for the group result. The group result is calculated from existing premium formula of the period [Page 654]. The performance of each member of the group is valuated in the group result. The group result for the period is displayed in the group time tickets.
  - The target and actual values of a foreman time ticket are also taken into account when group data is summarized. The time ticket data is also summarized for each employee.
- Summarization in individual incentive wages
  - Data from the premium time ticket and the time-based time tickets for each employee are summarized. The day and period results are also calculated from the existing premium formula of the period [Page 654]. Each time ticket result is displayed in the premium time ticket.

Specifying Premium Formulas for Periods

Use

The premium formula for the period is used to calculate the premium results for specific days and periods. As the basis for these calculations, cumulations [Page 655] are carried out and result types [Page 658] are determined.

Parameters can be defined as parameters [Page 660] in Customizing to be used as additional criteria in the premium formula.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* initial screen appears.
2. Check the period specified in the *Period* section of the screen.
3. Change the recording period, if necessary.
4. Choose .
5. Enter a personnel number or group number in the corresponding fields.
6. Choose .
7. Check the formula in the *Premium formula* field. The premium formula for the period is specified in this field.
8. Change the formula, if necessary.
10. Choose . The system recalculates the cumulations and result types.
11. Choose .

Result

You have specified the premium formula for one employee or group for the given period. Any cumulations, result types and parameters are stored in the employee or group data record.

Summarizations By Cumulations

Use

Cumulations are available for a limited amount of fields for each time ticket type. These standard cumulations are required to calculate the day and period results.

Integration

In addition to standard cumulations, result types [Page 658] and parameters [Page 660] influence day and period results.

Prerequisites

Settings for the standard cumulations in individual incentive wages are made in the *Set cumulation rules for employees* Customizing step.

Settings for the standard cumulations in group incentive wages are made in the *Set cumulation rules for groups* Customizing step.

Features

The following time ticket fields are available for standard cumulations:

- Employee actual time
- Setup actual time
- Teardown actual time
- Employee target time
- Setup target time
- Teardown target time

Individual incentive wages

Standard cumulations are used in individual incentive wages for premium time tickets, if they are provided by the recording wage type ML01 (piecework time).

The following time tickets are recorded for an employee:

Date	Employee Actual Time	Employee Target Time	Wage Type	Result
1. First day of month	3 hrs	3.5 hrs	ML01	116.667%
1. First day of month	5 hrs	6 hrs	ML01	120.000%
2. Second day of onth	8 hrs	10 hrs	ML01	125.000%

Standard cumulations are calculated as follows:

Date	Result	Employee Actual Time	Employee Target Time

Entire period	121.875%	16 hrs	19.5 hrs
1. First day of month	118.750%	8 hrs	9.5 hrs
2. Second day of month	125.000%	8 hrs	10 hrs

Each day is cumulated first (first day of month), and then the entire period.

If you key a premium time ticket with the wage type ML02 (average paid), then the times are not included in the standard cumulations. These times are cumulated in the *Average* result type [Page 658].

Group incentive wages

Standard cumulations are carried out in group incentive wages for all time ticket types. Target times from the quantity time tickets and actual times from the person time tickets are cumulated.

If foremen time tickets are used, both values are included in the cumulation.

The day and period cumulations are carried out in the same way as for individual incentive wages.

Displaying Cumulations

Prerequisites

Time tickets for the recording period must exist.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
2. Enter the personnel number of the employee or a group number.
3. Check and change the period, if necessary.
4. Choose  .

Result

The cumulations for the selected employees or group are displayed on the first tab page.

Summarizations By Result Types

Use

If the standard cumulations [Page 655] are not sufficient to calculate summarized results, you can perform additional summarizations using result types.

Prerequisites

Result types are specified in the Customizing step *Create result types*.

Settings for the standard cumulations in individual incentive wages are made in the *Set cumulation rules for employees* Customizing step.

Settings for the standard cumulations in individual incentive wages are made in the *Set cumulation rules for groups* Customizing step.

Features

All target and actual times from the time tickets can be summarized in result types.

This is the only method in which data from time ticket fields not used in standard cumulations can be included in the summarizations.

However, it can still be necessary to perform a summarization using result types on data in time ticket fields already included in standard cumulations. There are a number of business reasons to use result types for summarizations:

- If time ticket was keyed with the time-based wage type
- Result types permit evaluations to be made according to the following split indicators
  - Order number
  - Company code and cost center
  - Time ticket number

Displaying Result Types

Prerequisites

Time tickets for the recording period must exist.

Procedure

5. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain.* The *Maintain Incentive Wages* initial screen appears.
6. Enter the personnel number of the employee or a group number.
7. Check and change the period, if necessary.
8. Choose  .

Result

The result types for the selected employees or group are displayed on the first tab page.

Formatting Results Using Parameters

Use

Parameters can be included in the premium formula to affect the incentive wages results. Parameters are frequently used to affect certain values on the time tickets. For example, you can record additional target or actual times using parameters that are only used to affect incentive wages results.

Prerequisites

Parameters are defined in the Customizing section *Parameters*, and assigned to premium formulas.

Features

You can overwrite parameters in time ticket maintainenance if the appropriate settings are made in Customizing. These settings are made in the constants table T511K.

Parameters can only be included in premium formulas for the period.

Maintaining Parameters

Use

You can define parameters in the premium formula [Page 654] of the period in Customizing for use in calculating results. Fixed values can be set for the separate parameters, however, you can also assign default values that the user can overwrite.

Procedure

1. Choose *Human Resources* → *Time Management* → *Incentive Wages* → *Time Tickets* → *Maintain*. The *Maintain Incentive Wages* initial screen appears.
2. Check the period specified in the *Period* section of the screen.
3. If necessary, change the recording period and then choose .
4. Choose .
5. Choose *Parameter*.
6. Enter a personnel number or a group number.
7. Choose .
8. Check the formula in the *Premium formula* field. This field contains the premium formula for the period.

   The premium formula for the period determines how cumulations and result types are calculated.
9. Change the formula, if necessary.
10. Choose .

    The system displays any parameters already defined for the specified premium formula. You can overwrite data in the parameter fields ready for input.

8. Maintain the data in the fields ready for input, if necessary.
9. Choose .

Result

The parameters are stored in the employee or group data record.

Defining Step Functions

Use

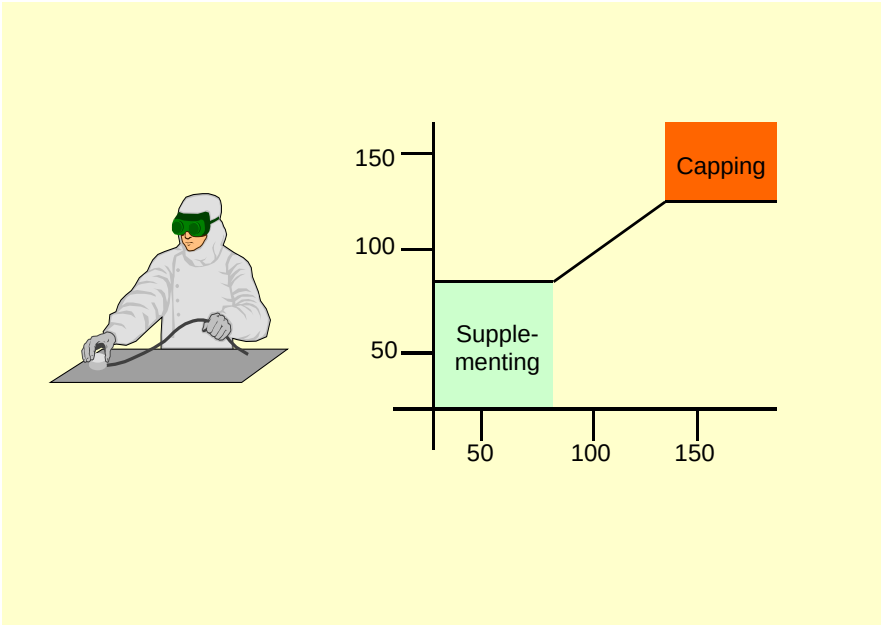
Fixed values can be assigned to the period result for certain areas using step functions.

Prerequisites

The step functions are specified in the Customizing step *Define step functions*.

Features

You can use the step functions to perform supplementing and capping.



In the above diagram, a result up to 80 has a fixed value of 80. A result over 130 has a fixed value of 130. Any individual result between 80 and 130 remains as is.

An employee receiving incentive wages reached a labor utilization rate of 70% in August. This labor utilization rate is supplemented by a step function to 80%.

The rate was 140% in September. And was capped to 130%.

The labor utilzation rate was 120% in October. This labor utilization rate is not changed.

Incentive Wages: Overview

Familiarity with the technical aspects of *SAP Payroll* is a prerequisite for understanding incentive wages accounting. In particular, you must understand the following terms: personnel calculation scheme, personnel calculation rule, function, and operation.

The extensive options for implementing *SAP Incentive Wages* make system standardization difficult. If the time ticket types and the manner in which time tickets are recorded differs greatly from one enterprise to the next, then valuation of time tickets can often be completely different. Therefore, it does not make sense to elaborate incentive wages accounting processes in detail to cover all possible accounting scenarios.

Following, you will find a number of versions as examples to use when setting up your own incentive wages accounting process. The international version contains an accounting process for hourly-wage earners, while the German version features two additional processes for monthly wage earners based on the collective agreement provisions existing in the Federal German states of Baden Wuerttemberg and North Rhein-Wesfalia. Please refer to the Implementation Guide (IMG) for further information.

Incentive Wages Accounting: Processes

Three accounting processes for incentive wages are contained in the standard SAP System. The concepts behind these processes are explained further.

Monthly Wage Calculation for Incentive Wages

In monthly wage calculation, the target time is valuated for each time ticket using the piecework rate. The piecework rate for the wage group [Ext.] entered on the time ticket is used for this case. The result is the amount that the piecework employee is due for the respective time ticket. The calculated amount is made up of the following:

- Basic Monthly Wage
- Time-dependent variable element
- Performance-dependent variable element

Basic Monthly Wage

The basic monthly wage is the part of the gross wage paid to employees regardless of their performance. It can be paid in a monthly lump sum, or defined as an hourly wage dependent on the working time.

The basic monthly wage is determined in the gross part of payroll. This amount is used in incentive wages as the basis for calculating variable elements.

Monthly wages are converted to hourly rates for incentive wage accounting.

Various bonuses can be paid out in addition to the basic wage. Examples include bonuses for working nights or on Sundays. However, these bonuses are **not** taken into account in the standard SAP System for incentive wages accounting.

Time-Dependent Variable Element

Employees can be assigned to a pay scale group different from their master pay scale group, and remunerated at a higher rate for certain activities in incentive wages accounting. The higher pay scale group must be entered on the time ticket. The difference amount is determined in incentive wage accounting, and valuated using the actual time as specified on the time ticket. The resulting amount is referred to as a **time-dependent variable element**.

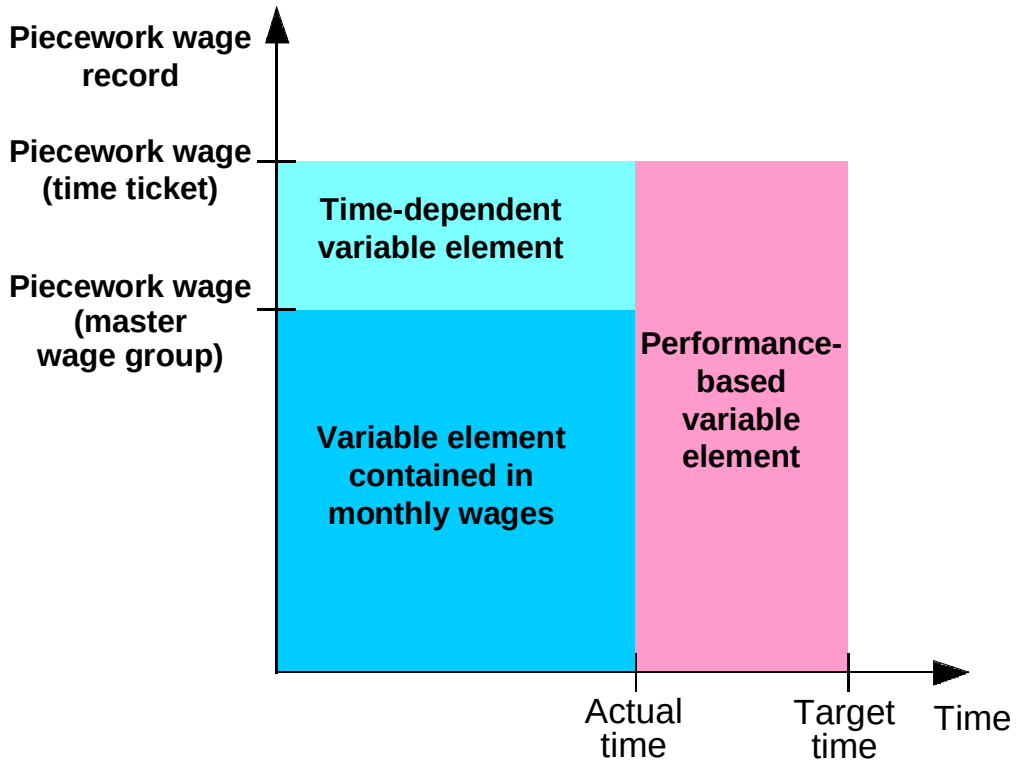
Performance-Dependent Variable Element

The performance-dependent variable element credits the employee with completing work in less than the target time. The difference between target and actual time is valuated according to the pay scale group specified on the time ticket.

Theoretically, both the time-dependent and the performance-dependent variable elements can be negative and result in a wage deduction. This can be the case for the time-dependent variable element if the pay scale group specified on a time ticket is lower (that is, valuated at a lower rate) than the employee's master wage group. Downgrading is limited to a maximum of one pay scale group in the standard SAP System. If the actual time is greater than the target time, the performance-dependent variable element assumes a negative value. In this case, the time ticket is usually paid at the average rate, that is, the performance-dependent variable element has a value of zero.

The following diagram shows the relationship between the various gross wage elements:

Monthly Wage Calculation for Incentive Wages



The individual areas are represented in proportion to the gross wage elements.

The piecework rate in an employee's master wage group is 22 euros/hour.

The employee completes an order in four hours, instead of the target time of five hours. The employee is also assigned to a higher wage group with a piecework rate of 24 euros/hour. The higher wage group is entered on the time ticket.

The standard calculation performed in incentive wages accounting for this time ticket is as follows:

The total amount due to the employee for this time ticket is calculated by multiplying the target time by the piecework rate on the time ticket:

5 hours x 24 euros/hour = 120 euros

The *basic monthly wage element* is determined by multiplying the actual time by the piecework rate of the master wage group:

4 hours x 22 euros/hour = 88 euros

You get the *time-dependent variable element* by multiplying the 2 euros extra in the higher wage group by the actual time:

4 hours x 2 euros/hour = 8 euros

The *performance-dependent variable element* is determined by multiplying the difference between target and actual time by the piecework rate of the time ticket:

(5 hours – 4 hours) x 24 euros/hour = 24 euros

The result is then:

88 euros + 24 euros + 8 euros = 120 euros

The *time-dependent variable element* of 8 euros and the *performance-dependent variable element* of 24 euros are explicitly indicated as elements of the gross wage.

Calculating the Earnings Factor for Incentive Wages

The following describes the procedure for calculating the earnings factor in incentive wages accounting, based on the one stipulated in Baden Wuerttemberg. The basic monthly wage of the current month is multiplied by the earnings factor of the last two months.

The earnings factor is calculated as follows:

$$DRS\_A = \frac{\text{Total (SZ(LS) x ARS(LS)) + DZ(LS) x DRS\_V}}{\text{ANWZ}}$$

$$\textbf{Earnings Factor} = \frac{\textbf{DRS\_V}}{\textbf{ARS}}$$

Whereby:

Table Caption

●	SZ(LS):	The target time of the individual time ticket
●	ARS(LS):	The piecework rate of the wage group on the time ticket
●	DZ(LS):	The actual time of the time tickets paid at the average rate
●	DRS_A:	The average basic rate of the current month
●	DRS_V:	The average basic rate of the last two months
●	ARS:	The piecework rate of the master wage group
●	ANWZ:	The total of all actual times (piecework and average)

The total is for all time tickets in the reference period, that is, two months in the standard SAP System.

Earnings Factor: Example

An employee receives a basic monthly wage of 3,200 euros. This is an hourly wage (= piecework rate) of 20 euros/hour for a monthly working time of 160 hours.

Of the 160 working hours, he works 100 hours on a piecework basis (= actual time), and the remaining 60 hours are paid at the average rate.

The employee's performance corresponds to a **target time** of 120 hours. From this target time, 20 hours are paid at a rate of 20 euros/hours and 100 hours are paid at a rate of 25 euros/hour. A higher is entered as the master wage group on the time ticket.for the 100 hours. The employee is entitled to a total of 2,900 euros for the work. The piecework hourly wage (actual time = 100 hours) is thus calculated as 29 euros/hour. This value is the average rate for the current month.

To calculate the earnings factor for the current month, the average rate of the current month is divided by the piecework rate of the master wage group:

$$\text{Earnings Factor} = \frac{29 \text{ euros/hour}}{20 \text{ euros/hour}} = 145\%$$

In order to calculate the employee's gross monthly wage, the basic monthly wage is multiplied by the earnings factor:

Gross Monthly Wages = 3,200 euros x 145% = 4,640 euros

The employee's gross monthly wage is 4,640 euros.

In the above example, the gross monthly wage was calculated according to the earnings factor of the current month. The average earnings factor of the previous two months is also used in the standard procedure, however. This allows a monthly wage with deferred payment.

Incentive Wages Accounting: Hourly Wage Earners

The process for hourly wages accounting is basically the same as the process for monthly wages accounting [Page 665]. However, There is one major difference:

The monthly wage is specified as an hourly wage from the start of the process. As a result, the monthly basic wage does not need to be converted into an hourly wage.

Incentive Wage Accounting: Tools

The following sections contain additional information regarding personnel calculation schemas, functions, and personnel calculation rules to be used in incentive wages accounting.

Incentive Wages Accounting: Personnel Calculation Schemas

The recorded time tickets are valuated in the gross part of payroll; incentive wages accounting is an integral part of payroll.

There are two reference schemas for incentive wages accounting:

- **German Version: DIW0**

  Schema DIW0 is used in the German version of *SAP Payroll*, and contains special features that are specific to Germany only.

  In the German version, subschema DT00 is called from schema D000. From there, schema DT00 (which processes the time data) is called to valuate the time tickets.

  The feature of schema DIW0 specific to Germany is the final monthly calculation.

  For more information, see the Implementation Guide (IMG) for *SAP Incentive Wages* under *Set controls for accounting*.

- **International Version: XIW00**

  Since the procedure for valuating time tickets varies so greatly from one country and organization to the next, there are no country-specific accounting schemas for Incentive Wages. Instead, you can use schema XIW0 as a reference for setting up your own incentive wage accounting system.

  Schema X000 serves as a reference for the entire international *Payroll* component (gross and net part). Subschema XT00 is provided for the gross part. Schema XIW0 is then called from schema XT00, and is used to valuate the time tickets.

  For more information, see the IMG for *SAP Incentive Wages* under *Set controls for accounting*.

  The personnel calculation schemas XIW0 and DIW0 are activated in the standard SAP System. If they are not required, they can simply be deactivated to improve system performance.

Personnel Calculation Rules DIW0 and XIW0

The structures of personnel calculation rules DIW0 and XIW0 are identical. They consist of the following steps:

- Testing the employee's employee subgroup
- Reading special valuation bases for incentive wages
- Processing time tickets for individual incentive wages
- Processing time tickets for group incentive wages

Schema DIW0 includes the following additional feature for Germany:Final monthly calculation

The above steps are carried out in separate functions.

Before the time tickets are valuated, average values from the previous month are read by calling the ACTIO function with the XW0 personnel calculation rule as a parameter. These are used as valuation bases for working times that are valuated with an average rate (for example, working times that have been recorded on time-based time tickets).

Two special functions are provided to actually process the individual time tickets: Individual time tickets are valuated with function PW1, and group time tickets are valuated with function PW2.

After the time tickets have been valuated in the German DIW0 schema, the ACTIO function is called with the DWM personnel calculation rule as a parameter to perform a final monthly calculation.

Functions PW1 and PW2

Functions **PW1** and **PW2** are used to process time tickets in *SAP Payroll*.

Function PW1 performs the following steps:

- Reads the time ticket data for individual incentive wages, importing only those time tickets:
  - Having payroll indicators with a value of 1
  - Which are not locked
  - Whose posting date is within the recording period.
- Reads the account assignment splits for work center, cost center, and employee subgroup grouping for personnel calculation rules for each time ticket.
- Valuates the time tickets according to the personnel calculation rule that is entered as the parameter.

Function PW2 performs the following steps:

- Reads the time ticket data for individual incentive wages, importing only those time tickets:
  - Having payroll indicators with a value of 2
  - Which are not locked
  - Whose posting date is within the accounting period.
- Reads the group results.
- Enters the group result in the *labor utilization rate* field of the time ticket (this takes place temporarily so that calculations can be performed and is *not* written to the database).
- Calculates the target time from the actual time on the respective time ticket and the group result, and enters it in the appropriate time ticket field.
- Reads the account assignment splits for work center, cost center and employee subgroup grouping for personnel calculation rules for each time ticket.
- Valuates the time tickets according to the personnel calculation rule that is entered as the parameter.

Incentive Wages Accounting: Personnel Calculation Rules

The following personnel calculation rules are used in the international and in the German payroll schema to perform various individual steps:

	International	German
Test Employee Subgroup	XW3	XW3
Test Employee	XW4	XW4
Special Valuation Bases	XW0	XW0
Process Individual Time Tickets	XW1	DW1
Process Group Time Tickets	XW2	DW2
Final Monthly Calculation	—	DWM

XW3:

The employee subgroup is read in the XW3 personnel calculation rule. Employees who work on an incentive wage basis have to be assigned to employee DJ, DK, DO, or DP subgroups in the standard SAP System. If this is the case, the variable INCW is set to a value of 1. If the employee belongs to a different subgroup, then the variable retains its intial value of 0.

XW4:

The XW4 personnel calculation rule is used as a parameter by the IF function. The INCW variable is evaluated in this particular rule. If INCW has the value of 1, the subsequent processing steps are carried out; they are not if the value is other than 1.

XW0:

Average values from the previous month are made accessible in the XW0 personnel calculation rule, according to the employee subgroup. These are used as valuation bases for working times that are valuated with an average rate (for example, working times that have been recorded on time-based time tickets).

XW1, XW2, DW1, DW2:

The time tickets are valuated according to XW1, XW2, DW1 and DW2.

DWM

A final monthly calculation is performed in the DWM personnel calculation rule, according to the employee's pay scale area. This only makes sense if the earnings factor [Page 668] was calculated in the previous accounting steps.

All of the procedures described here depending on wage group, that is, the amounts calculated are differentiated by wage group for the hourly wage.

Special Operations

The following operations are required to set up incentive wages accounting to suit individual customer requirements:

- MEANV: Average calculation
- VWTCL: Value of processing class

  (Processing class 46 is used here)
- RE510: Reads pay scale table
- GETAL: Sets labor utilization rate
- TABLE: Prepares access to table fields
  - You can activate the *LE* parameter to access all fields in the time ticket being processed.
  - You can activate the *GT* parameter to read data on an employee's membership in the group when processing group time tickets.
- VARGB: Sets field from table in variable argument
- FILLW: Writes to the subsequent time ticket [Ext.]
- ADDWT: Totals in subsequent time ticket (specification M)

  For more information, see the RPDSYS00 documentation.

Wage Types

Wage types for basic pay, wage types on time tickets, and wage types as payroll results are relevant in *SAP Incentive Wages*.

Wage Types from Basic Pay

Different wage types are taken as the basis for calculating piecework bonuses, depending on whether the employee is an hourly or monthly wage earner.

Hourly Wage Earners:

The standard hourly wage **ME10** is referenced to valuate time tickets for hourly wage earners.

Monthly Wage Earners:

Wage type **MC10** is used in the standard system for monthly wage earners.

The basic monthly wage is included in the gross amount for the monthly wage calculation in the standard system, and is supplemented by the variable elements for incentive wages accounting.

For earnings factor calculation, which is also set up in the standard system, the basic monthly wage is multiplied by the earnings factor. The difference between this amount and the basic monthly wage is included in the gross amount as a piecework bonus.

The monthly wage or the standard hourly wage must be specified in the *Basic Pay* infotype (0008).

Wage Types on Time Tickets

There are two methods of valuating a time ticket in payroll.

The target time on the time ticket can be valuated with the piecework rate for the wage group specified on the time ticket. The time tickets are paid at a *piecework rate*.

The actual time on a time ticket can be paid at an average rate (for example average value from previous month). These are time tickets paid at an *average rate*.

The wage type entered on the time ticket specifies whether the time ticket is paid at a piecework rate, or at an average rate.

Wage type **ML01** is used for piecework payment in the standard system, while payment at an average rate is indicated by wage type **ML02**.

A wage type is only entered on time tickets that specify a personnel number.

You can specify which wage types can be entered on which types of time ticket when you customize the system. See *Define permitted wage types* in the *SAP Incentive Wages* section of the IMG.

Processing class 46 is used in the wage type settings to identify the payment type (piecework or average). The processing class has two standard specifications:

- 1: Piecework paid time tickets
- 2: Average paid time tickets

This is difference between the ML01 and ML02 wage types in the standard SAP System.

Wage Types as Accounting Results

Different wage types are entered in the result table by the personnel calculation rules in *SAP Incentive Wages*, depending on the accounting procedure used.

The following wage types are used for the standard accounting procedures:

- **Hourly and Monthly Wage:**
  - Time-dependent variable elements per wage group:

    ML09, ML10, ML11, **...**, ML19
  - Performance-dependent variable elements per wage group:

    ML29, ML30, ML31, **...**, ML39
  - Earnings for times paid at an average rate:

    MLDU
  - Performance-dependent variable element:

    MLVL
  - Time-dependent variable element:

    MLVZ
- **Earnings Factor:**
  - Piecework earnings per wage group:

    ML59, ML60, ML61,**...**, ML69
  - Earnings for times paid at an average rate:

    MLDU
  - Earnings factor:

    MLSU
  - Incentive wages bonus:

    MLAZ

Transferring Data to *Financial Accounting* and *Controlling*

Use

You can use this function to post additional earnings resulting from *Incentive Wages* to *Financial Accounting* or make an appropriate cost assignment in *Controlling*.

Integration

Transferring incentive wages data occurs after payroll is run. The transfer is triggered by the **Posting to Accounting: Generate Posting Run** (RPCIPE00) report. The report transfers data to *Financial Accounting* and *Controlling*.

For more information, see Posting to Accounting [Ext.].

Prerequisites

The wage type MLCO must be keyed accordingly.

There are a number of different examples explaining how the wage type MLCO is taken into account in the sample personnel calculation rules for incentive wages included in the standard SAP System.

Features

The applicable expense accounts are posted during the transfer to *Financial Accounting*.

A cost assignment is made by the transfer to *Controlling*. If the time ticket contains a cost center that differs from the employee's master cost center, then the time cost center is debited and the master cost center is credited during payroll. The wage types are generated with an account assignment split for this purpose.

No activity allocation takes place in *Incentive Wages*. If the time tickets were retrieved from *Logistics*, activity allocation already occurred there. If no integration with *Logistics* exists, this function must be carried out using the *Attendances* or *Absences*, or *Employee Remuneration Info* infotypes.

Integrating Time Management with Other Components (PT-IN)

Purpose

You can use the *Integrating Time Management with Other R/3 Components* to record time data that can also be used and processed by other R/3 components.

You can also transfer time data from other systems. This is especially the case for the time data from the *Time Sheet* (CATS). You can also transfer time data from front-end time recording systems or external time management systems.

Implementation Considerations

You can use *Integrating Time Management with Other R/3 Applications* to carry out the following:

- Assigning personnel costs to Controlling objects (such as cost centers, orders, and so on.
- Allocating activities in *Controlling* (CO)
- Calculating working hours for external services
- Transferring time data from *Time Sheet* (CATS)
- Transferring time data from a time recording system
- Transferring time data from an external time management system

Integration

Integration with Other Components

Function	Required Components
Time Sheet	*Time Management* (PT) *Time Sheet* (CA-TS)
Internal activity allocation	*Time Data Recording* (PT-RC) *Controlling* (CO)
Cost Assignment	*Time Data Recording* (PT-RC) *Payroll* (PY) *Controlling* (CO)
External services	*Time Data Recording* (PT-RC) *External Services* (MM-SRV)
Connecting with external time recording systems	*Time Data Recording* (PT-RC) *Time Events* (PT-RC-TE)
Connecting with external time management systems	*Time Data Recording* (PT-RC)

Features

Integration with the Time Sheet (CATS) [Ext.]

Time data recorded in the *Time Sheet* can be transferred to *Time Management*. In this way, quotas can be accrued and deducted from this data in *Time Management*. The time data can also be prepared for *Payroll* (PY).

Recording Cost Assignments in HR Time Management [Page 691]

Cost assignments recorded in *Time Management* are further processed and valuated in *Payroll* (PY). The personnel costs determined can also be transferred to *Controlling* (CO). There, the Controlling objects recorded are debited accordingly.

Recording Specifications for Activity Allocation in HR Time Management [Page 684]

Activity allocation specifications recorded in *R/3 Time Management* are transferred to *R/3 Controlling*. Internal activity allocation is carried out based on the pay scales located there.

Integration with External Services Management (MM/SRV) [Page 702]

You can manage time data concerning any employees from external companies who perform work for your enterprise using the *Time Management* component. Costs for work performed by external employees depends upon the following:

- Working time (evening hours, public holidays, and so on)
- Qualifications of the person doing the work
- Type of work performed
- Any agreed upon contractual conditions

Connecting Front-End Time Recording Systems [Page 711]

Personnel time events (such as clock-in/clock-out entries) or employee expenditures (such as cafeteria or service station data) are recorded on front-end time recording systems. This data can then be transferred to *R/3 Time Management* and further processed there.

Connecting External Time Management Systems [Page 742]

Time data recorded in external time management systems can also be transferred to *Time Management* and further processed there.

Activity Allocation

Purpose

Information regarding internal activity allocation [Ext.] in *R/3 Time Management* (PT) can be entered when recording time infotype records. The data is transferred to *R/3 Controlling* (CO) and processed further there.

As of Release 4.6C, a new user interface for processing time data, the Time Manager's Workplace [Page 820], is available. You can also use the Time Manager's Workplace to enter information for activity allocation.

Implementation Considerations

This component should be implemented if any scheduled costs resulting from an employee's working time are to be debited from the Controlling object (such as cost center, order, and so on) and credit the employee's cost center.

If activity allocation is already carried out in another component, then activity allocation does not occur in *R/3 Time Management*.

Integration

Integration with Other Components

Function	Required Components
Activity allocation	*Time Data Recording* (PT-RC) *Controlling* (CO)
Cost assignment to sender cost centers	*Time Data Recording* (PT-RC) *Payroll* (PY) *Controlling* (CO)

Features

Only specifications for *R/3 Controlling* are entered in *R/3 Time Management*. Activity allocation occurs only after data is transferred to *R/3 Controlling*.

The two Controlling objects involved in internal activity allocation are called the **Sender** (of the service) and **Receiver** (of the service). Scheduled costs are calculated in *Controlling* on the basis of activity types [Ext.]. The receiver *Controlling* object is debited with the calculated costs, while the sender cost center is credited with the same amount.

Usually, the master cost center is credited with the amount of costs determined. However, another cost center can be credited.

Information relating to the sender cost center (master cost center of alternative cost center is transferred to *Payroll* (PY). In this way, the sender cost center is debited with actual costs in *Controlling*.

You can use the following infotypes in activity allocation:

- *Absences* (2001)
- *Attendances* (2002)
- *Employee Remuneration Info* (2010)

If your *R/3 Time Management* (PT) and *R/3 Controlling* (CO) components are located in separate systems, see the documentation on Setting Up Activity Allocation in R/3 Time Management [Ext.].

Recording Activity Assignments and Transferring Data to *R/3 Controlling* (CO)

Purpose

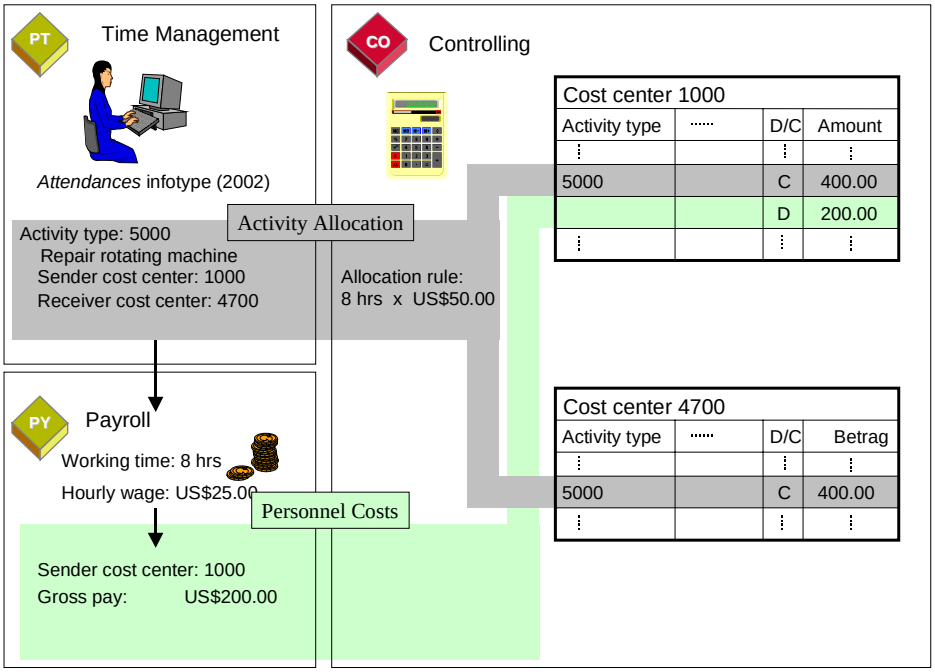
When recording specifications for activity allocation in *R/3 Time Management*, activities that produce cost centers for Controlling objects in *R/3 Controlling* (CO) can be taken into account.

For the sender (of service) cost center, costs in the amount of the scheduled costs are posted as the billable activity, while the receiver Controlling objects are debited with these costs.

Process Flow

1. You recorded attendance hours with specifications for activity allocation.
2. The data is transferred to *R/3 Controlling*.
3. Activity allocation is carried out in *R/3 Controlling*. This takes place either in direct or indirect activity allocation.
4. The information recorded on the sender cost center is transferred to *R/3 Payroll*.
5. The time data is valuated in monetary terms in *Payroll* and stored as time wage types. These time wage types inherit account assignment information from the time data with cost assignment. Symbolic accounts are then assigned to the time wage types with account assignment.
6. Account assignment information for time wage types is transferred to *R/3 Controlling*. There, the sender cost center is debited with the actual costs determined.

Example



1. You have entered a specification for activity allocation in the *Attendances* (2002) in *R/3 Time Management*. An employee from production repairs) a rotating machine belonging to the cost center 4700 (Lathe Operation) for the cost center 1000 (Plant Maintenance). The applicable cost centers and the corresponding activity type are recorded.
2. The specifications for activity allocations are transferred to *R/3 Controlling*.
3. Activity allocation is carried out in *R/3 Controlling*. The sender cost center 1000 is credited with US$400.00. The receiver cost center 1000 is debited by US$400.00.
4. The absence hours are transferred with the information on the sender cost center to *Payroll*.
5. Absence hours are monetarily valuated. The employee receives an hourly wage in the amount of US$25.00. Therefore, the gross pay is US$200.00. The time wage types inherit the cost assignment information created and a symbolic account assignment is carried out.
6. The account assignment information is transferred to *Controlling*. Cost center 1000 is debited with the actual costs totaling US$200.00 from *Payroll*.

Recording Activity Allocations

Use

If you want to define activity allocation specifications in one dialog box, activity allocation is carried out in *R/3 Controlling*. In addition, the personnel costs resulting are assigned to the sender cost center.

Specifications for activity allocation can also be maintained using the weekly recording screen for the *Attendances* (2002) and *Absences* (2001) infotypes.

Prerequisites

Check the entries made in Customizing in the *Entry Specifications for Activity Allocation* step in the Implementation Guide (IMG) for **Personnel Time Management**.

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain*.
2. Enter the personnel number of the employee.
3. Select a time infotype to be maintained.
4. Enter a *time event type* and *validity period* as required and choose *Create*.

   The time infotype maintenance screen appears. Maintain the employee's time data here.
5. Choose *Activity Allocation*.

   The *Activity Allocation Specifications* dialog box appears.

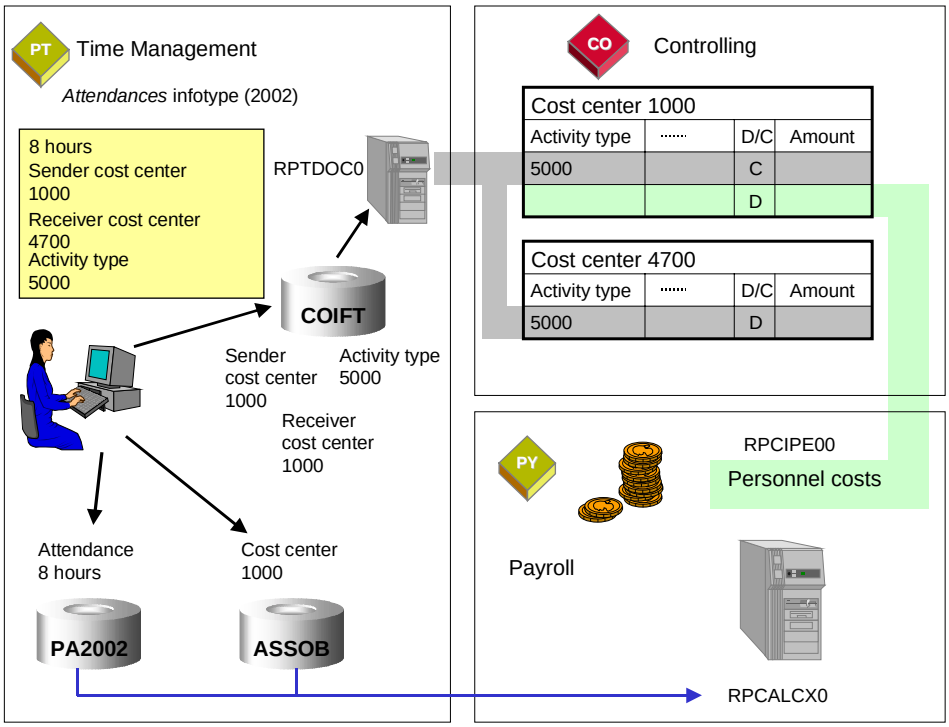
   This dialog box can be modified to suit the specific requirements of your enterprise. Contact your system administrator for more information.
6. Enter the required *R/3 Controlling* information and choose *Transfer*. The entry screen appears.

   Receiver data is recorded in the *Account Assignment* section of the screen.

   The sender (sender cost center) is usually the employee's master cost center.
7. Save your entries.

Data Flow for Activity Allocation

The following describes the data flow for recording specifications for activity allocation in *Time Management* as well as when transferring data to *Controlling* (CO).



1. The time data for the infotype record is stored in the transparent table *Personnel Time Record* infotype *XXXX* (PAXXXX).

   Data for activity allocation is checked by *R/3 Controlling* when recording.

   When saved, the data is stored in two tables:

   – Transparent table *Assignment Records* (ASSOB)

   – Table *Interface for Activity Assignment* (COIFT)

   All activity assignment data is represented in hours and assigned an activity type.

2. Data from table COIFT is transferred with report *Transfer Additional Activity Allocation to Accounting* (RPTDOC0) to *Controlling* (CO).

   This data is processed further in *R/3 Controlling*. The activity type transferred with the data determines the costs to be allocated between the sender object and the receiver object.

3. Data from PAXXXX and ASSOB is evaluated and processed by the RPCALCX0 payroll driver in *Payroll*.

Time data with account assignment can also be processed using the *Time Evaluation* report (RPTIME00). Time wage types determined in report RPTIME00 inherit the account assignment of the time data.

Symbolic accounts are assigned to the time wage types with account assignment by report RPCALCX0. In this way, additional special processing of the posting data resulting from the time wage types can be carried out.

4. Report RPCIPE00 (*Posting to Accounting: Generate Posting Run)* transfers the data to *Accounting*, that is it supplies account assignment data to the *Financial Accounting* (FI) and *Controlling* (CO) components.

   The personnel costs are posted as primary costs to the sender cost center in *R/3 Controlling*.

For more information, see Posting to Accounting [Ext.].

Cost Assignment

Purpose

Personnel costs are determined in *Payroll* (PY) and transferred to *R/3 Controlling* (CO). Controlling objects (such as cost centers) are debited with these primary costs in *R/3 Controlling*.

Costs can be assigned to various Controlling objects in *R/3 Time Management*.

As of Release 4.6C, a new user interface for processing time data, the Time Manager's Workplace [Page 820], is available. You can also use the Time Manager's Workplace to enter information for cost assignment.

Implementation Considerations

If you want to simply assign employee costs to various Controlling objects, carry out Cost Assignment without Activity Type [Page 693].

However, if you have already carried out Activity Allocation [Ext.] in another component (such as *R/3 Logistics*), then carry out Cost Assignment to the Credited Cost Center/Activity Type [Page 696].

Integration

Integration with Other Components

Function	Required Components
Cost Assignment	*Time Data Recording* (PT-RC) *Payroll* (PY) *Controlling* (CO)
Cost assignment using time recording systems	*Time Data Recording* (PT-RC) *Time Events* (PT-RC-TE) *Controlling* (CO)

When employees enter their time data at external time recording systems, they can also record information regarding cost assignment there at the same time. This data can be uploaded to the SAP System and stored in the *Time Events* infotype (2011). Similarly, you can also process cost assignments in the *Attendances* (2002) and *Absences* (2001) infotypes.

For more information, see Personnel Time Events [Page 351].

Features

Personnel costs are debited from Controlling objects in one of the following ways:

1. Debiting master cost center

   The employee's master cost center is debited with all accrued costs for this employee. These costs include not only the employee's gross pay, but all additional payroll-related costs to the employer, including:

Cost Assignment

- Employer's contribution to social insurance
- Employee benefits for capital formation

  Employees are assigned to a master cost center in *Personnel Administration* in the Organizational Assignment [Ext.] infotype (0001).

2. Cost distribution between cost centers

   The total employee costs determined in *Payroll* are distributed as a certain percentage (%) to several cost centers. This process allows employees to perform various tasks for different cost centers. Cost distribution is also set up in *Personnel Administration*. Cost distribution is maintained in the Cost Distribution [Ext.] infotype (0027).

3. Individual cost assignment

   Costs pertaining to employee working hours can be individually assigned to separate Controlling objects. Assignment takes place when time infotype records are recorded.

   In the posting process, the alternative Controlling object is only debited with the gross pay for the working hours entered.

Cost Assignment without Activity Types

Use

You want to enter an individual cost assignment when recording time infotype records in *R/3 Time Management*. A number of Controlling objects are available.

Integration

Time data entered is transferred to *Payroll* (PY) and processed further there. Personnel costs are determined in *Payroll* (PY) and transferred to *R/3 Controlling* (CO).

Prerequisites

In the Customizing *Permit assignment of personnel costs* step in the Implementation Guide (IMG) for **Personnel Time Management**, you must define the following:

- Which infotypes can be used for recording cost assignments
- What Controlling objects are taken into account in cost assignment

Features

In the standard R/3 System, you can enter cost assignments for the following infotypes:

- *Absences* (2001)
- *Attendances* (2002)
- *Substitutions* (2003)
- *Availability* (2004)
- *Overtime* (2005)
- *Employee Remuneration Info* (2010)
- *Time Events* (2011)

You can use weekly and fast entry screens to record cost assignments in *R/3 Time Management*.

- Use the weekly recording screen to record several time data records for one employee at one time For more information, see Weekly Entry Screen [Page 271].
- Use the Fast Entry [Page 290] screen to record infotype records for several employees at the same time This function can be used for the *Employee Remuneration Info* infotype (2010)

Recording Cost Assignments without Activity Types

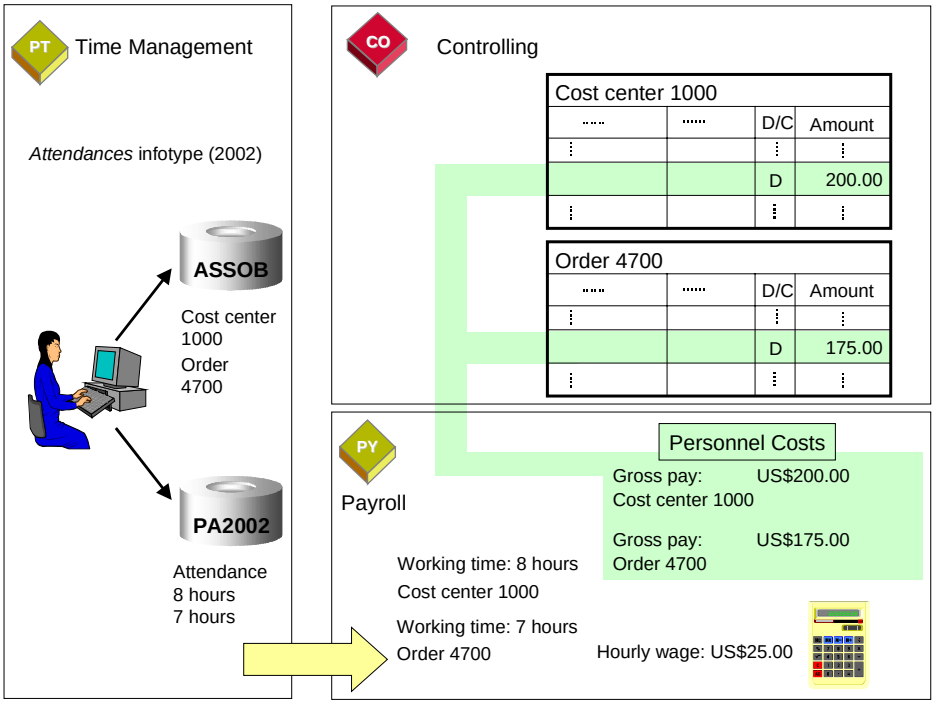
Purpose

When recording an individual cost assignment with time data, you enable other Controlling objects to be debited than the master cost center of the that employee.

Process Flow

1. You recorded attendance hours with cost assignments.
2. Data is transferred to *R/3 Payroll*.
3. Time data is monetarily valuated in *R/3 Payroll* and stored as time wage types. These time wage types inherit account assignment information from the time data with cost assignment. Symbolic accounts are then assigned to the time wage types with account assignment.
4. Account assignment information for time wage types is transferred to *R/3 Controlling*. This information is posted to the applicable Controlling object.

Example



1. You carried out cost assignments for the order 4700 and for cost center 1000 in the *Attendances* infotype (2002).
2. The data is transferred to *Payroll*.
3. During valuation in *Payroll*, the following costs were calculated for the individual Controlling objects:

- Order 4700 US$175.00

- Cost center 1000 US$200.00

4. The account assignment information is transferred to *Controlling*. Order 4700 is debited with US$175.00 and cost center 1000 with US$200.00.

If no other individual cost assignments follow for the remaining payroll periods, the remaining personnel costs are posted to the employee's master cost center.

Cost Assignment with Activity Types

Use

This function allows you to debit a cost center/activity type [Ext.] directly with actual *R/3 Controlling* (CO).

For more information on posting to *R/3 Controlling*, see Posting Actual Costs to Activity Type [Ext.].

Integration

The recorded time data is transferred to *Payroll* (PY) and processed further there. Personnel costs are determined in *Payroll* (PY) and transferred to *R/3 Controlling* (CO).

Debiting the cost center/activity type with actual costs only makes sense if *activity allocation* is first carried out for this cost center/activity type.

During cost assignment with activity types, you must always enter a cost center as the account assignment object.

Prerequisites

In the Customizing *Permit assignment of personnel costs* step in the Implementation Guide (IMG) for **Personnel Time Management**, you must define the following:

- Which infotypes can be used for recording cost assignments
- What Controlling objects are taken into account in cost assignment

Features

In the standard R/3 System, you can enter cost assignments for the following infotypes:

- *Absences* (2001)
- *Attendances* (2002)
- *Substitutions* (2003)
- *Availability* (2004)
- *Overtime* (2005)
- *Employee Remuneration Info* (2010)
- *Time Events* (2011)

Cost assignments with activity types cannot be recorded using the weekly or fast entry screens.

Recording Cost Assignments with Activity Types

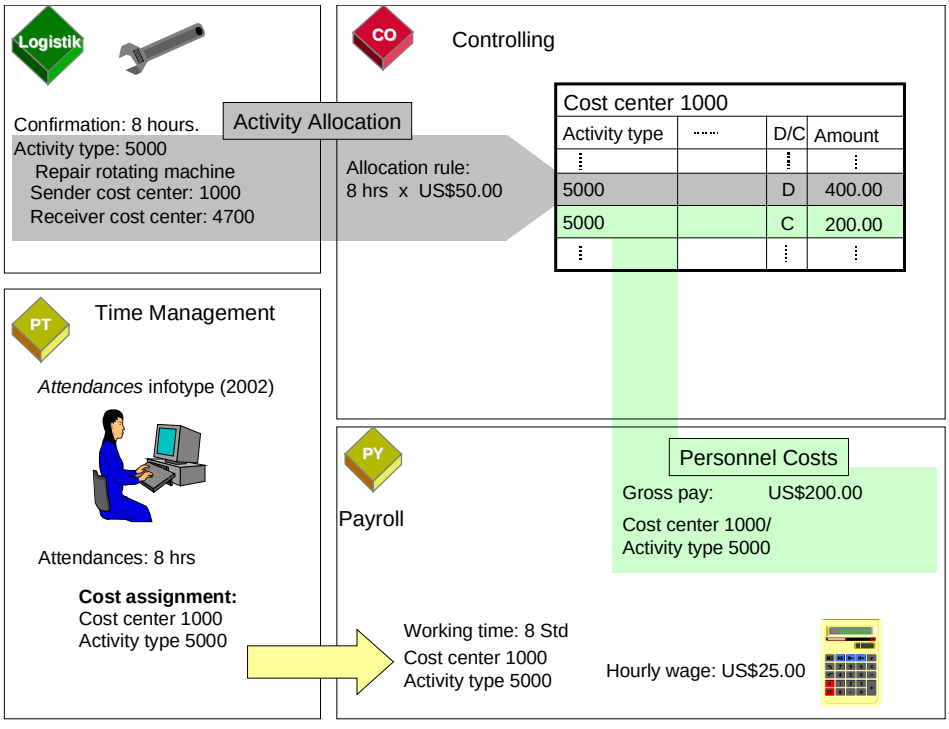
Purpose

If an activity type is entered with the cost assignment, then the cost center/activity type is directly debited in *R/3 Controlling* (CO). In this way, you get a more exact comparison of planned and actual values in *R/3 Controlling*. The prerequisite, however, is that activity allocation was already carried out in another system.

Process Flow

5. You recorded attendance hours with a cost assignment and activity type.
6. Data is transferred to *R/3 Payroll*.
7. The time data is valuated in monetary terms in *Payroll* and stored as time wage types. These time wage types inherit account assignment information from the time data with cost assignment. Symbolic accounts are then assigned to the time wage types with account assignment.
8. Account assignment information for time wage types is transferred to *R/3 Controlling*. This information is posted to the applicable cost center/activity type.

Example



5. You recorded a confirmation in *R/3 Logistics*. An employee from production repairs a rotating machine belonging to cost center 4700 for the cost center 1000 (Plant Maintenance). The *R/3 Logistics* confirmation creates an activity allocation with the activity type 5000 in *R/3 Controlling*.

Recording Cost Assignments with Activity Types

6. In *R/3 Controlling*, the cost center 1000 is credited according to the activity type and the assigned pay scale ($50.00/hours) and the cost center 4700 is debited US$400.00.
7. In *R/3 Time Management*, a cost assignment for the cost center 1000 with the activity type 1000 is carried out in the *Attendances* infotype (2002).
8. The data is transferred to *Payroll*.
9. In the valuation in *R/3 Payroll*, costs are calculated for the cost center 1000/activity type 5000 in the amount of US$200.00.
10. The account assignment information is transferred to *Controlling*. There, the cost center 1000/activity type 5000 is directly debited by US$200.00.

If no other individual cost assignments follow for the remaining payroll periods, the remaining personnel costs are posted to the employee's master cost center.

Recording Cost Assignments

Use

By defining cost assignments in a dialog box, you can assign an employee's time infotype record and the resulting personnel costs to a Controlling object.

Procedure

8. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain*.
9. Enter the personnel number of the employee.
10. Select a time infotype to be maintained.
11. Enter a *time event type* and *validity period* as required and choose *Create*.

    The time infotype maintenance screen appears. Maintain the employee's time data here.
12. Choose *Cost Assignment*.

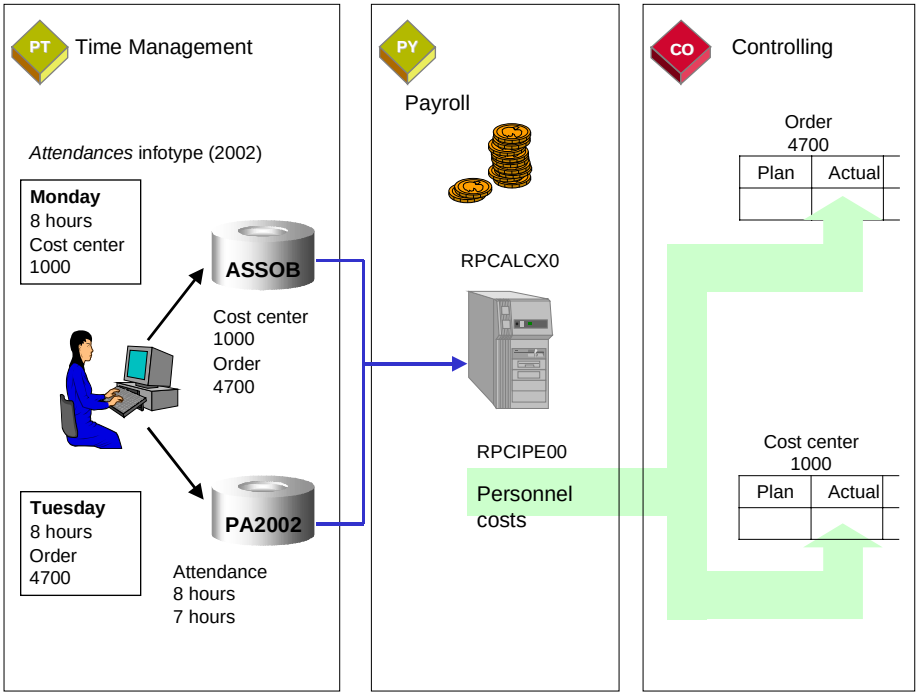
    The *Cost Assignment Specifications* dialog box appears.

    This dialog box can be modified to suit the specific requirements of your enterprise. Contact your system administrator for more information.
13. Enter the required *R/3 Controlling* information and choose *Transfer*. The entry screen appears.
14. Save your entries.

Data Flow for Cost Assignment

The following describes the data flow for recording cost assignments in *Time Management (PT)* and transferring them to *Controlling* (CO).



1. The time data for the infotype record is stored in the transparent table *Personnel Time Record* infotype *XXXX* (PAXXXX).

   The data for cost assignment specifications is checked by *R/3 Controlling* when entered and then stored in the transparent table ASSOB.

2. Data from PAXXXX and ASSOB is evaluated and processed by the payroll driver RPCALCX0 in *Payroll*.

   The *Time Evaluation* report RPTIME00 also processes time data with account assignment. Time wage types determined in report RPTIME00 inherit the account assignment of the time data.

   Symbolic accounts are assigned to the time wage types with account assignment by report RPCALCX0. In this way, additional special processing of the posting data resulting from the time wage types can be carried out.

3. Report RPCIPE00 (*Posting to Accounting: Create Posting Run*) transfers the data to *Accounting.* The *Financial Accounting* (FI) and *Controlling* (CO) components are provided with the account assignments.

For more information, see Posting to Accounting [Ext.].

External Services

Purpose

The *External Services* component provides evaluated and employee-based working time information. Evaluated working times contain specific information relevant for purchasing and are used in the *Purchasing* component to check and account for external services.

By integrating the *External Services* (MM-SRV) component with functions from the *Time Management* component, you can record, validate, and evaluate employee-related time data.

Implementation Considerations

If you want to use this function, you should be familiar with the Customizing options for time evaluation.

Integration

Integration with Other Components

Function	Required Components
Managing external service providers, monitoring external services in purchasing	*Materials Management - External Services* (MM-SRV) Time Evaluation
Recording work performed by external employees	Time Recording

Features

- You can record the working and absence times for external employees using *Time Management* functions. Time data with specifications for recording external services can be recorded using the *Attendances* infotype (2002). The following information is stored in this infotype:
- Purchasing document [Ext.] with item number indicating the service
- Service number [Ext.]
- Job key If necessary, you can use the key to enter information on an employee's qualifications.
- You can use these functions when recording attendances to manage attendance approvals.
- Recorded time data is processing in *Time Evaluation*. Standard *time evaluation* contains a specifically designed process for evaluating external services. Time evaluation identifies the times spent performing services that have a greater value (overtime, night work, Sunday work, and so on). Time evaluation identifies the times spent performing services that have a greater value (overtime, night work, Sunday work, and so on).
- This information on services with a higher value can be compared with basic purchasing data so that the external services are posted with other service numbers there.

Maintaining Absences for External Services

Use

You can use the *Attendances* infotype (2002) in the *Time Management* (PT) component to process external employees' time data.

You can also maintain external services using the weekly entry in the *Attendances* infotype (2002). For more information, see Maintain Additional Data for Employees in the Weekly Entry Screen [Page 279].

Procedure

1. Choose *Human resources* → *Time management* → *Administration* → *Time data* → *Maintain.*

   The *Maintain Time Data* screen appears.

2. Enter the personnel number of the external employee.
3. Select the *Attendances* infotype (2002).
4. Enter the subtype and validity period and choose *Edit* → *Create*.

   The entry screen for the *Attendances* infotype (2002) appears.

5. Maintain the employee's time data.
6. Choose *Goto* → *Accounting /Logistics specs* → *External services.*

   The *External Services* dialog box appears with the fields for *SAP Purchasing*.

   This dialog box can be modified to suit the specific requirements of your enterprise. Contact your system administrator for more information.

7. Make the required entries for the purchasing document, its item number, the service number, and the job key.

   For more information on the external services, see the section on *External Services* in the *SAP Materials Management* documentation.

8. Save your entries.

Result

You have now maintained data for external services using *SAP Time Management* functions.

Prerequisites for Recording External Services in Time Management (PT)

The following prerequisites must exist so that external services can be recorded using the Time Management component:

1. Service agreement or contract exists between your enterprise (Enterprise A) and the external enterprise (Enterprise E).
2. According to contractual agreements, employees from Enterprise E work in a plant or office location of Enterprise A.
3. The amount of remuneration that Enterprise A must pay an employee from Enterprise E for one work hour is specified in the contract. This amount is stored in the *Material Management - Purchasing* (MM-SRV) component in the form of a service number. In the service selections, various types of services are keyed differently. The compensation for the service depends on the qualifications of the employee, the type of activity, the time the activity is performed, and so on.

   Service numbers:

   - Supervisor hours
   - Apprentice hours
   - Painter hours
   - Overtime bonuses for painting hours after 10:00 p.m. on weekends

The following prerequisites must exist so that external services can be recorded and processed using the Time Management component:

1. The integration of the *Time Management* and *Materials Management* components must be set up in Customizing. For more information, see the Implementation Guide (IMG) for *Integrating Time Management with Other R/3 Applications* → *Recording External Services*.
2. External employees must be entered in the *Human Resources* (HR) component. They must have their own personnel numbers.

   To record time data for external employees, you must at least maintain the HR master data in the *Organizational Assignment* infotype (0001) and *Planned Working Time* infotype (0007).

   To do so, create your own *action* in the *Actions* infotype (0000) for external employees. Use the standard action *Time Recording Mini-Master* as a guide.

   If you want to create your own organizational units such as employee groups for external employees, you must first carry out the appropriate steps in Customizing.
3. Personnel numbers for external employees must first be assigned to a payroll area.

Each personnel number must be assigned to a payroll area in *Human Resources*. Payroll is not calculated for external employees, however in the *Payroll* component in *R/3 Human Resources*. As a result, the following options are available:

- Assign the personnel numbers to a payroll area that is keyed as ***not included in accounting*** in Customizing.
- Set up your own payroll area for the external services employees.

  For more information, see the *Create payroll area* step in the Implementation Guide (IMG) for **Payroll** (PA).

4. External employees must be assigned to the *Time Management status 8* (= External Services) in the *Planned Working Time* infotype (0007).
5. To determine and account for overtime, night work, Sunday work, and so on, a work schedule rule must be assigned to the external employees in the *Planned Working Time* infotype (0007).
6. In the *Job key*, you can store information regarding the qualification of employees. For more information, see the Define permitted objects step in the Implementation Guide (IMG) for **Personnel Time Management** (PT).

Data Flow for Integration of External Services

Purpose

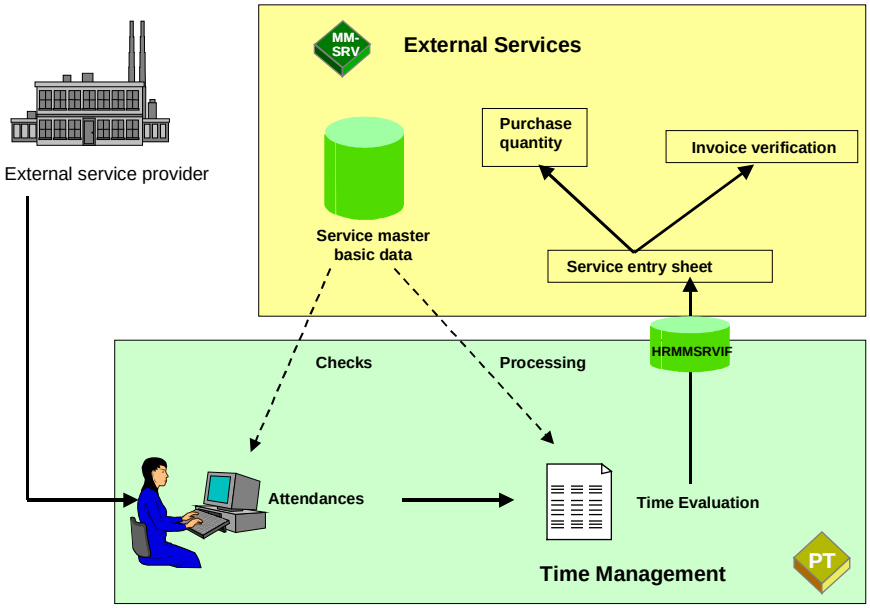
By integrating the *Time Management* (PT) component with the *External Services Management* (MM-SRV) component, you can record and valuate work performed by external employees.

You record external services using the *Attendances* infotype (2002). In addition, you can use the *Absences* (2001) and *Attendance Quotas* (2007) infotypes.

Prerequisites

For more information, see Prerequisites for Recording External Services in Time Management [Page 704].

Process Flow



Time data adhere to the following path after they are recorded:

1. Duration of the attendance is stored in the transparent table *Personnel Time Record* infotype 2002 (*PA2002*). The external services data (account assignment data) is validated in the *External Services Management* (MM-SRV) component and then stored in the transparent table ASSOB (*Assignment Records*).
2. Data from PA2002 and ASSOB is calculated in the time evaluation report. The standard schema TM02 was specifically designed to evaluate external services.

The standard schema TM02 forms time wage types. These time wage types inherit time data from the *Attendances* infotype (2002). Time evaluation results are saved in the PCL2 database cluster B2, time wage types in table ZL, and account assignment data in table C1. The data records are linked by the ZL-C1ZNR pointer.

3. A feature of the standard schema TM02 is that the time wage types and their corresponding account assignment are compared to the MM-SRV table *Service Master-Basic Data* (ASMD) before they are exported to cluster B2. Depending on the time wage type determined in time evaluation (and its originally recorded service number), a new service number can be automatically assigned to the time wage type. New service numbers can be used, for example, to give certain services such as night work or overtime a greater value.
4. The new service numbers are validated using table MM-SRV to see if they are included in the relevant service contracts. Thus, special compensation for certain services is ensured.
5. The *Time Evaluation* report (RPTIME00) exports time wage types along with their account assignment data to the interface table HRMMSRVIF. The data must be retrieved for further processing online from MM-SRV when creating a service entry sheet .

   After updating table HRMMSRVIF, processing in the *Human Resources* component is complete.

Time Evaluation for External Services

Use

External services are evaluated in *Time Evaluation* (RPTIME00). The standard schema TM02 is a minimized version with the required functions to generate wage types for evaluating time data for external service providers. The schema is specifically modified to include the requirements for evaluating external services.

Prerequisites

Modify schema TM02 if you want to create your own personnel calculation rules for evaluating external services.

Use the standard schemas TM00 or TM04 as you guide if you want to include additional functions in the schema TM02. For more information, see the Implementation Guide (IMG) for sections on *Time Evaluation with Personnel Time Events* (TM00) and *Time Evaluation without Clock Times* (TM04).

Features

The characteristics that differentiate schema TM02 from the other standard schemas are highlighted in the following section. As a result, you should already understand the concept behind the *Time Evaluation* report (RPTIME00) and schema TM00. For more information, see R/3 Time Evaluation [Page 398].

Evaluate External Employees

The CHECK - SRV function ensures that only employees who are assigned to *Time Management status 8* (External Services) in the *Planned Working Time* infotype (0007) are included in accounting process.

Set Up Wage Types

No balances are determined in schema TM02. Instead, the focus is on setting up the wage types that are to be transferred to *Materials Management* (MM-SRV).

Integrate the functions for balance formation, if you want to form balances. This makes sense if, for example, you want to set up a compensation account for external employees. Use the standard schemas TM00 or TM01 as your guide.

Evaluate on Hourly Basis

If you do not want to record the clock-in and clock-out times for external employees, you only need to record and evaluate the attendance hours for external employees. You can use the new TYPES function to evaluate time data recorded without clock times.

Use the standard schema TM04 as a guide for modifying the schema TM02 if you want to record time data without clock times for account assignments of external services.

Determine Actual Times from Attendances Infotype (2002)

The *Time Evaluation* (PA-TIM-EVA) normally requires an entry in the time Recording Information infotype (0050). The CHECK-NOTR (*No Time Recording*) function specifies that information from *the Time Recording Information* infotype (0050) is not to be used. This function is required if you do not want to record employees' actual times using external time recording terminals or the *Time Events* infotype (2011), but with the *Attendances* infotype (2002).

When you record times for external employee times using time recording terminals, make sure that you have not yet recorded data for external services using the *Time Events* infotype (2011).

Determine Overtime

As in schema TM00, a number of variants exist for determining overtime.

Check the characteristics in processing class 17 by overtime wage types you are using.

Export Data in Table HRMMSRVIF

The MMSRV function allows you to evaluate the time wage types determined and their corresponding account assignment data using the MM-SRV table ASMD (Service Master - Basic Data). This will eventually determine a new service number. First, however, the interface table HRMMSRVIF must be updated.

To ensure retroactive accounting capacity:

During each payroll run, the time wage types from the last payroll run are compared with the new time wage types determined. The differences are evaluated using table ASMD and then put into the interface table HRMMSRVIF.

Retrieving External Services Data from R/3 Human Resources to be Used in R/3 Materials Management

Use

You can retrieve time wage types stored in the interface table HRMMSRVIF in the *Human Resources* (HR) component to be used in the *Materials Management* (MM) component.

For an overview of the time data recorded in HR with purchase order specifications, calculated using RPTIME00, and stored in the interface table HRMMSRVIF, choose *Logistics → Materials management → Service entry → Environment → Display HR data*

Procedure

1. Choose *Logistics → Materials management → Service entry → Maintain service entry*.

   The *Maintain Service Entry Sheet* appears.

2. Enter the purchase order and confirm your entry.

   The *Maintain Service Entry: Overview* screen appears.

3. You can now access a service entry sheet already created or add a new one.

   – To modify an existing service entry sheet, select an entry and then choose *Service entry sheet Details*.

   – To create a new service entry sheet, choose *Edit → Add*.

   The *Service Entry Sheet XY: Change* or *Add* screen appears.

5. Choose *Services*.

   The *Maintain Purchase Order XYZ* screen appears.

6. Choose *Service selections → Time recording selection*.

7. Select the posting date up to which you want to import data from *Time Management*.

8. Choose *Continue*.

   All of the time data recorded for the purchase order is automatically transferred to the *Services Overview*.

Result

You recorded and evaluated time data with account assignment in *Time Management* and then imported this data in *Materials Management*.

Connection with External Time Recording Systems

Use

This function allows you to upload personnel time events recorded at a time recording system to *R/3 Time Management* (PT). The personnel time events are then processed further in *R/3 Time Management*, so that recorded times can be monetarily valuated at the end of the process in *R/3 Payroll Accounting* (PY), ultimately resulting in salary and wages payments for employees.

Time recording systems are connected to the *R/3 Time Management* component via the *Plant Data Collection: Employee Times and Expenditures (HR-PDC)* interface. HR-PDC is a certified interface, that is, providers of time recording systems can earn certification for their software to communicate with *R/3 Time Management*.

Release 4.5A includes two versions of the interface. The old interface is connected via Communication Channel 1 (CC1).

:

1. Transceiver-Based Transfer [Ext.] (as of R/3 System Release 3.0)
2. BAPI-based transfer (as of Release 4.5A)

The following information deals specifically with the version based on BAPI technology.

Integration

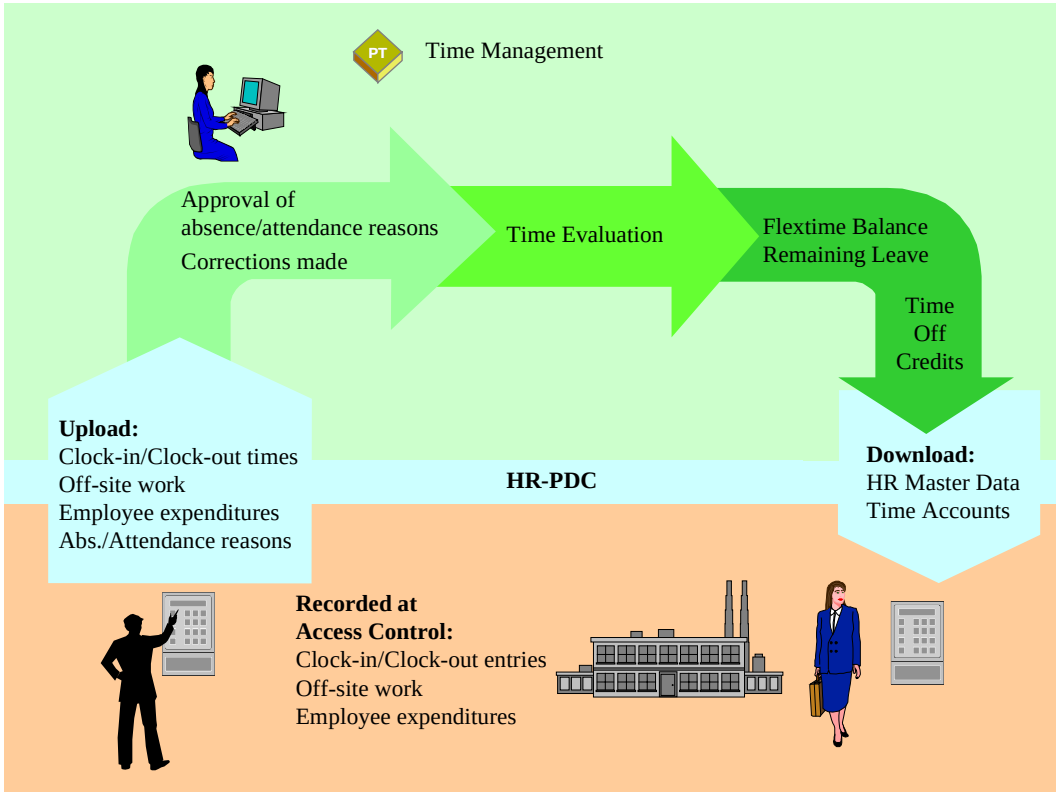
Via HR-PDC, both personnel time events and employee expenditures (external wage types, cafeteria or service station data) can be uploaded to *R/3 Time Management*.

Two variants of the business process are available:

1. Recording Absence Times [Page 714] , including the following modules
   a) Clock-in/Clock-out Time
   b) Clock-in or Clock-out Entry
   c) Different Payment
      (in addition to Clock-in/Clock-out Time or Clock-in or Clock-out Entry
   d) Cost Assignment
   e) Additional Time Event Types
2. Employee Expenditures [Page 732] (can be implemented separately)

The certification process for time recording systems takes place in modules. At least one of the modules detailed here must be certified.

Connection with External Time Recording Systems



Prerequisites

The Customizing steps described in the *Personnel Time Events* section of the Implementation Guide (IMG) for *Personnel Time Management* (PT) should be carried out.

The time event types are permitted depend upon the modules implemented in your system, as follows:

Time Event Type	Function	Modules
P01	Clock-in or Clock-out Entry	Clock-in or Clock-out Entry
P02	Start or end of off break	Clock-in or Clock-out Entry
P03	Start or end of off-site work	Clock-in or Clock-out Entry
P04	Start or end of off-site work at home	Clock-in or Clock-out Entry
P05	Interim posting	Clock-in or Clock-out Entry, Clock-in/Clock-out Time, Additional Time Event Types
P10	Clock-in	Clock-in/Clock-out Time

P11	Change	Clock-in or Clock-out Entry, Clock-in/Clock-out Time, Different Payment, Cost Assignment
P15	Start of break	Clock-in/Clock-out Time
P20	Clock-out	Clock-in/Clock-out Time
P25	End of break	Clock-in/Clock-out Time
P30	Start of off-site work	Clock-in/Clock-out Time
P35	Start of off-site work at home	Clock-in/Clock-out Time
P40	End of off-site work	Clock-in/Clock-out Time
P45	End of off-site work at home	Clock-in/Clock-out Time
P50	Employee expenditures (external wage type)	Employee expenditures
P60	Information posting	Clock-in or clockout, clock-in/clock-out times

Processing Personnel Time Events

Use

This function allows you to process personnel time events recorded at a time recording system in *SAP Time Management* (PT).

Integration

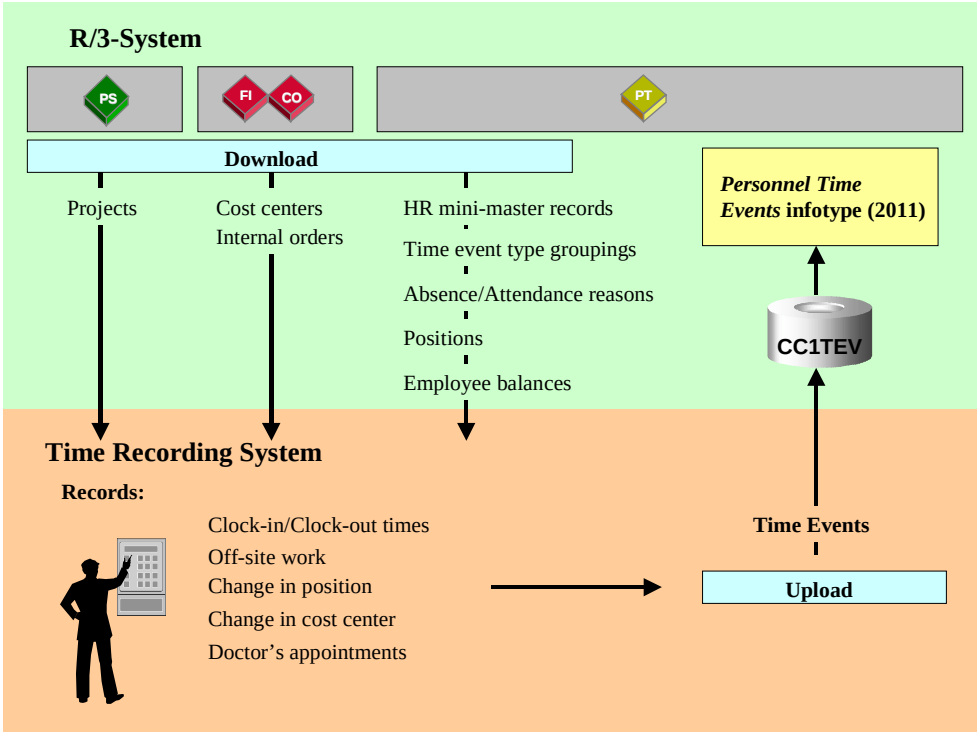
SAP System Functions

- Managing HR master data records
- Forming pairs to determine payment-relevant time periods
- Determining time balances

External System Functions

- Recording time events
- Displaying information for employees at recording terminals
- Checking data against master data from the SAP System

Data Flow



Data is sent from the SAP System to the time recording system to be checked or to be displayed for employees.

Providing external time recording systems with data from the SAP System is called a “**download**.”

Providing time recording systems with permitted cost centers, internal orders and customer orders occurs in *SAP Controlling* (CO).

Providing time recording systems with permitted projects occurs in *SAP Project System* (PS).

The other data is downloaded from *SAP Time Management* (PT) to the time recording system.

In external time recording systems, the time events (such as clock-in/clock-out times) are recorded and then checked against the data downloaded from the SAP System.

The data recorded is then uploaded to *SAP Time Management* in the Time Events [Page 219] infotype (2011). The time events can be processed further to determine attendance durations.

Providing the SAP System with data from external time recording systems is called an “**upload**.”

Prerequisites

Clock-in/Clock-out Time Module

This module is implemented if you need employees to specifically enter a time event type at the time recording terminal.

When clocking-in, employees must swipe their time ID card at the time recording terminal as well as press the clock-in button.

Clock-in or Clock-out Entry Module

This module is implemented if you want the time event type entered to be based on the employee’s existing absence or attendance status at that particular moment.

When clocking-in, employees must swipe their time ID card at the time recording terminal. If the employee’s existing status is “absent,” then this entry is automatically recorded as “clock-in.”

Different Payment Module

This module is implemented only if you want employees to enter an different, or alternative, payment at the time recording terminal.

Processing Personnel Time Events

When clocking-in, employees enter the position for which they will perform tasks in the following hours. After the upload, employees are assigned the payscale of this alternative position.

Process Flow for the Business Process: Processing Personnel Time Events

Purpose

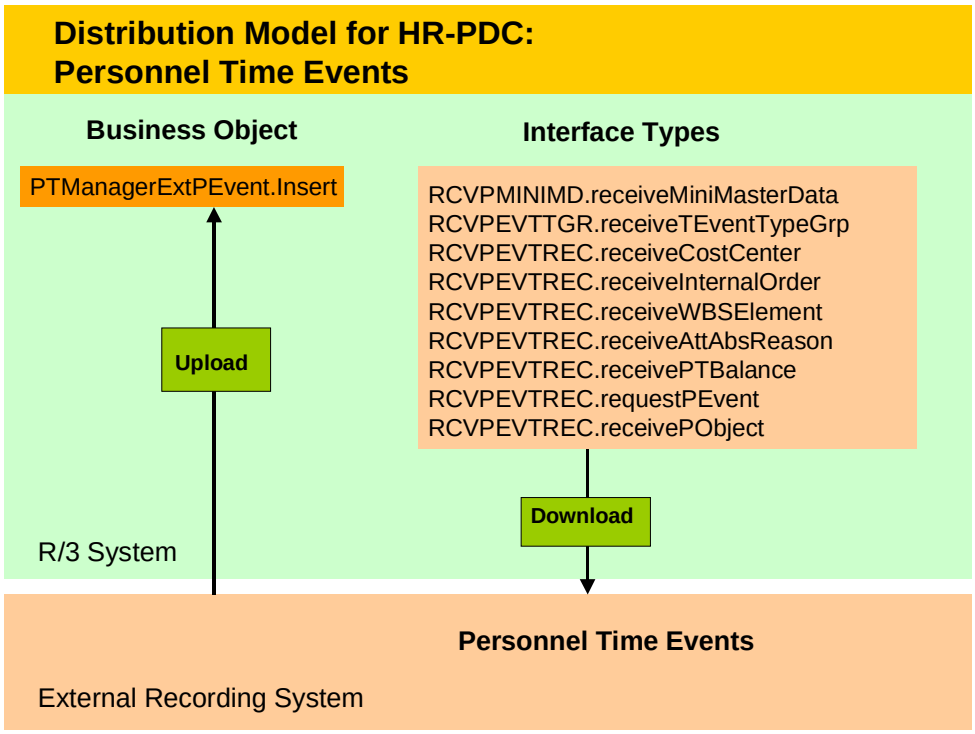
The business process “Connecting Personnel Time Events” is described here in more detail.

Prerequisites

The Time Recording Info [Page 154] infotype (0050) must be maintained for employees who are permitted to record information at an external time recording system.

Process Flow

The following graphic displays the business object along with the interface types and methods that are required for external time recording systems to communicate with the SAP R/3 System.



- Downloading HR Mini-Master Records [Page 736] (PT)
- Downloading Time Event Type Groupings [Page 738] (PT)
- Downloading Employee Balances [Page 722] (PT)
- Downloading Absence/Attendance Reasons [Page 723] (PT)
- Downloading Positions [Page 725] (PT)
- Downloading Cost Centers [Page 726] (CO)

Process Flow for the Business Process: Processing Personnel Time Events

- Downloading Internal Orders [Page 728] (CO)
- Downloading Projects [Page 729] (PS)
- Uploading Personnel Time Events [Page 730]

Download HR Mini-Master Records

Use

Downloading a HR mini-master record is necessary for processing both time events and employee expenditures.

The HR mini-master record is required for checking employee data in the time recording system

Prerequisites

You have to create a *Time Recording Info. (Information)* infotype (0050) for every employee whose data you want to download in the time recording system.

The download takes place for the valid period specified in the report **RPTCC101** (*HR-PDC: Download HR Mini-Master*).

Keep in mind that the HR mini-master record is downloaded regardless of the employee's status (check the *Actions* infotype (0000)). In the *Leaving* event, the system defaults to the *Time Recording Info.* infotype (0050) so that you can delimit the data accordingly.

In this way, you can stipulate that a particular employee who left the company is still granted access authorization.

A minimum of one record is downloaded for each employee. If any relevant employee master data changes in this period, then a number of records are downloaded with corresponding limited valid periods.

For example, you download HR master data records for four days on January 1, 1998, at 1:30 a.m.

The following data is downloaded for each selected employee, according to the validity of the *Time Recording Info.* infotype (0050) and depending on changes made to that employee's master data:

- Master data record, valid from January 1, 1998, to January 4, 1998
- Master data record, valid from January 2, 1998, to January 4, 1998, if the employee's *Time Recording Info.* infotype (0050) did not exist before January 2, 1998
- Master data record valid from January 1, 1998, to January 1, 1998; and an additional master data record, valid from January 2, 1998, to January 4, 1998, if the employee's off-site work authorization changes on January 2, 1998.

Procedure

Run report RPTCC101 (*HR-PDC: Download HR Mini-Master Record*).

Downloading the HR mini-master record can also be scheduled periodically as a batch job. Schedule the report **RPTCC101** in the Customizing section of either *Personnel Time Events* or *Employee Expenditures* in the Implementation Guide (IMG) for **Personnel Time Management**.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPMINIMD (Receiver for HR Mini-Master)

Method

receiveMiniMasterData

Message Type

HRCC1DNPERSO (CC1: *Download HR Mini-Master)*

Downloading Time Event Type Groupings

Use

Downloading time event type groups is required for processing both time events and employee expenditures.

You can group together time event types in time event type groupings. These groupings must be created for in order for various checks to be carried out at the time recording system. Employees can only make entries for these time event types.

Prerequisites

In the Customizing section for *Personnel Time Management* in the Implementation Guide (IMG), the time event type groupings must be defined in the *Set time event type groupings* step.

Procedure

Run report RPTCC105 (*HR-PDC: Download Time Event Type Groupings*).

Downloading the time event type groupings can also be scheduled periodically as batch jobs. Schedule report RPTCC105 from the Customizing steps in either *Personnel Time Events* or *Employee Expenditures* section in the Implementation Guide (IMG) for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTTGR

Method

receiveTimeEventTypeGrp

Message Type

HRCC1DNTEVGR

Downloading Employee Balances

Use

Balances can be called up by employees at the time recording terminal. In this way, employees can view their flextime balances and leave entitlement.

Prerequisites

The employee balances that should be displayed for each employee group must be defined in the Customizing section for *Personnel Time Management* in the Implementation Guide (IMG). To do so, carry out the *Set the data to be displayed at the terminal* step.

Procedure

Run report RPTCC102 (*HR-PDC: Download Employee Balances*) by choosing *Human resources → Time Management → Administration → Environment → Subsystem connection → Time events → Balances*.

Downloading the employee balances can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs → Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receivePTBalance

Message Type

HRCC1DNBALAN

Downloading Absence/Attendance Reasons

Use

Employees can enter their absence and attendance reasons directly at the terminal if the configuration of your time recording system supports this function. In this way, employees can enter a doctor's appointment or flextime in lieu with their clock-in/clock-out entry, for example.

An absence or attendance reason can be entered with both clock-in (P10) and clock-out (P20) time events.

The absence or attendance reasons entered by the employees are checked by the time recording system.

Based on the absence or attendance reason entered by the employee, the system generates a partial-day absence or attendance record for the current day, or a full-day record for the previous or subsequent workday.

Prerequisites

The following Customizing steps in the *Personnel Time Management* section of the Implementation Guide (IMG) must be carried out:

- *Set groupings for absence/attendance reasons at the subsystem*
- *Maintain absence/attendance reasons*

Procedure

Run report RPTCC103 (*HR-PDC: Download Attendance/Absence Reasons*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Attendance/absence*.

Downloading absence and attendance reasons can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receiveAttAbsReason

Message Type

HRCC1DNATTAB

Downloading Objects

Use

Employees can enter a different payment than that which is specified in their *Basic Pay* infotype (0008) at the time recording terminal.

The time recording system checks if the objects (such as positions) recorded by the employees exist in the R/3 System.

Prerequisites

Only objects (such as positions) that are already saved in the table T528B can be entered.

Procedure

Run report RPTCC110 (*HR-PDC: Download Objects*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Objects*.

Downloading objects can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receivePObject

Message Type

HRCC1DNOBJID

Downloading Permitted Cost Centers

Use

By downloading the permitted cost centers, you provide the time recording system with a selection of possible entries as well as the capability of checking the data entered by employees.

The download occurs for a pre-defined valid duration.

Procedure

Run report RPTCC107 (*HR-PDC: Download Cost Centers*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Cost centers*.

Downloading the permitted cost centers can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

By selecting the *Cost Center Group* and the *Logical System* in report RPTCC107, you can specify that only certain cost centers are downloaded to the various time recording systems.

To do so, enter in the system the applicable cost center groups from which you want a download to take place.

Choose *Accounting* → *Controlling* → *Cost centers* → *Cost center groups* → *Create*.

Enter the cost center group with semantic reference to the Plant Data Collection (PDC) groups so that you can see an overview during the download.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receiveCostCenter

Message Type

RCC1DNCOSTC

Downloading Permitted Internal Orders

Use

By downloading the permitted internal orders, you provide the time recording system with a selection of possible entries as well as the capability of checking the data entered by employees.

Procedure

Run report RPTCC111 (*HR-PDC: Download Internal Orders*) by choosing *Human Resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Internal orders*.

Downloading permitted internal orders can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

By selecting the *Internal Order Group* and the *Logical System* in report RPTCC111, you can specify that only certain internal orders are downloaded to the various time recording systems.

To do so, enter in the system the applicable internal order groups from which you want a download to take place.

Choose *Accounting* → *Controlling* → *Internal orders* → *Master data* → *Internal order groups* → *Create*

Enter the internal order groups with semantic reference to the Plant Data Collection (PDC) groups so that you can see an overview during the download.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receiveInternalOrder

Message Type

HRCC1DNINORD

Downloading Permitted Projects

Use

By downloading permitted projects from the *Project System* (PS), employees can assign their working times directly to the applicable project at the time recording terminal.

The data entered in the time recording terminal by the employees is checked in the time recording system.

Procedure

Run report RPTCC108 (*HR-PDC: Download Work Breakdown Schedule Elements*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Projects*.

Downloading permitted projects can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC

Method

receiveWBSElement

Message Type

HRCC1DNWBSEL

Uploading Personnel Time Events

Use

Uploading personnel time events enables all of the time events entered in the time recording system to be uploaded to *R/3 Time Management* (PT).

The personnel time events uploaded to the R/3 System are stored in the table CC1TEV. These time events can be processed using the report SAPCDT45. The time events can then be displayed and changed manually in the Time Events [Page 219] infotype (2011).

Procedure

Uploading personnel time events occurs in two steps:

1. Downloading the upload request from *R/3 Time Management* to the time recording system.

   Run report RPTCC106 (*HR-PDC: Download Upload Request for Time Events*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Time events* → *Upload request for time events*.

2. Uploading the time events entered from the time recording system in *R/3 Time Management*.

   The upload is started from each time recording system.

   Downloading the upload requests can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the IMG for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC to download the upload request

Business Object

BUS7014 Manager for External Personnel Time Event for the Upload

Methods

- requestPEvent (Download the Upload Request)
- PTManagerExtPEvent.Insert (Upload)

Message Type

- RCVPEVTREC to Download the Upload Request
- HRCC1UPTEVEN for the Upload

Processing Employee Expenditures

Use

This function allows you to process employee expenditures recorded at an external recording system in *SAP Time Management* (PT).

Cafeteria and service station data are both considered employee expenditures.

Integration

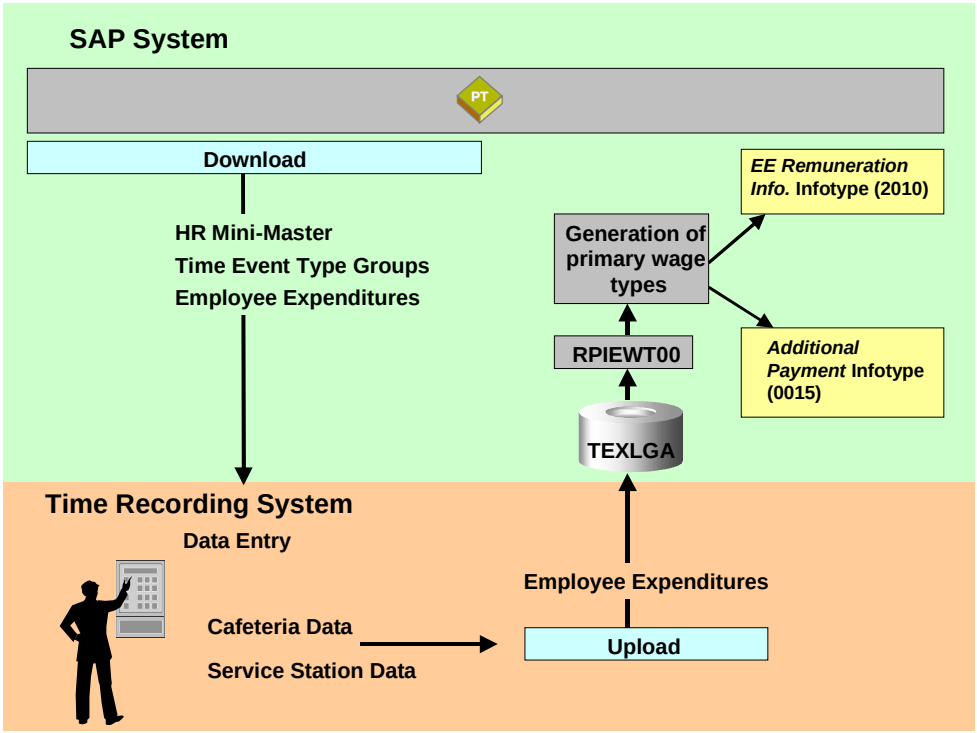
SAP System Functions

- Managing HR master data records
- Generating primary wage types for *SAP Payroll* (PY).
- Storing employee expenditures in the *EE Remuneration Info* (2010) or *Additional Payment* infotypes (0015) infotypes.

External Systems Functions

- Processing employee expenditures
- Displaying information for employees at recording terminals
- Validating data against master data from the SAP System

Data Flow



Data is sent from the SAP System to the external time recording system to be checked or to be displayed for employees.

Providing external time recording systems with data from the SAP System is called a "**download**."

The data is downloaded from *SAP Time Management* (PT) to the time recording system.

Employee expenditures are recorded in external time recording systems and then checked against the data downloaded from the SAP System.

The data recorded is then uploaded to *SAP Time Management* from the external recording system and stored in the table TEXLGA. Primary wage types for use in *SAP Payroll* are generated from the employee expenditures stored in this table. Data records are then created with these primary wage types in the EE Remuneration Info. [Page 216] (2010) *or* Additional Payment [Ext.] (0015) infotypes.

Process Flow for the Business Process: Processing Employee Expenditures

Purpose

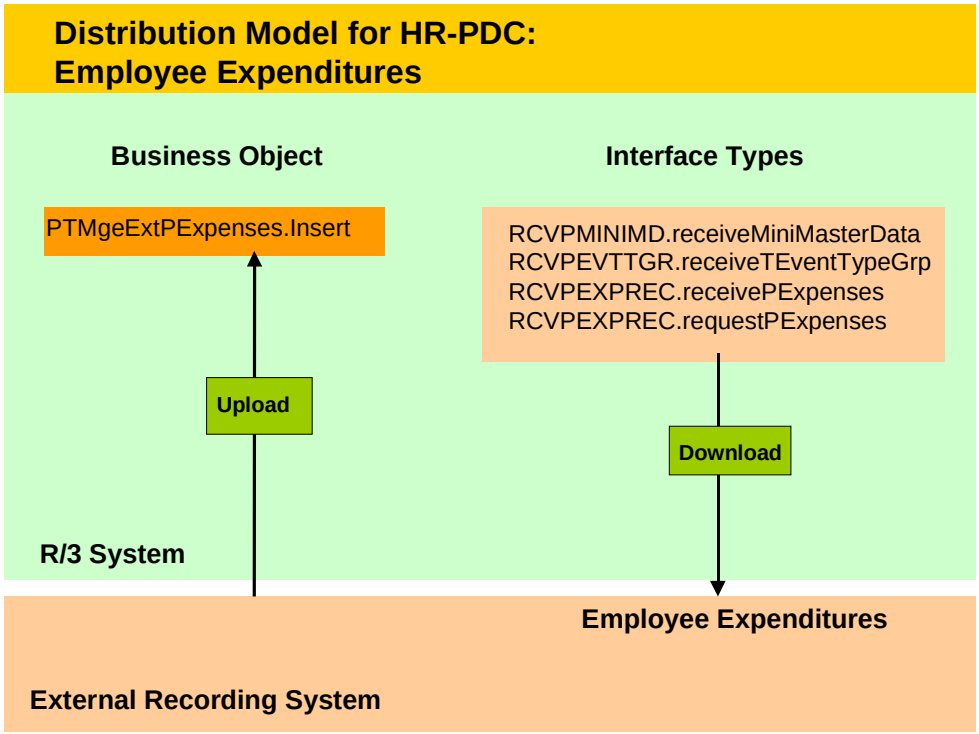
The business process “Processing Employee Expenditures” is described here in more detail.

Prerequisites

The Time Recording Info. [Page 154] infotype (0050) should be maintained for employees who are going to record their expenditures at an external time recording system.

Process Flow

The following graphic displays the business object along with the interface types and methods that are required for the external time recording system to communicate with the SAP R/3 System.



- Downloading HR Mini-Master Records [Page 736] (PT)
- Downloading Time Event Type Groupings [Page 738] (PT)
- Downloading Employee Expenditures [Page 739] (PT)
- Uploading Employee Expenditures [Page 740]

Download HR Mini-Master Records

Use

Downloading a HR mini-master record is necessary for processing both time events and employee expenditures.

The HR mini-master record is required for checking employee data in the time recording system

Prerequisites

You have to create a *Time Recording Info. (Information)* infotype (0050) for every employee whose data you want to download in the time recording system.

The download takes place for the valid period specified in the report **RPTCC101** (*HR-PDC: Download HR Mini-Master*).

Keep in mind that the HR mini-master record is downloaded regardless of the employee's status (check the *Actions* infotype (0000)). In the *Leaving* event, the system defaults to the *Time Recording Info.* infotype (0050) so that you can delimit the data accordingly.

In this way, you can stipulate that a particular employee who left the company is still granted access authorization.

A minimum of one record is downloaded for each employee. If any relevant employee master data changes in this period, then a number of records are downloaded with corresponding limited valid periods.

For example, you download HR master data records for four days on January 1, 1998, at 1:30 a.m.

The following data is downloaded for each selected employee, according to the validity of the *Time Recording Info.* infotype (0050) and depending on changes made to that employee's master data:

- Master data record, valid from January 1, 1998, to January 4, 1998
- Master data record, valid from January 2, 1998, to January 4, 1998, if the employee's *Time Recording Info.* infotype (0050) did not exist before January 2, 1998
- Master data record valid from January 1, 1998, to January 1, 1998; and an additional master data record, valid from January 2, 1998, to January 4, 1998, if the employee's off-site work authorization changes on January 2, 1998.

Procedure

Run report RPTCC101 (*HR-PDC: Download HR Mini-Master Record*).

Downloading the HR mini-master record can also be scheduled periodically as a batch job. Schedule the report **RPTCC101** in the Customizing section of either *Personnel Time Events* or *Employee Expenditures* in the Implementation Guide (IMG) for **Personnel Time Management**.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPMINIMD (Receiver for HR Mini-Master)

Method

receiveMiniMasterData

Message Type

HRCC1DNPERSO (CC1: *Download HR Mini-Master)*

Downloading Time Event Type Groupings

Use

Downloading time event type groups is required for processing both time events and employee expenditures.

You can group together time event types in time event type groupings. These groupings must be created for in order for various checks to be carried out at the time recording system. Employees can only make entries for these time event types.

Prerequisites

In the Customizing section for *Personnel Time Management* in the Implementation Guide (IMG), the time event type groupings must be defined in the *Set time event type groupings* step.

Procedure

Run report RPTCC105 (*HR-PDC: Download Time Event Type Groupings*).

Downloading the time event type groupings can also be scheduled periodically as batch jobs. Schedule report RPTCC105 from the Customizing steps in either *Personnel Time Events* or *Employee Expenditures* section in the Implementation Guide (IMG) for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTTGR

Method

receiveTimeEventTypeGrp

Message Type

HRCC1DNTEVGR

Downloading Permitted Employee Expenditures

Use

By downloading the permitted employee expenditures (external wage types), employees can record their own expenditures (cafeteria or service station data) at a recording terminal.

The data entered in the time recording terminal by the employees is checked in the time recording system.

Prerequisites

The following Customizing steps in the *Personnel Time Management* section of the Implementation Guide (IMG) must be carried out:

- *Set groupings for employee expenditures at the subsystem*
- *Maintain wage types*

Procedure

Run report RPTCC104 (*HR-PDC: Download Employee Expenditures*) by choosing *Human resources* → *Time management* → *Administration* → *Environment* → *Subsystem connection* → *Employee expenditures* → *Permitted expenditures*.

Downloading permitted employee expenditures can also be scheduled periodically as batch jobs. To do so, perform the *Set Up Background Jobs* → *Download* step in the *Personnel Time Events* section of the Implementation Guide (IMG) for *Personnel Time Management*.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEXPREC

Method

receivePExpenses

Message Type

HRCC1DNEXTWT

Upload Employee Expenditures

Use

Uploading employee expenditures enables all of the employee expenditures entered in external recording systems to be uploaded to *SAP Time Management* (PT).

The employee expenditures uploaded to the SAP System are stored in the table TEXLGA. These employee expenditures can be processed using the report **RPIEWT00** (Create Batch Input Session for Employee Expenditures). The report generates primary wage types from the employee expenditures that can be processed further in *SAP Payroll* (PY). Data records are then created with these primary wage types in the EE Remuneration Info [Page 216] (2010) or Additional Payment [Ext.] (0015) infotypes.

Procedure

Uploading employee expenditures takes place in two steps:

1. The upload request is downloaded from *SAP Time Management* to the external recording system.

   To do so, run report **RPTCC109** (*HR-PDC: Download Upload Request for Employee Expenditures*).

2. The employee expenditures entered from external recording systems are uploaded to *SAP Time Management*.

   The upload is started from each external recording system.

   Downloading the upload requests can also be scheduled periodically as batch jobs. To do so, carry out the *Set up background jobs* → *Download* step in the *Personnel Time Events* section of the Implementation Guide (IMG) for **Personnel Time Management**.

Interfaces

Export via this BAPI is asynchronous.

Interface Type

RCVPEVTREC to download the upload request

Business Object

BUS7015 Manager for Expenditures to be Calculated

Methods

- requestPExpenses (Download the Upload Request)
- PTMgrExtPExpenses.Insert (Upload)

Message Type

- HRCC1REQUPEXTWT (Download the Upload Request)
- HRCC1UPEXTWT (Upload)

Connection to External Time Management Systems

Use

This function enables time data and external wage types recorded in an external time management system to be transferred to *Time Management* (PT).

Integration

There are two options for connecting to external time management systems:

1. Providing *R/3 Time Management* with external time data

   In this case, either time durations (such as 8 hours) or time intervals (such as 7:00 a.m. to 4:00 p.m.) are recorded in external systems.

   After the transfer, the data is stored either the Attendances [Page 176] (2002) or the Absences [Page 161] (2001) infotypes.

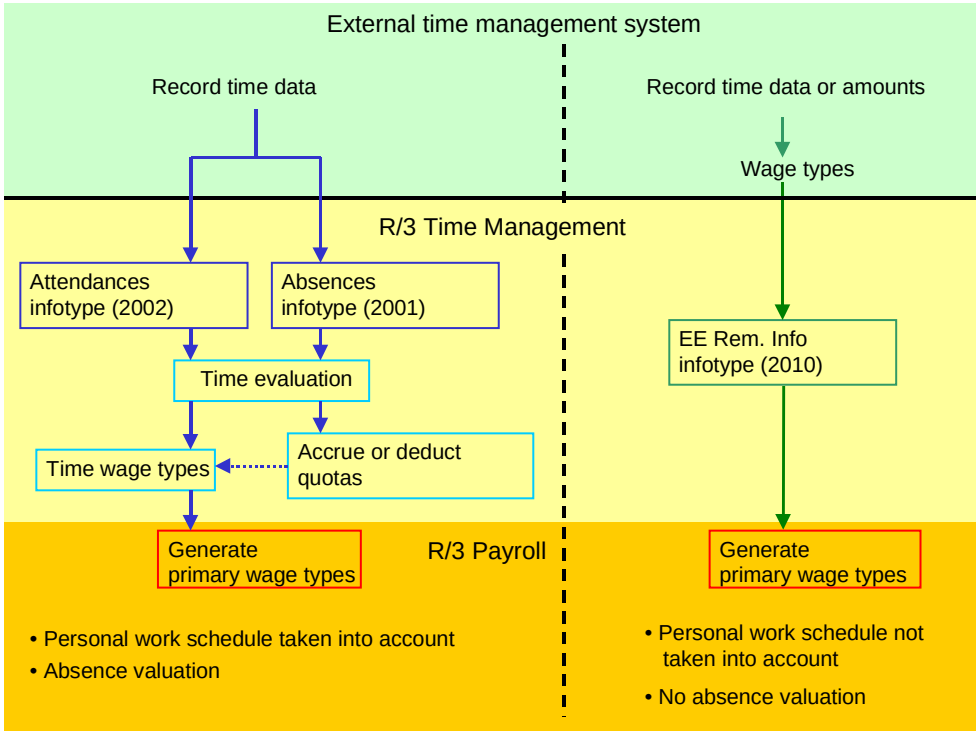
2. Providing *R/3 Time Management* with external time wage types

   After the transfer, the data is stored in the *EE Remuneration Info* infotype (2010).

   If your employees enter their attendance times themselves at time recording terminals (clock-in and clock-out entry), you can then transfer this data (entry times) to *R/3 Time Management* (PT) via the standardized interface **Communication Channel 1** (CC1).

   For more information, see Connecting from External Time Management Systems [Page 711].



By transferring time data, you benefit from the full range of functions provided by the *R/3 Time Management* component. For example, you can process quota accrual and quota deduction. Then, in *Payroll*, the employee's personal work schedule is taken into consideration, ensuring that the appropriate time management data is accessed in order for employee absences to be correctly valuated.

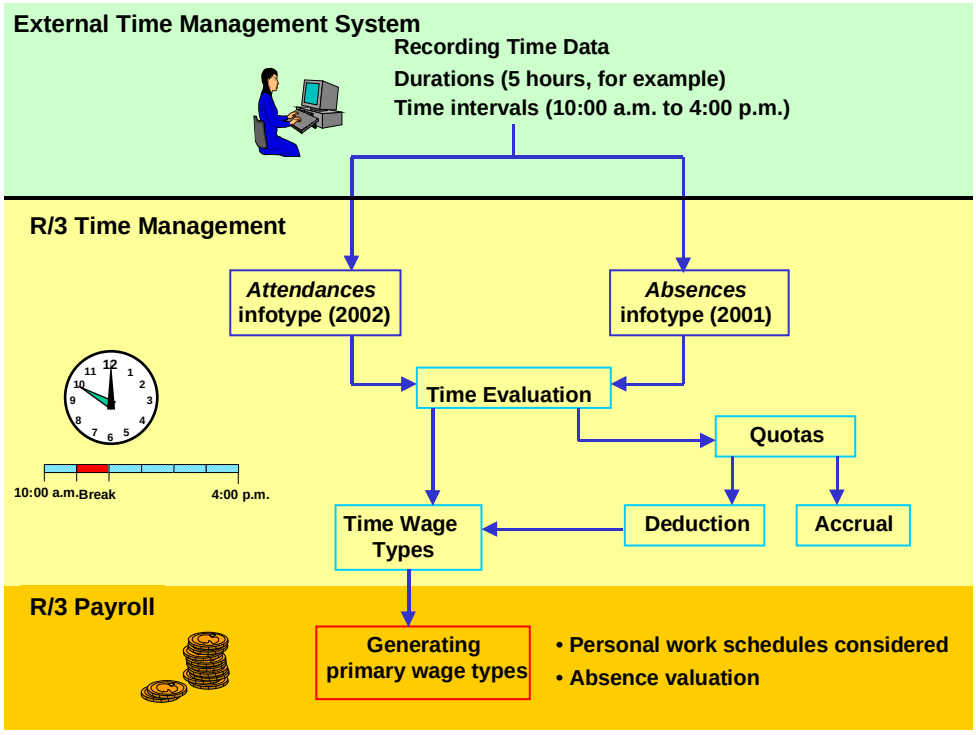
In addition to these two variants, the *Substitutions* infotype (2003) in *R/3 Time Management* can also be supplied with external operative planned working time For more information, see Supplying R/3 Time Management with Operative Planned Working Time [Page 756].

Providing *SAP Time Management* with External Time Data

Use

This function enables time data that is recorded in an external time management system to be transferred to *SAP Time Management* (PT).

Integration



Time data is recorded as time intervals or durations in external time management systems. This time data is then transferred to *SAP Time Management* (PT)

Absences are stored in the *Absences* infotype (2001) and attendances in the *Attendances* infotype (2002) in *SAP Time Management*.

Time wage types are created during time evaluation. Employees' personal work schedules are taken into consideration. Quotas can also be taken into account in time evaluation.

Time wage types are imported by *SAP Payroll*. Primary wage types are then generated in *SAP Payroll* and used for running payroll for employees.

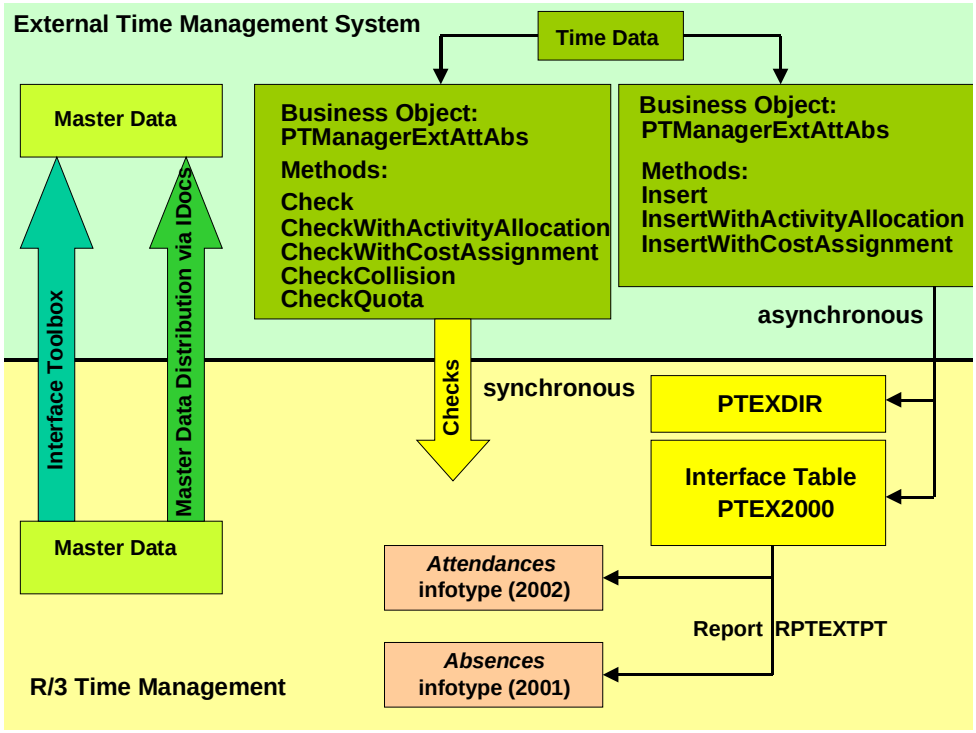
This version of transferring data from an external time management system takes full advantage of the complete functionality provided by *SAP Time Management*.

Process Flow for Providing *R/3 Time Management* with External Time Data

Purpose

Communication between external time management systems and the *R/3 Time Management* component during the transfer of external time data is described in more detail in this section.

Process Flow



The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer by the Interface-Toolbox [Ext.]

   A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer by Master Data Distribution via IDocs [Ext.]

   In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

Checks can be performed during time recording. Checks are carried out synchronously in *R/3 Time Management*.

The transfer of time data to *R/3 Time Management* occurs asynchronously. Data for each IDoc are stored in the interface tables PTEXDIR and PTEX2000.

The report RPTEXTPT (*External Transfer → Time Management*) reads data from the interface table PTEX2000 and saves it in the *Absences* (2001) and *Attendances* (2002) infotypes.

Checking Time Data

Use

Plausibility checks in the *Absences* (2001) and *Attendances* (2002) infotypes can be performed before external time data is transferred.

Features

Entries dealing with payscale groups and levels in the HR system are checked to verify if they are permitted for the applicable employees. During the check for activity allocation, the activity types entered are verified. During the check for cost assignment, the quota objects entered are verified.

Collision checks can also be performed. During collision checks, data records that are to be transferred from the external system to the HR system are checked against data recorded in infotypes 2001 and 2002 in the HR System, in order to prevent data from overlapping.

By simulating quota deduction, you can check whether enough remaining quota (available balance) exists.

Interfaces

Export via this BAPI is synchronous.

Business Object

PTManagerExtAttAbs

Method

Check (Attendance/Absence without Account Assignment)

CheckWithActivityAllocation (Attendance/Absence with Activity Allocation)

CheckWithCostAssignment (Attendance/Absence with Cost Assignment)

CheckCollision (Collision Check)

CheckQuota (Check Quota Deduction)

Checking Data into the Human Resources (HR) System

Use

Time data from external systems is stored in the interface tables PTEXDIR and PTEX2000 in *SAP Time Management*.

Report RPTEXTPT *(External Transfer → Time Management*) enables data to be read from the PTEX2000 file and then stored as absences or attendances in the *Absences* (2001) or *Attendances* (2002) infotypes.

The report RPTEXTPT (*External Transfer →Time Management*) can also be scheduled periodically as a batch job.

Interfaces

Export via this BAPI is asynchronous.

Business Object

PTManagerExtAttAbs

Methods

Insert (Absence/Attendance without Account Assignment)

InsertWithActivityAllocation (Absence/Attendance with Activity Allocation)

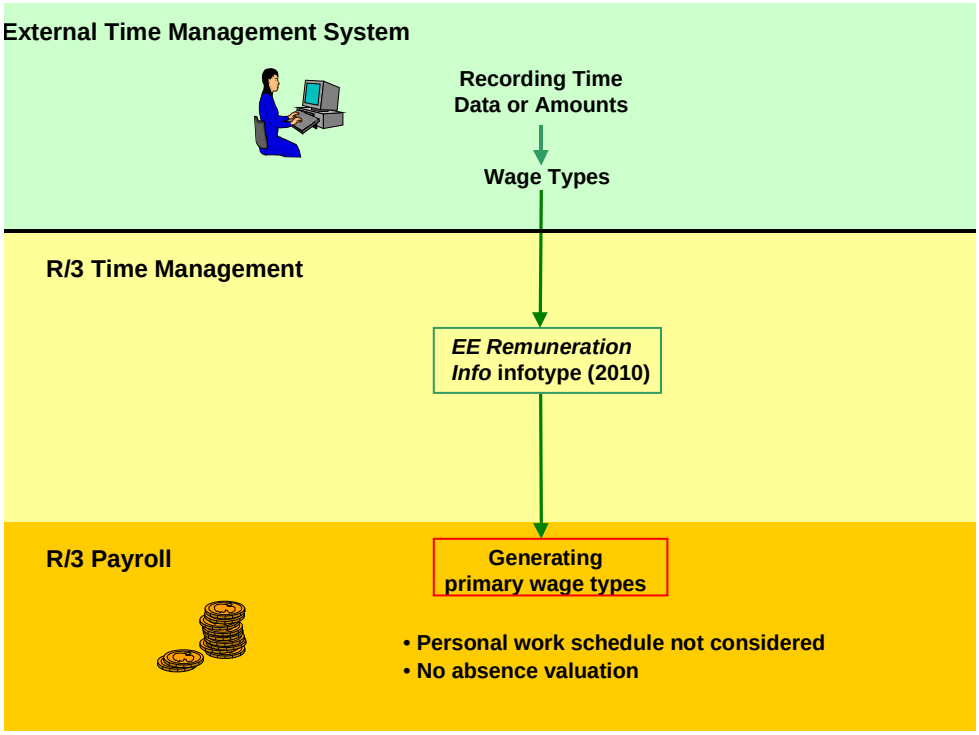
InsertWithCostAssignment (Absence/Attendance with Cost Assignment)

Providing *SAP Time Management* with External Time Wage Types

Use

This function enables time wage types generated in an external time management system to be transferred to *SAP Time Management* (PT).

Integration



Time data is recorded in external time management systems. The corresponding wage types are already entered in the external system.

Time data is transferred with wage types to *SAP Time Management* and stored there as data records in the *EE Remuneration Info* infotype (2010).

Wage types are imported by *SAP Payroll*. Primary wage types are then generated in *SAP Payroll* and are used for running payroll for employees.

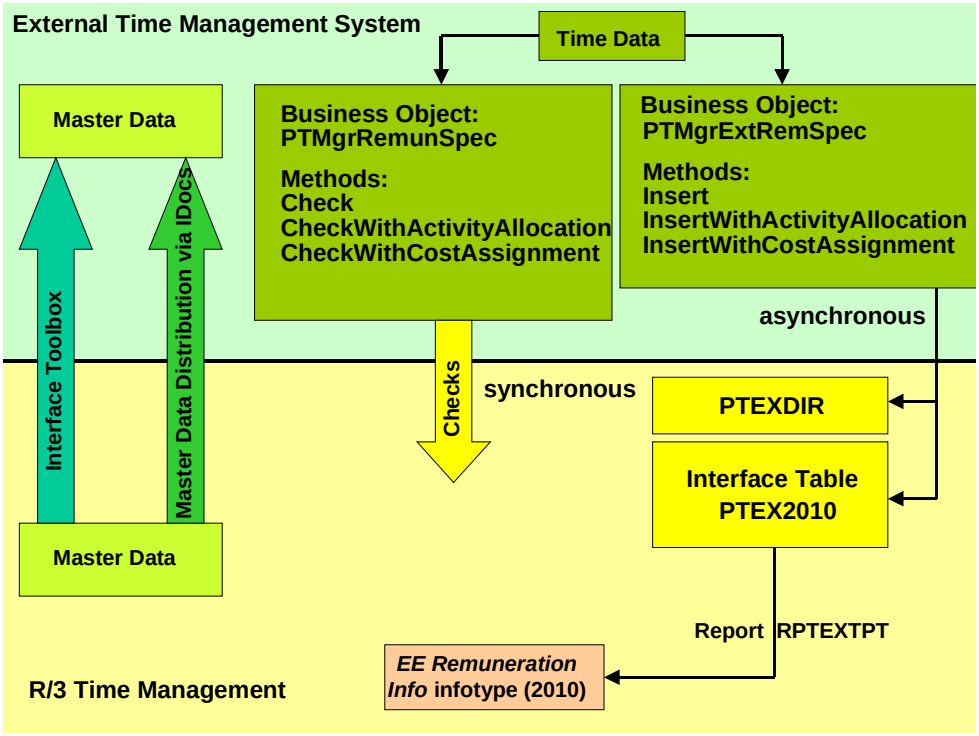
One disadvantage of this version of transferring data from an external time management system is that it does not take full advantage of the complete functionality provided by *SAP Time Management*. For example, employees' personal work schedules are not taken into consideration. In addition, quota processing can not take place.

Process Flow for Providing *R/3 Time Management* with External Time Wage Types

Purpose

Communication between external time management systems and the *R/3 Time Management* component during the transfer of external time wage types is described in more detail in this section.

Process Flow



The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer by the Interface-Toolbox [Ext.]

   A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer by Master Data Distribution via IDocs [Ext.]

   In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

Checks can be performed during time recording. Checks are carried out synchronously in *R/3 Time Management*.

The transfer of time data to *R/3 Time Management* occurs asynchronously. Data for each IDoc is stored in the interface tables PTEXDIR and PTEX2010.

The report RPTEXTPT (*External Transfer → Time Management*) reads data from the interface table PTEX2010 and saves it in the *EE Remuneration Info* infotype (2010).

Checking External Wage Types

Use

Plausibility tests for the *EE Remuneration Info* infotype (2010) can be performed prior to the transfer of external time data.

Integration

Entries for wage types in the HR System are checked to verify if they are permitted for the applicable employees. During the check for activity allocation, the activity types entered are verified. During the check for cost assignment, the quota objects entered are verified.

Interfaces

Export via this BAPI is asynchronous.

Business Object

PTMgrExtRemunSpec

Methods

Check (External Remuneration Info (without Account Assignment))

CheckWithActivityAllocation (External Remuneration Info (with Activity Allocation))

CheckWithCostAssignment (External Remuneration Info (with Cost Assignment))

Transferring External Wage Types to the HR System

Use

Time data from external systems is stored in the interface tables PTEXDIR and PTEX2010 in *SAP Time Management*.

Report RPTEXTPT *(External Transfer → Time Management*) enables data to be read in the PTEX2010 file and then stored as data records in the *EE Remuneration Info* infotype (2010)

The report RPTEXTPT (*External Transfer → Time Management*) can also be scheduled periodically as a batch job.

Interfaces

Export via this BAPI is asynchronous.

Business Object

PTMgrExtRemunSpec

Methods

Insert (External Remuneration Info in Table (without Account Assignment))

InsertWithActivityAllocation (External Remuneration Info in Table (with Activity Allocation))

InsertWithCostAssignment (External Remuneration Info in Table (with Cost Assignment))

Supplying R/3 Time Management with Operative Planned Working Time

Use

You can use this function to transfer operative planned working time that was recorded in an external time management system to *R/3 Time Management*.

Prerequisites

The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer using the Interface-Toolbox [Ext.]

   A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer using Master Data Distribution via IDocs [Ext.]

   In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

Features

The transfer of operative planned working time to *R/3 Time Management* is asynchronous. The data is stored per IDoc in the interface tables PTEXDIR, PTEX2003GEN, and PTEX2003SPEC.

The report RPTEXTPT (*Transfer External Data* → *Human Resources*) reads data from the interface tables PTEX2003GEN and PTEX2003SPEC and stores it in the *Substitutions* infotype (2003). The system generates records for the *Substitutions* infotype (2003).

Transfer of Operative Planned Working Time to the HR System

Use

The operative planned working time from the external system is stored in the interface tables PTEX2003GEN, PTEX2003SPEC, and PTEXDIR in *R/3 Time Management*.

The report RPTEXTPT *(Transfer External Data → Human Resources*) then reads the data from the interface tables PTEX2003GEN and PTEX2003SPEC and stores it as substitutions in the *Substitutions* infotype (2003).

We recommend that you schedule the report RPTEXTPT to run periodically as a background job.

Interfaces

Export via this BAPI is asynchronous.

Business Object

PTMgrExtWorkSched

Method

InsertWithCostAssignment

Information System (PT)

Purpose

The Time Management information system provides a variety of standard reports that concern the evaluation and display of time and planning data. The information system component also supplies you with information on *SAP Query evaluations*, the *Time Management InfoSets* (the term *InfoSet* replaces the term *functional area)*, and *simulated infotypes*.

Time Management Reports

Use

The *Time Management* component provides a number of standard reports, which you can use to read, process, and evaluate time management data.

Features

The *Time Management* information system contains the following types of reports:

- Reports on the work schedule
  - Personal Work Schedule (Report RPTPSH10) [Page 761]
  - Daily Work Schedule [Page 763]
- Reports on attendances
  - Attendance/Absence Data: Overview [Page 784]
  - Attendance/Absence Data: Calendar View [Page 788]
  - Attendance/Absence Data: Multiple-Employee View [Page 792]
  - Attendance Check [Page 778]
  - Attendances/Absences Overview Graphic [Page 795]
- Reports on absences
  - Attendance/Absence Data: Overview [Page 784]
  - Attendance/Absence Data: Calendar View [Page 788]
  - Attendance/Absence Data: Multiple-Employee View [Page 792]
  - Attendances/Absences Overview Graphic [Page 795]
- Reports on time accounts
  - Time Leveling [Page 798]
  - Time Statement [Page 801]
  - Cumulated Time Results - Time Balances and Time Wage Types [Page 803]
  - Time Accounts [Page 805]
  - Displaying Absence Quota Information (Report RPTQTA10) [Page 806]
  - Displaying Time Evaluation Messages [Page 809]

Activities

To run the standard reports, choose the following menu path from the *SAP Easy Access* screen:

SAP Standard Menu → Human Resources → Time Management → Information System → Report Selection → Work Schedule / Attendance / Absence / Time Accounts.

Work Schedule

Definition

The *work schedule reports* provide information on the planned specifications that stipulate employees' working time and on the various working time models that are defined using the work schedule.

Use

You can use the reports for displaying and evaluating work schedules to

- Create an overview for multiple employees for each day in any given period, which includes all essential planned specifications concerning the working time of an employee
- Create an overview of daily work schedules that meet certain criteria

Personal Work Schedules (Report RPTPSH10)

Use

This report creates an overview for multiple employees for each day in any given period, which includes all essential planned specifications concerning the working time of an employee It can be accessed from the following Time Management functions, for example:

- From the *Time management* menu (multiple employees)
- From the *Time Management pool – Monthly calendar* (individual employees)
- Maintenance of time infotype records (individual employees)

You can use the report when maintaining substitutions for example, so that the working times and working time rules for employees as well as any existing infotype records can be provided for a specific date.

Features

Selection

You can restrict the data selection period even further from the selection screen. For example, you can display the planned specifications for working time only for the days on which the employee was active or receiving pension (*employment status* 3 or 2).

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control.
- You can display a list to see whether time infotype records are entered for the employee on a particular day, and if so, how many. *Attendances* (2001), *Absences* (2002), *Substitutions* (2003), *Availability* (2004), and *Overtime* (2005) are taken into consideration. You can see detail information on employee time infotype records.
- You can also see detail information on the daily work schedule or planned working time (infotype 0007) of an employee.
- You can display a list of all errors (such as those occurring in Customizing). This list contains the type of error message (such as a yellow symbol for “W” = warning), the personnel number for which the error occurred and a text description.

Activities

Restrict Data Selection Period
By choosing *Display periods* you can restrict the day’s output for planned specifications as follows:

- *On pension and active*
  The planned specifications on working time only occur for the days on which the employee was active or on pension. (*employment status* 2 or 3).
- *Inactive, on pension and active*
  The planned specifications on working time only occur for the days on which the employee was inactive, active or on pension. (*employment status* 1, 2, or 3).

Personal Work Schedules (Report RPTPSH10)

- *Left the company, on pension and active*
  The planned specifications on working time only occur for the days on which the employee left the company, was active, or on pension. (*employment status* 0, 1, 2 or 3).

Obtain Detail Information

From the list, you can jump to the following detail information:

- *Information on daily work schedule*

  a. Select a line to view detail information on the daily work schedule, and select *DWS* (*daily work schedule*).
  The *Display Daily Work Schedule: Overview* appears.

  In this screen, the following options are available:

  – Select the daily work schedule to view detail information and then choose *Details*.
  The detail screen for the daily work schedule appears.

  – Choose *Work break schedules*.
  The *Display Work Break Schedule: Overview* appears. *Overview* screen.

  – Choose *Daily work schedule selection rules*.
  The *Rules for Determining Variants for Period Work Schedules* screen appears.

  b. To return to the list, choose *Back*.

- *Information on planned working time*

  a. Select the lines in the list to view detail information on the planned working time, and then choose *Planned working time.*
  The detail screen for the *Planned Working Time* infotype (0007) appears for the first line you selected.

  b. To see the detail screen for the *Planned Working Time* infotype (00007) for the next line you selected, choose *Back*.

  c. To return to the list, choose *Back*.

- *Information on time infotypes*

  a. Select the lines in the list to view detail information on the time infotypes, and then select *Time infotypes.*
  An overview list displaying all of the infotype records and their respective employees that were recorded for the selected days appears.

  b. Select the infotype record to view detail information and then choose *Details*.
  The detail screen for the infotype record appears.

  c. To return to the list, choose *Back*.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.].

Daily Work Schedules (Report RPTDSH20)

Use

This report creates an overview of daily work schedules possessing certain criteria. You can use this list to check the daily work schedules created in *Customizing*. Using the selection criteria, you can display all of the daily work schedules with less than eight planned hours, for example.

Features

Selection

You can predefine the *Grouping of personnel subareas for daily work schedules* (*PS grouping* field) or by the *daily work schedule short description (Daily work schedule* field). Using additional selection criteria, such as planned working time or break schedules, you can further restrict the selection of daily work schedules.

Output

- In the list screen, the description of the daily work schedule is displayed as well as its name. In addition, all of the existing variants of a daily work schedule are also displayed. By selecting a line, you can jump to the detail screen for the daily work schedule, to see more information regarding the planned working time and assigned break schedule, for example.
- You can print out the list of selected daily work schedules. All entries are listed for the daily work schedule in the printed version. You can also modify the contents of the list to suit your requirements.
- You can send the list as e-mail or download it to Microsoft Excel or Word to process further offline.

Activities

Restrict Selection of Daily Work Schedules

After you predefine the *Grouping for personnel subareas for daily work schedules* (*PS grouping* field) or the *daily work schedule short description (Daily work schedule* field), the *Daily Work Schedule: Overview* screen appears. *Overview* screen.
Here you can further restrict the selection of daily work schedules:

1. Choose *Selection* → *By contents...*
   A dialog box appears listing additional selection criteria.
2. Select your selection criteria, and choose *Continue*.
   Another dialog box appears in which you can further define the criteria you just selected.
   - In the *Co* field, enter a relational operator, such as **<**, **>,** or **=**. You can display a list of all possible operators using possible entries help (F4).
   - In the *Field contents* field, enter an appropriate value. For the selection criterion *Planned working hours*, for example, you must enter a number of hours.
   - If you have several selection criteria, enter the relationship type **AND** or **OR** in the *Relationships* field.

     The dialog box also offers the following functions:

Daily Work Schedules (Report RPTDSH20)

- *Confirm*
  This function confirms the entries you have made up until this point.
- *Append*
  Use this function to add selection criteria to the existing list. The criterion you select is appended to the existing entries with **AND**.
- *Insert*
  Use this function to insert selection criteria at any point in the list of existing entries. The selected criterion is inserted after the entry on which your cursor is located. Now enter the relationship type **AND** or **OR**.
- *Delete*
  This function deletes the selection criteria you have chosen up until this point.

3. Choose *Choose*.
   The system then displays a list of the daily work schedules that match your selection criteria.

Display Detail Information on Daily Work Schedules

1. Select the relevant line in the list, and then choose *Goto* → *Details* or simply double-click on the line itself.
   You then get detailed information on the selected daily work schedule, for example, information on working times.
2. To return to the list, choose *Back*.

Print Daily Work Schedules List

1. Choose *Table View* → *Print*.
   An extended list of the selected daily work schedules is displayed containing all of the entries in the daily work schedule. You can modify the list to suit your requirements.
2. To print out the list, choose *List* → *Print*.

Send E-mail

1. Choose *Table View* → *Print*.
2. Choose *Lists* → *Send*…
3. Enter a user name as the receiver.
4. Choose *Document* → *Send*…

Example

You want to see all part-time daily work schedules containing less than 5 planned hours that also belong to the personnel subarea grouping for daily work schedules 01.

Procedure

1. Access the selection screen for report RPTDSH20.
2. Enter the value *01* in the *PS grouping* field in the selection screen.
3. Choose *Execute.*
4. Choose *Selection* → *By contents...* and then select the *Planned working hours* field.
5. Choose *Continue*.

6. In the following dialog box, enter the symbol **<** in the *Co* field, and a **5** in the *Field contents* field.
7. Choose *Choose*.

Attendance

Definition

The reports for attendances provide you with overviews of times when employees have worked or performed special activities. You can also use the reports to monitor employees' attendance.

Use

You can use the reports for displaying and evaluating attendances to

- Summarize or expand employees' attendance and absence data based on various criteria
- Display absences and attendances for each employee in a calendar view
- Display absences and attendances for each employee in a multiple-employee view
- Display employees' absences and attendances in graphical form
- Create a list of employees who are, at a specific time, at work, absent with reason, absent without prior notification, or late

Attendance/Absence Data: Overview (Report RPTABS20)

Use

This report allows you to summarize and classify your employees' attendances and absences from various points of view. The data is displayed in a list. You can display leave data for employees for a particular personnel area sorted according to personnel subarea and employee.

Integration

You can jump from the *Attendance/Absences Data: Overview* to the *Attendances/Absences: Calendar View* report (RPTABS50).

Prerequisites

You can also use the report to evaluate data according to attendance or absence category (that is, the abbreviation for the attendance or absence). To do this, you must first set up the abbreviations in Customizing for attendance and absence types.

Features

Selection

- This report creates different lists showing employees' attendances and absences. You can make specifications in the selection screen that determine the layout of the lists, such as which columns appear and in what order, and how the data is classified.
- For example, you can carry out time evaluation based only on attendances, on absences, or only on individual attendance and absence types.
- You can also enter a payroll period instead of a time period.
- You can also select employees without attendances and absences.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control.
- You can alternate between different views in the output list. You can display all available data, or different detail views.
- You can go directly from the output list to the *Attendances/Absences: Calendar View* report (RPTABS50) for an employee.
- From the output list, you can go directly to the infotype for the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence type* field blank on the selection screen.

Attendance/Absence Data: Overview (Report RPTABS20)

  - To restrict the absence types, enter the corresponding absence types in the *Absence type* field.

- To evaluate attendances only:
  - To evaluate all attendances, leave the *Attendance type* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance type* field.
- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance type* and *Absence type* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance type* and *Absence type* fields in the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Group By Organizational Assignment

By choosing *Data format* → *Grouping by organizational assignment*, you determine which organizational data should be inserted as a column in the list. The default settings are *Personnel area* and *Personnel subarea*. You can select additional data in a dialog box. The order in which you choose additional data determines the order in which the columns appear in the list.

Select Data to Display

By choosing *List format* → *Data to be displayed*, you determine what additional data is to be inserted as a column in the list. Default settings are as follows:

- *Attendance/absence hours*
- *Planned Hours*
- *Attendance/absence hours by planned time (percentage)*
- *Attendance/absence days*
- *Planned days*
- *Attendance/absence days by planned days (percentage)*
- *Number of attendance/absence records*

You can select additional data in a dialog box. The order in which you choose additional data determines the order in which the columns appear in the list.

Select Classification of Data in Initial List

If you choose *Classifying data in the initial list* in the selection screen, you can choose the first view of the dataset. In the output list, you can go online to the other display options (see below).

Alternate Views in the Attendance/Absence Data: Overview

- Choose *Change view* to alternate between the view of one employee's data to the attendance/absence data view.
- Choose *Expand all* to display all available data.
- Choose *Show* <-> *Hide* to show or hide data in a row.
- Choose *Layout* to choose between two different types of layout.
- Choose *Details* to select different detail views. Select a line and choose *Detail.* You can also display the following detail views:
  - By selecting a line containing summarized data for each attendance or absence, and then choosing *Details*, the *Display Attendance/Absence Data: Detail* view appears.
  - By selecting a line containing summarized data for each employee and then choosing *Details*, the *Display Attendance/Absence Data: Calendar View* appears (Report RPTABS50).
  - By selecting a line containing an employee's attendance/absence data for a particular absence type and then choosing *Details*, the infotype records for the data selection period appear. Here you can jump to the individual records or display an employee's personal work schedule.
- You can switch to a print preview by choosing *List* → *Print preview*.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Examples

1. You want to create a list of the most frequent absence types in your enterprise for the year 1997, according to *Personnel area* and *Personnel subarea,* and then document the ratio to planned working time.

   Procedure

   a. Access the selection screen for report RPTABS20.

   b. Choose *Other period* and then enter 01/01/1997 to 12/31/1997.

   c. Choose the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.

   d. Choose *Organizational assignment - Attendance/absence types* in *the Classify data in the initial list* section.

   e. Choose *Execute*. (You can also run the report in the background depending on the number of employees.)

2. You want to measure the success of a new company medical policy introduced for a certain cost center in June, 1997. To do so, select the employees who belonged to this cost center in June 1997, and compare absence hours to planned time for the periods directly before and after the policy was introduced.

   Procedure

   a. Access the selection screen for report RPTABS20.

b. Enter the *Selection period* as 06/01/1997 to 06/30/1997.

c. Insert the *Cost center* field by selecting it in the *Additional selections* section of the selection screen, and enter the cost center for which you want to display the employees.

d. Choose the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.

e. Enter all of the absence types that denote illness in the *Absence types* field.

f. Choose *Cost center* under *Grouping by organizational unit*.

g. Under *Data to be displayed*, choose *Attendance/absence hours according to planned time (percentage)*.

h. Choose *Organizational assignment - Attendance/absence types* in *the Classify data in the initial list* section.

i. Choose *Execute.*

– One time for selection period **01/01/1997 to 06/30/1997** (before company medical policy)

– Second time for selection period **07/01/1997 to 12/31/1997** (after company medical policy)

If other cost centers appear in your list in addition to the cost center you entered, employees presently in the cost center you entered have apparently changed cost centers within the data selection periods. If necessary, you can create the lists again, specifically excluding those employees who changed cost centers from the selection.

Attendance/Absence Data: Calendar View (Report RPTABS50)

Use

This report displays attendances and absence for each employee in a calendar. For example, you can view an employee's leave and business trips for a specific period. In addition, you can produce statistics as well as a legend for both the calendar and the statistics.

Integration

You can branch from the *Attendance/Absences Data: Calendar View* to the *Attendances/Absences: Multiple-Employee View* report (RPTABS60).

Prerequisites

- Attendances/absences are indicated in the output list by their abbreviation (attendance/absence category). These abbreviations must first be set up when you customize attendance and absence types.
- You can also choose alternative periods for the calendar view. These periods, such as a two-weekly period, must be defined in the *Define time evaluation* Customizing step in the Implementation Guide (IMG) for Time Evaluation. Permitted periods include those that do not overlap, those that cover the person selection period without any gaps, and those that do not exceed 40 characters in length.

Features

Selection

- You can run the report to evaluate only attendances, only absences, or individual attendance or absence types, for example. You can also enter a payroll period instead of a time period.
- The calendar can be set up for various display periods, such as monthly or weekly. The period can only be specified using the selection screen.
- You can determine which organizational data is to be displayed in the header of the list and whether the technical keys or text is also to be displayed.
- In addition, you can also display statistics as well as a legend for both the calendar and the statistics.

Output

- The selected attendance/absence types are displayed in the list with their abbreviation. In addition to the abbreviations defined in Customizing, the system may add the symbols "*", "?" "<", ">", or "/".
- From the calendar display, you can generate a multiple-employee view (report RPTABS60) to see which employees have leave in a specified month.
- From the calendar, you can jump to the infotype that belongs to the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence types* field blank in the selection screen.
  - To restrict the absence types, enter the corresponding absence types in the *Absence types* field.
- To evaluate attendances only:
  - To evaluate all attendances, leave the *Attendance types* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance types* field.
- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Determine Display Period

Here you determine the selection period for which you want the calendar to be displayed. The period can only be specified using the selection screen. You can choose from the following display periods:

- Monthly period
- Weekly period
- Alternative period

You can only specify those *Alternative periods* defined in Customizing (see **Prerequisites** section).

Display Organizational Assignment

You can specify which organizational data you want to be displayed in the header by selecting *List format -> Display organizational assignment*. The default settings are *Personnel area* and *Personnel subarea*. You can select additional data in a dialog box. This data is then output in the header in the sequence of your selection.

Display Texts for Organizational Assignment

Here you can decide whether you want the organizational data to be displayed in the header with their texts or just their technical keys.

Generate Statistics

Here you decide whether you want to generate statistics for each employee.
If you select a monthly or weekly period, statistics are printed for the month. If you choose an alternative period, the statistics are generated for that period.
Statistics cumulate the hours per month for a particular attendance or absence category, for example, as well as the percentage ratio of these hours to the employee's planned hours.
Attendance or absence records assigned to the previous day count for the period in which the previous day falls.

Display Legend

Here you choose whether you want to display a legend for all attendance or absence categories selected for an employee (abbreviation and attendance/absence category). This information is then displayed/printed on each page.

Interpret Calendar Display

Attendances/absences are displayed in the list by their attendance or absence category (abbreviation). In addition to the abbreviations defined in Customizing, the following symbols may also appear:

- An asterisk (*) indicates that there are several attendances or absences on that day.
- A question mark (?) indicates that no abbreviation exists in Customizing for the corresponding attendance/absence type.
- A "less than" symbol (<) indicates that one of the attendances/absences of the following day is assigned to this day (previous day assignment).
- A slash (/) indicates that the employee is not active on this day.

Obtain detailed information on attendances/absences

1. Double-click on the abbreviation for the attendance/absence in the calendar to display more detailed information.
   The relevant infotype record appears.
2. To return to the calendar, exit the infotype record.

If attendances and absences occur on one day (indicated by an asterisk), you can choose in a dialog the infotype record to which you want to branch.

Generate Multiple-Employee View

If you have chosen a *monthly* or *alternative* period in the report selection screen, you can generate a multiple-employee view from the calendar display as follows:

1. Select a period (a month, for example) in an employee's calendar.
2. Choose *Multiple employee view* (report RPTABS60).
   A list appears with all selected employees and attendances/absences for the period entered. You can also jump from this list to the abbreviation for attendance/absence in the corresponding infotype record.
3. To return to the calendar, choose *Back*.

Example

You want to see an overview of an employee's leave for the current year.

Procedure

1. Choose *Current year* as the period.
2. Enter the personnel number of the employee in the *Personnel no.* field.
3. Select the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
4. Enter all of the absence types that reflect leave in the *Absence types* field.
5. Choose *Execute.*

Example

You want to display a list of employees from a specific organizational unit who are teaching a training course in the current year.

Procedure

1. Access the selection screen for report RPTABS50.
2. Choose *Current year* as the period.
3. Insert the *Organizational unit* field by selecting it in the *Additional selections* section of the screen, and enter the organizational unit for the employees you want to display.
4. Select the *Only evaluate attendances* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
5. Enter the attendance type *Instructor* in the *Attendance type* field.
6. Choose *Execute.*

Attendance/Absence Data: Multiple Employee View (Report RPTABS60)

Use

You can use this report to display the attendances and absences for each employee in a view for multiple employees. For example, you can display the employees who have leave in a particular month.

Integration

You can also access this report from report RPTABS50 (Attendance/Absence Data: Calendar View). If you call report RPTABS60 (Attendance/Absence Data: Multiple Employee View) directly, it evaluates one month. If, however, you access it from report RPTABS50, you can also evaluate alternative periods (for example, a period of 14 days).

Prerequisites

Attendances/absences are indicated in the output list by their abbreviation (attendance/absence category). These abbreviations must first be set up when you customize attendance and absence types.

Features

The selection period is defined as one month; the report evaluates the month in which the key date lies.

Selection

You can run the report to evaluate only attendances, only absences, or individual attendance or absence types, for example.

Output

- The selected attendance/absence types are displayed in the list with their abbreviation. In addition to the abbreviations defined in Customizing, the system may add the symbols “*”, “?” “<”, “>”, or “/”.
- From the multiple-employee view, you can branch to the infotype for the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence types* field blank in the selection screen.
  - To restrict the absence types, enter the corresponding absence types in the *Absence types* field.
- To evaluate attendances only:

  - To evaluate all attendances, leave the *Attendance types* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance types* field.

- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Interpret multiple-employee view

Attendances/absences are displayed in the multiple-employee view by their attendance or absence category (abbreviation). In addition to the abbreviations defined in Customizing, the following symbols may appear:

- An asterisk (*) indicates that there are several attendances or absences on that day.
- A question mark (?) indicates that no abbreviation exists in Customizing for the corresponding attendance/absence type.
- A “less than” symbol (<) indicates that one of the attendances/absences of the following day is assigned to this day (previous day assignment).
- A slash (/) indicates that the employee is not active on this day.

Obtain detailed information on attendances/absences

1. Double-click on the abbreviation for the attendance/absence in the multiple-employee view to display more detailed information.
   The relevant infotype record appears.
2. To return to the multiple-employee view, exit the infotype record.

If attendances and absences occur on one day (indicated by an asterisk), you can choose in a dialog the infotype record to which you want to branch.

Example

You want an overview of the employees in a particular personnel area who have leave in the current month.

Procedure

1. Access the selection screen for report RPTABS60.
2. Choose *Today* as the key date.

3. In the *Selection* section of the screen, enter the relevant personnel area in the *Personnel area* field.
4. Select the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
5. In the *Absence types* field, enter all absence types that concern leave.
6. Choose *Execute.*

Attendance Check (Report RPTEAB00)

Use

This report creates a list of employees who are at work, absent with reason, absent without prior notification, or late at a specific time. Using this list, you can determine which employees are absent at the time of evaluation who need other employees to fill in for them as substitutes. You can also display employees who should be at work according to their personal work schedule, but who are neither at work nor are absent with reason.

Prerequisites

- This report takes into account time events recorded by a time recording system as well as those recorded in the *Attendances* (2002) and *Absences* (2001) infotypes.
- If you use time recording terminals, then you must first upload the time events to the SAP System before starting evaluation. Only the time event types “clock-in or clock-out,” “Start or end of off-site work,” “Start or end of off-site work at home,” or “Start or end of break” require pair formation to be carried out in time evaluation. These time events can only be interpreted in pairs with other time events.

Features

Selection

- You can select employees according to their attendance status to display all employees who were late on a certain day, for example.
  Attendance status is determined as follows:

  a. The last posting prior to the point of evaluation determines whether an employee is *at work*, working *off-site* or on a *break*. If the *Evaluate by work schedule* field is activated, then the system determines whether an employee was *late*, was *late according to normal working time* (this status is assigned without core time in a flextime schedule), or if a *core time violation* occurred in addition to checking the last posting.

  b. If the last posting determines that an employee is not at work, working off-site, or on a break from the last posting, then the system checks if an *absence* (infotype 2001), or a manually entered *attendance* (infotype 2002) exists for this employee. Then, the attendance status is determined as partial-day attendance, partial-day absence, full-day attendance, or full-day absence.

  c. If no entered attendances or absences exist, and you still want to evaluate the daily work schedule, then the system checks if the employee should be at work according to his or her daily work schedule. The attendance status *absent* or *absent according to normal working time* (this status is assigned without core time in a flextime schedule) is determined if required.

- In addition to entering the time for the evaluation, you should enter the maximum number of hours required between this time and the last posting. Only these postings are taken into account for the determination of the attendance status.
- If you evaluate according to the work schedule, you find the employees who should be at work at the time of evaluation according to their personal work schedules, but are neither at work, nor have given any reason for their absence.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control.
- In the output list, the time event type and time of the last posting or the attendance/absence type is displayed according to the attendance status.
- In the case of employees with *Time Management status* 0 (no time evaluation), 7 (time evaluation without payroll integration), or 9 (time evaluation of planned times) the system checks whether an attendance or absence has been recorded for the employee in the evaluation period. If there is no attendance or absence and if the *Evaluate work schedule* field is activated, the system checks whether the employee's work schedule stipulates that he or she should be at work. If so, the system assigns the attendance status *at work.* The system only processes employees with *Time Management status* 8 (external services) if there is a recorded attendance or absence for them. The system does not check the daily work schedule for these employees.

Activities

Evaluate According to Work Schedule

If you activate the *Evaluate work schedule* field on the report selection screen, you also obtain a list of employees who should be at work at the time of evaluation according to their personal work schedules, but are neither at work, nor have given any reason for their absence. The planned working time and the core times (for flextime schedules) are also displayed in the list.
In the case of employees with *Time Management status* 0 (no time evaluation), 7 (time evaluation without payroll integration), or 9 (time evaluation of planned times) the system assumes that they are at work according to the daily work schedule. The system only processes employees with *Time Management status* 8 (external services) if there is a recorded attendance or absence for them in the evaluation period.
For daily work schedules that include midnight (12:00 a.m.), full-day absences are only recognized correctly if the *Evaluate by work schedule* field is activated.
If you only want to see a report of the employees at work, then leave the *Evaluate by work schedule* field blank, because determining the daily work schedule will take a longer time to calculate.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Example

You want to display which employees in your supervisory area are absent so that, if necessary, you can reassign employees to certain machines or request employees from other departments.

Procedure

1. Access the selection screen for report RPTEAB00.
2. Insert the *Supervisory area* field by selecting it in the *Additional selections* section of the screen, and enter the supervisory area for which you want to display employees.
3. Activate the *Evaluate by work schedule* in the *Evaluation time* section.

Attendance Check (Report RPTEAB00)

4. Choose *Execute.*
5. Using this list, you can determine which employees had full-day absences (were ill or on vacation, for example), which employees had full-day attendances (attending a training course), or which employees were absent without prior notification.

Attendances/Absences Overview Graphic (Report RPTLEA40)

Use

This report creates a planning table that represents recorded employee attendances and absences. The graphical interface helps in the leave scheduling process or when checking personnel capacities for a group of employees. The evaluation is carried out for each individual employee. You can also evaluate locked records.

Features

Selection

You can evaluate individual attendances and absences when scheduling leave (vacation).

Output

- In the graphic, attendances and absences are represented by color bars (attendances = yellow; absences = red). If locked records are evaluated, their corresponding attendances and absences are displayed with other colors (locked attendances = blue; locked absences = green). You can also enter a text for the applicable attendance or absence type that is also displayed in the color bars.
- Evaluation can be presented in various periods, such as daily or weekly. You can specify the timeframe even further in the graphic itself.
- After evaluation, you can change the graphic layout (color assignments or grid density, for example).
- From the graphic, you can jump to the displayed infotypes or to the *Display time data* function. For example, you can display additional infotype records or find out more details on the employee's work schedule.
- You can also send the graphic as an e-mail, after exiting.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate all attendance and absence types, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
- To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen. To evaluate only all absences, for example, leave the *Absence types* field blank and exclude all attendances using multiple selection.

Change Settings for Graphic

- Degree of time information
  Enter the timeframe type for display in the *Time unit* field on the selection screen. In this way, you can choose between daily, weekly, or an annual period, for example. You can change the period within the graphic by choosing the *Time unit* menu option.

Attendances/Absences Overview Graphic (Report RPTLEA40)

- Layout
  Choose the *Settings* menu option to change the format of the graphic in the following ways:
  - Improve clarity of graphic (vertical or horizontal grid, grid density, timeline, or print mode)
  - Display attendance/absence type (event block text)
  - Change colors (color assignment)

Obtain Detail Information on Attendances/Absences

1. Select (click on) the attendance/absence in the graphic to obtain more information.
   The relevant infotype record appears.
2. To return to the attendance/absence overview, exit the infotype record.
3. Select the graphic with the cursor.

Obtain Information on an Employee's Time Data

1. Select (click on) the employee's name to obtain more information.
   The *Display Time Data* function appears and here you can jump to additional time infotypes.
2. To return to the attendance/absence overview, exit infotype processing.
3. Select the graphic with the cursor.

Send E-mail

1. Choose *Back* to exit the graphic.
2. Choose *Send SAP Office*.
3. Enter a user name as the receiver.
4. Choose *Document* → *Send*.

Example

You want to see the leave overview for employees in a specific organizational unit for the current month.

Procedure

1. Access the selection screen for report RPTLEA40.
2. Choose *Current month* as the period.
3. Insert the *Organizational unit* field by selecting it in the *Additional selections* section of the selection screen, and enter the organizational unit for which you want to display the employees.
4. Enter all absence types that reflect leave in the *Absence types* field in the *Additional entries* section of the screen.
5. Exclude all attendance types in the *Attendance types* field using multiple selection.
6. Choose *Execute.*

Absence

Definition

The *reports for absences* provide overviews of times when employees have not worked, having given prior notification, for example, if they are on leave or are unable to work due to illness.

Use

You can use the reports for displaying and evaluating absences to

- Summarize or expand employees' attendance and absence data based on various criteria
- Display absences and attendances for each employee in a calendar view
- Display absences and attendances for each employee in a multiple-employee view
- Display employees' absences and attendances in graphical form
- Create a list of employees who are, at a specific time, at work, absent with reason, absent without prior notification, or late

Attendance/Absence Data: Overview (Report RPTABS20)

Use

This report allows you to summarize and classify your employees' attendances and absences from various points of view. The data is displayed in a list. You can display leave data for employees for a particular personnel area sorted according to personnel subarea and employee.

Integration

You can jump from the *Attendance/Absences Data: Overview* to the *Attendances/Absences: Calendar View* report (RPTABS50).

Prerequisites

You can also use the report to evaluate data according to attendance or absence category (that is, the abbreviation for the attendance or absence). To do this, you must first set up the abbreviations in Customizing for attendance and absence types.

Features

Selection

- This report creates different lists showing employees' attendances and absences. You can make specifications in the selection screen that determine the layout of the lists, such as which columns appear and in what order, and how the data is classified.
- For example, you can carry out time evaluation based only on attendances, on absences, or only on individual attendance and absence types.
- You can also enter a payroll period instead of a time period.
- You can also select employees without attendances and absences.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control.
- You can alternate between different views in the output list. You can display all available data, or different detail views.
- You can go directly from the output list to the *Attendances/Absences: Calendar View* report (RPTABS50) for an employee.
- From the output list, you can go directly to the infotype for the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence type* field blank on the selection screen.

  - To restrict the absence types, enter the corresponding absence types in the *Absence type* field.

- To evaluate attendances only:
  - To evaluate all attendances, leave the *Attendance type* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance type* field.
- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance type* and *Absence type* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance type* and *Absence type* fields in the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Group By Organizational Assignment

By choosing *Data format* → *Grouping by organizational assignment*, you determine which organizational data should be inserted as a column in the list. The default settings are *Personnel area* and *Personnel subarea*. You can select additional data in a dialog box. The order in which you choose additional data determines the order in which the columns appear in the list.

Select Data to Display

By choosing *List format* → *Data to be displayed*, you determine what additional data is to be inserted as a column in the list. Default settings are as follows:

- *Attendance/absence hours*
- *Planned Hours*
- *Attendance/absence hours by planned time (percentage)*
- *Attendance/absence days*
- *Planned days*
- *Attendance/absence days by planned days (percentage)*
- *Number of attendance/absence records*

You can select additional data in a dialog box. The order in which you choose additional data determines the order in which the columns appear in the list.

Select Classification of Data in Initial List

If you choose *Classifying data in the initial list* in the selection screen, you can choose the first view of the dataset. In the output list, you can go online to the other display options (see below).

Alternate Views in the Attendance/Absence Data: Overview

Attendance/Absence Data: Overview (Report RPTABS20)

- Choose *Change view* to alternate between the view of one employee's data to the attendance/absence data view.
- Choose *Expand all* to display all available data.
- Choose *Show* <-> *Hide* to show or hide data in a row.
- Choose *Layout* to choose between two different types of layout.
- Choose *Details* to select different detail views. Select a line and choose *Detail.* You can also display the following detail views:
  - By selecting a line containing summarized data for each attendance or absence, and then choosing *Details*, the *Display Attendance/Absence Data: Detail* view appears.
  - By selecting a line containing summarized data for each employee and then choosing *Details*, the *Display Attendance/Absence Data: Calendar View* appears (Report RPTABS50).
  - By selecting a line containing an employee's attendance/absence data for a particular absence type and then choosing *Details*, the infotype records for the data selection period appear. Here you can jump to the individual records or display an employee's personal work schedule.
- You can switch to a print preview by choosing *List* → *Print preview*.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Examples

2. You want to create a list of the most frequent absence types in your enterprise for the year 1997, according to *Personnel area* and *Personnel subarea,* and then document the ratio to planned working time.

   Procedure

   f. Access the selection screen for report RPTABS20.

   g. Choose *Other period* and then enter 01/01/1997 to 12/31/1997.

   h. Choose the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.

   i. Choose *Organizational assignment - Attendance/absence types* in *the Classify data in the initial list* section.

   j. Choose *Execute*. (You can also run the report in the background depending on the number of employees.)

3. You want to measure the success of a new company medical policy introduced for a certain cost center in June, 1997. To do so, select the employees who belonged to this cost center in June 1997, and compare absence hours to planned time for the periods directly before and after the policy was introduced.

   Procedure

   j. Access the selection screen for report RPTABS20.

k. Enter the *Selection period* as 06/01/1997 to 06/30/1997.

l. Insert the *Cost center* field by selecting it in the *Additional selections* section of the selection screen, and enter the cost center for which you want to display the employees.

m. Choose the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.

n. Enter all of the absence types that denote illness in the *Absence types* field.

o. Choose *Cost center* under *Grouping by organizational unit*.

p. Under *Data to be displayed*, choose *Attendance/absence hours according to planned time (percentage)*.

q. Choose *Organizational assignment - Attendance/absence types* in *the Classify data in the initial list* section.

r. Choose *Execute.*

– One time for selection period **01/01/1997 to 06/30/1997** (before company medical policy)

– Second time for selection period **07/01/1997 to 12/31/1997** (after company medical policy)

If other cost centers appear in your list in addition to the cost center you entered, employees presently in the cost center you entered have apparently changed cost centers within the data selection periods. If necessary, you can create the lists again, specifically excluding those employees who changed cost centers from the selection.

Attendance/Absence Data: Calendar View (Report RPTABS50)

Use

This report displays attendances and absence for each employee in a calendar. For example, you can view an employee's leave and business trips for a specific period. In addition, you can produce statistics as well as a legend for both the calendar and the statistics.

Integration

You can branch from the *Attendance/Absences Data: Calendar View* to the *Attendances/Absences: Multiple-Employee View* report (RPTABS60).

Prerequisites

- Attendances/absences are indicated in the output list by their abbreviation (attendance/absence category). These abbreviations must first be set up when you customize attendance and absence types.
- You can also choose alternative periods for the calendar view. These periods, such as a two-weekly period, must be defined in the *Define time evaluation* Customizing step in the Implementation Guide (IMG) for Time Evaluation. Permitted periods include those that do not overlap, those that cover the person selection period without any gaps, and those that do not exceed 40 characters in length.

Features

Selection

- You can run the report to evaluate only attendances, only absences, or individual attendance or absence types, for example. You can also enter a payroll period instead of a time period.
- The calendar can be set up for various display periods, such as monthly or weekly. The period can only be specified using the selection screen.
- You can determine which organizational data is to be displayed in the header of the list and whether the technical keys or text is also to be displayed.
- In addition, you can also display statistics as well as a legend for both the calendar and the statistics.

Output

- The selected attendance/absence types are displayed in the list with their abbreviation. In addition to the abbreviations defined in Customizing, the system may add the symbols "*", "?" "<", ">", or "/".
- From the calendar display, you can generate a multiple-employee view (report RPTABS60) to see which employees have leave in a specified month.
- From the calendar, you can jump to the infotype that belongs to the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence types* field blank in the selection screen.
  - To restrict the absence types, enter the corresponding absence types in the *Absence types* field.
- To evaluate attendances only:
  - To evaluate all attendances, leave the *Attendance types* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance types* field.
- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Determine Display Period

Here you determine the selection period for which you want the calendar to be displayed. The period can only be specified using the selection screen. You can choose from the following display periods:

- Monthly period
- Weekly period
- Alternative period

You can only specify those *Alternative periods* defined in Customizing (see **Prerequisites** section).

Display Organizational Assignment

You can specify which organizational data you want to be displayed in the header by selecting *List format -> Display organizational assignment*. The default settings are *Personnel area* and *Personnel subarea*. You can select additional data in a dialog box. This data is then output in the header in the sequence of your selection.

Display Texts for Organizational Assignment

Here you can decide whether you want the organizational data to be displayed in the header with their texts or just their technical keys.

Attendance/Absence Data: Calendar View (Report RPTABS50)

Generate Statistics

Here you decide whether you want to generate statistics for each employee.
If you select a monthly or weekly period, statistics are printed for the month. If you choose an alternative period, the statistics are generated for that period.
Statistics cumulate the hours per month for a particular attendance or absence category, for example, as well as the percentage ratio of these hours to the employee's planned hours.
Attendance or absence records assigned to the previous day count for the period in which the previous day falls.

Display Legend

Here you choose whether you want to display a legend for all attendance or absence categories selected for an employee (abbreviation and attendance/absence category). This information is then displayed/printed on each page.

Interpret Calendar Display

Attendances/absences are displayed in the list by their attendance or absence category (abbreviation). In addition to the abbreviations defined in Customizing, the following symbols may also appear:

- An asterisk (*) indicates that there are several attendances or absences on that day.
- A question mark (?) indicates that no abbreviation exists in Customizing for the corresponding attendance/absence type.
- A "less than" symbol (<) indicates that one of the attendances/absences of the following day is assigned to this day (previous day assignment).
- A slash (/) indicates that the employee is not active on this day.

Obtain detailed information on attendances/absences

3. Double-click on the abbreviation for the attendance/absence in the calendar to display more detailed information.
   The relevant infotype record appears.
4. To return to the calendar, exit the infotype record.

If attendances and absences occur on one day (indicated by an asterisk), you can choose in a dialog the infotype record to which you want to branch.

Generate Multiple-Employee View

If you have chosen a *monthly* or *alternative* period in the report selection screen, you can generate a multiple-employee view from the calendar display as follows:

4. Select a period (a month, for example) in an employee's calendar.
5. Choose *Multiple employee view* (report RPTABS60).
   A list appears with all selected employees and attendances/absences for the period entered. You can also jump from this list to the abbreviation for attendance/absence in the corresponding infotype record.
6. To return to the calendar, choose *Back*.

Example

You want to see an overview of an employee's leave for the current year.

Procedure

6. Choose *Current year* as the period.
7. Enter the personnel number of the employee in the *Personnel no.* field.
8. Select the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
9. Enter all of the absence types that reflect leave in the *Absence types* field.
10. Choose *Execute.*

Example

You want to display a list of employees from a specific organizational unit who are teaching a training course in the current year.

Procedure

7. Access the selection screen for report RPTABS50.
8. Choose *Current year* as the period.
9. Insert the *Organizational unit* field by selecting it in the *Additional selections* section of the screen, and enter the organizational unit for the employees you want to display.
10. Select the *Only evaluate attendances* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
11. Enter the attendance type *Instructor* in the *Attendance type* field.
12. Choose *Execute.*

Attendance/Absence Data: Multiple Employee View (Report RPTABS60)

Use

You can use this report to display the attendances and absences for each employee in a view for multiple employees. For example, you can display the employees who have leave in a particular month.

Integration

You can also access this report from report RPTABS50 (Attendance/Absence Data: Calendar View). If you call report RPTABS60 (Attendance/Absence Data: Multiple Employee View) directly, it evaluates one month. If, however, you access it from report RPTABS50, you can also evaluate alternative periods (for example, a period of 14 days).

Prerequisites

Attendances/absences are indicated in the output list by their abbreviation (attendance/absence category). These abbreviations must first be set up when you customize attendance and absence types.

Features

The selection period is defined as one month; the report evaluates the month in which the key date lies.

Selection

You can run the report to evaluate only attendances, only absences, or individual attendance or absence types, for example.

Output

- The selected attendance/absence types are displayed in the list with their abbreviation. In addition to the abbreviations defined in Customizing, the system may add the symbols “*”, “?” “<”, “>”, or “/”.
- From the multiple-employee view, you can branch to the infotype for the corresponding attendance or absence.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate absences only:
  - To evaluate all absences, leave the *Absence types* field blank in the selection screen.
  - To restrict the absence types, enter the corresponding absence types in the *Absence types* field.
- To evaluate attendances only:

  - To evaluate all attendances, leave the *Attendance types* field blank in the selection screen.
  - To restrict the attendance types, enter the corresponding attendance types in the *Attendance types* field.

- To evaluate attendances and absences:
  - To evaluate all attendances and absences, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
  - To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen.
- To evaluate attendance/absence categories (abbreviations for attendance/absence types):
  - To evaluate all attendance and absence categories, leave the *Attendance/absence category* field blank in the selection screen.
  - To restrict the attendance/absence categories, enter the corresponding abbreviation for the attendance/absence types in the *Attendance/absence category* field. This means that only the abbreviations specified in Customizing are taken into account.

Interpret multiple-employee view

Attendances/absences are displayed in the multiple-employee view by their attendance or absence category (abbreviation). In addition to the abbreviations defined in Customizing, the following symbols may appear:

- An asterisk (*) indicates that there are several attendances or absences on that day.
- A question mark (?) indicates that no abbreviation exists in Customizing for the corresponding attendance/absence type.
- A “less than” symbol (<) indicates that one of the attendances/absences of the following day is assigned to this day (previous day assignment).
- A slash (/) indicates that the employee is not active on this day.

Obtain detailed information on attendances/absences

3. Double-click on the abbreviation for the attendance/absence in the multiple-employee view to display more detailed information.
   The relevant infotype record appears.
4. To return to the multiple-employee view, exit the infotype record.

If attendances and absences occur on one day (indicated by an asterisk), you can choose in a dialog the infotype record to which you want to branch.

Example

You want an overview of the employees in a particular personnel area who have leave in the current month.

Procedure

7. Access the selection screen for report RPTABS60.
8. Choose *Today* as the key date.

Attendance/Absence Data: Multiple Employee View (Report RPTABS60)

9. In the *Selection* section of the screen, enter the relevant personnel area in the *Personnel area* field.
10. Select the *Only evaluate absences* checkbox in the *Attendance/absence types to be evaluated* section of the screen.
11. In the *Absence types* field, enter all absence types that concern leave.
12. Choose *Execute.*

Attendances/Absences Overview Graphic (Report RPTLEA40)

Use

This report creates a planning table that represents recorded employee attendances and absences. The graphical interface helps in the leave scheduling process or when checking personnel capacities for a group of employees. The evaluation is carried out for each individual employee. You can also evaluate locked records.

Features

Selection

You can evaluate individual attendances and absences when scheduling leave (vacation).

Output

- In the graphic, attendances and absences are represented by color bars (attendances = yellow; absences = red). If locked records are evaluated, their corresponding attendances and absences are displayed with other colors (locked attendances = blue; locked absences = green). You can also enter a text for the applicable attendance or absence type that is also displayed in the color bars.
- Evaluation can be presented in various periods, such as daily or weekly. You can specify the timeframe even further in the graphic itself.
- After evaluation, you can change the graphic layout (color assignments or grid density, for example).
- From the graphic, you can jump to the displayed infotypes or to the *Display time data* function. For example, you can display additional infotype records or find out more details on the employee's work schedule.
- You can also send the graphic as an e-mail, after exiting.

Activities

Determine Attendances/Absences to be Evaluated

- To evaluate all attendance and absence types, leave the *Attendance types* and *Absence types* fields blank on the selection screen.
- To restrict the attendance and absence types, enter the corresponding attendance or absence types in the *Attendance types* and *Absence types* fields on the selection screen. To evaluate only all absences, for example, leave the *Absence types* field blank and exclude all attendances using multiple selection.

Change Settings for Graphic

- Degree of time information
  Enter the timeframe type for display in the *Time unit* field on the selection screen. In this way, you can choose between daily, weekly, or an annual period, for example. You can change the period within the graphic by choosing the *Time unit* menu option.

Attendances/Absences Overview Graphic (Report RPTLEA40)

- Layout
  Choose the *Settings* menu option to change the format of the graphic in the following ways:
  - Improve clarity of graphic (vertical or horizontal grid, grid density, timeline, or print mode)
  - Display attendance/absence type (event block text)
  - Change colors (color assignment)

Obtain Detail Information on Attendances/Absences

4. Select (click on) the attendance/absence in the graphic to obtain more information.
   The relevant infotype record appears.
5. To return to the attendance/absence overview, exit the infotype record.
6. Select the graphic with the cursor.

Obtain Information on an Employee's Time Data

4. Select (click on) the employee's name to obtain more information.
   The *Display Time Data* function appears and here you can jump to additional time infotypes.
5. To return to the attendance/absence overview, exit infotype processing.
6. Select the graphic with the cursor.

Send E-mail

5. Choose *Back* to exit the graphic.
6. Choose *Send SAP Office*.
7. Enter a user name as the receiver.
8. Choose *Document* → *Send*.

Example

You want to see the leave overview for employees in a specific organizational unit for the current month.

Procedure

7. Access the selection screen for report RPTLEA40.
8. Choose *Current month* as the period.
9. Insert the *Organizational unit* field by selecting it in the *Additional selections* section of the selection screen, and enter the organizational unit for which you want to display the employees.
10. Enter all absence types that reflect leave in the *Absence types* field in the *Additional entries* section of the screen.
11. Exclude all attendance types in the *Attendance types* field using multiple selection.
12. Choose *Execute.*

Time Accounts

Definition

The *reports for time accounts* provide an overview of your employees' current time accounts.

Use

You can use the reports for displaying and evaluating time accounts to

- Perform time leveling for employees
- Create and, if required, send a time statement for each employee
- Create an overview of the results determined by time evaluation, for example, an overview of time balances and time wage types for each employee.
- Create an overview of employees' absence quotas using various criteria
- Create an overview of messages issued during time evaluation

Time Leveling (Report RPTCMP00)

Use

This report creates a list of employees for time leveling. You can use the *time leveling* report to compare employees' actual working times to the times documented for them in the form of time or incentive wage data. You can then make corrections or new entries so that the time data corresponds to the actual time worked. You can monitor, for example:

- Which time data is documented with special times
- Whether employees have completed their planned working hours
- Whether there are sufficient time tickets for employees who work on an incentive wage basis.

You can adjust the times, if required.

Determining the comparison times

- Determining the daily *working time*
  In *time leveling*, the term *working time* refers to actual working time, as opposed to planned working time in infotype 0007.

  An employee's daily working time is determined according to whether actual times are recorded and evaluated (*Time Management status* in the *Planned Working Time* infotype (0007).

  – Case 1: No recording of actual times (*Time Management status* field has a value of 0 or 9). The working time is determined from the employee's personal work schedule. *Absences* from infotype 2001 reduce the working time, and *overtime* from infotype 2005 increase the working time.

  – Case 2: Recording of actual times (*Time Management status* field has a value between 1 and 8).
  The working time is calculated from the results of time evaluation (report RPTIME00). The time type flagged as productive time can be specified as a parameter for the report (for example, time transfers can be included in the cumulation of working time via this time type).

  For absences of more than one day, the working time is reduced each day by the time specified in the work schedule. For overtime over more than one day, the number of hours specified in the overtime record is added in equal proportions to the working time of the individual days.

- Determining the *documented time*
  An employee's *documented time* is calculated as follows:

  – The actual labor time from incentive wage time tickets increases the documented time.

  – The actual setup time from incentive wage time tickets increases the documented time.

  – The actual teardown time from incentive wage time tickets increases the documented time.

  – *Attendances* from infotype 2002 increase the documented time.
  For attendances of more than one day, the documented time is reduced each day by the time specified in the work schedule.

  - *Employee remuneration specifications* from infotype 2010 increase the documented time.
  - Time remunerated by a bonus wage type is not taken into account, however.

- Determining the *planned time*
  Planned time refers to the time worked in incentive wages The planned time is calculated from the planned labor time, the planned setup time, and the planned teardown time.

Prerequisites

If actual times are recorded for employees, their working time is calculated from the results of time evaluation. The *Time Leveling* report only produces appropriate results if these employees have been evaluated without errors in time evaluation.

Features

- In the period view, the report displays for each employee the working time, the documented time, and the difference between the two. You can branch from the period view to the day view, and from the day view to the document view.
- In each view, you can add to or correct data using the maintenance transaction. For example, you can create new infotype records or incentive wage data (for an overtime approval, for example).
- In the standard selection screen, you can specify in the *Minimum* field a value as of which the difference between the documented time and the working time is highlighted in color. On the list screen, the differences are highlighted as follows:
  - If documented times exceed working time, the differences are *green*
  - If documented times fall short of working time, the differences are *red*.

    The planned times and the incentive wages results are highlighted as follows, depending on the Customizing settings:
  - Slight excesses or shortfalls in the minimum/maximum results are *yellow*
  - Significant excesses or shortfalls in the minimum/maximum results are *red*
- You can hide employees for whom the difference between the documented time and the working time is less than the value in the *Minimum* field.
- If you evaluate employee who participate in incentive wages, you can also display the planned times for the time tickets and the incentive wages results (labor utilization rates, premiums), in addition to the working time, documented time and the difference. In the *Planned time* and *Result* columns for the period and day views, only values from employee-related time tickets are taken into account. Group results are displayed in the time tickets in the document view.
- If you record all employee attendances in the *Attendances* (2002) or *Employee Remuneration Information* (2010) infotypes, you can use the *time leveling* function to check whether your employees have completed their planned working times.
- The *time leveling* report allows you to compare the specifications in the employee's personal work schedule to the confirmed times from Logistics. This is useful for employees who do not record their actual times at a time recording terminal.
- If you select employees according to the time recording administrator (in the selection screen or using matchcode L), the system displays all employees for whom the administrator is

responsible on the current date (system date). If the administrator was previously responsible for an employee, but is no longer, the employee is not displayed.
For a better system performance, use matchcode L for the selection.

Activities

Switching between the different views

The report has the following views:

- Period view
- Day view
- Document view

Period view

In the standard system, the report first displays a list of the totaled values for the period. For each employee, an overview of the total working time, documented time, and the difference between the two is displayed.

Day view

In the period view, select a line and choose *Choose.* The day view appears. It displays the totaled values for each day of the selection period for the selected employee.

Document view

You can branch from the day view to the document view as follows:

4. Select a line and choose *Choose.*
   The document view appears. It displays the employee's personal work schedule and, if the employee participates in incentive wages, the time tickets.
5. To display the time documents and specified times for the day, choose *Display all.*
6. Select a line and choose *Choose.*
   The corresponding infotype or incentive wage record appears. You can supplement or correct the entries directly.

You can branch to the maintenance function for time or incentive wages data from all the views by choosing *Goto* and *Create.*
If you change records or create new ones for an employee whose actual times are recorded, you must run time evaluation again (choose *Time evaluation*). You can then choose *Refresh* in the period or day view to access the up-to-date data. Changes are continuously updated in the document view.

The Time Statement (Report RPTEDT00)

Use

Report RPTEDT00 creates an overview of the results determined by time evaluation, for example, an overview of time balances and time wage types for each employee. You can use the report to check the time evaluation results, for example, or to send time statements to employees. Employees can use the self-service application for the time statement to view the current status of their time balances and time wage types in the Internet or intranet.

Integration

You have the option of outputting the time statement at the same time as the time evaluation report (RPTIME00). To do this, enter a variant in the *Time statement variant* field in the RPTIME00 selection screen. After time evaluation has run, you can display the time statement by choosing *Display form*. To print the form, choose *Display* → *Print*.

Prerequisites

- Before a time statement can be created, the time data of the selected employees must be evaluated by time evaluation (RPTIME00), that is, the time data must be stored in cluster B2 [Page 599]. The time statement is only output for days that have already been evaluated. This may also include days in the future that have been evaluated provisionally.
- In the selection screen, you can specify which form you want to use for the time statement. You can enter a standard form, or a form that you have created in Customizing. If you form customer-specific time balances and wage types in time evaluation, you are recommended to display them on a customized form.
- Sample forms that represent the most important views of the dataset are supplied in the standard system. You can use them as templates for customer-specific forms. The following forms are provided in the standard system:

TF00	Day-by-day list of principal time balances
TF01	Day-by-day list of principal time balances, header with address, additional information
TF02	Day-by-day list of principal time balances, header with address, additional information in a detailed data display
TFL1	Overview list of cumulated time balances
TFL2	Overview list of the cumulated time balances. Form is only printed under particular conditions. For example, the flextime surplus or deficit is only printed if it is < 0. The conditions can be specified in Customizing.  Only balances of employees with more than 15 hours of excess flextime should be printed.

Features

- Time data and the time balances and wage types formed by time evaluation are output on a daily basis. If you create the time statement for an entire period that has already been accounted, you obtain an overview of the balances calculated for the evaluated period, in addition to the daily balances.

  Please note that the total of daily balances and the balances for the period can be different, depending on period-end processing. This is the case if certain balances are transferred at the end of a period (for example, the flextime balance is converted to overtime).

- You can also output a time statement for periods for which time evaluation triggers a recalculation. The earliest recalculation date for the time statement form defines the first date for which the time statement form is output.

  See also: Setting the Earliest Recalculation Date for the Time Statement Form [Page 520]

- You can also output a time statement for employees who have errors in time evaluation.
- You can branch from the list screen to the time data records to obtain detailed information.
- You can display compressed views of the results, such as weekly totals and summarized time wage types (that is, a time wage type only appears once for each day on the time statement).
- You can add a letterhead to the form so that you can send time statements to your employees. Alternatively, you can allow employees to access information on the time statement in the Internet/intranet in the Employee Self-Service application.

  See also: Internet Time Statement (PA-TIM-EVA Time Statements) [Ext.]

- You can specify an output language for the time statement. For example, if you choose *Employee's lang.*, the time statement is displayed in the employee's language.
- You can use SAP enhancement HRPTIM04 to modify information from tables in cluster B2 before the time statement is output. You may want to do this if you only want to output one time pair each day, for example.

Activities

To obtain detailed information on time data records:

4. In the selection screen, activate the *Branch to time data info* field (under *Parameters for time statement).*
5. Choose *Execute.*

   In the time statement, single results for which detailed information is available are indicated by a magnifying glass icon.

6. Select a line for which you want to view detailed information, and choose *Choose.*

Cumulated Time Results – Time Balances and Time Wage Types (Report RPTBAL00)

Use

This report creates a list of the day balances, cumulated balances, or time wage types from cluster B2. You can check, for example, what balances were formed for each organizational unit. The report can also be used to check value limits set for time and wage types in Customizing.

Prerequisites

If you want to check the value limits for your time and wage types, then you can use the feature LIMIT (hourly value limits for cumulated balances) to define threshold values for individual time or wage types. The feature is divided into 3 subfeatures, as follows:

- *LIMIE*: Hour value limits for daily balances
- *LIMIS*: Hour value limits for cumulated balances
- *LIMIZ*: Hour value limits for time wage types

The threshold values can be specified based on organizational and payscale-related criteria, such as personnel area or pay scale type.
Make the required settings to specify value limits in the *Determine value limits for cumulated evaluation results* Customizing section of the Implementation Guide (IMG) for Time Evaluation.

Features

This report allows you to compare daily balances determined in time evaluation, cumulated balances, or time wage type for various organizational units of the same category (personnel subarea or supervisor area).

Selection

In the *Other parameters – Selection criteria* section, you can specify balances or wage types as selection criteria.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control. You can modify the list online to suit your requirements. The modified list can be saved as a display variant and then called up again by selecting the *Display variants* field in the selection screen.
- You define threshold values for individual time types or wage types when you customize Time Evaluation. If the threshold value is exceeded, the applicable number of hours field appears in red in the list.

Activities

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.].

Example

You want to see how much excess flextime (time type 0006) was worked by employees last year (1998) from cost center 12345, as opposed to employees from cost centers 12344 and 12343.

Procedure

1. Access the selection screen for report RPTBAL00.
2. Choose *Other period* and then enter **01/01/1998 to 12/31/1998** as the interval.
3. Insert the *Cost center* field by activating in the *Additional entries* section of the selection screen, and enter cost centers **12345**, **12344**, and **12343** as single values in the *Multiple entries* section.
4. Select *Cumulated balances* in the *Selection conditions* section, and enter the value **0006**.
5. Choose *Execute.*
6. Choose *Settings* → *Display variants* → *Current...* and transfer the *Cost center* field in the list.
7. Select the *Cost center* column in the list and then choose *Edit* → *Subtotals*…

Time Accounts (Report RPTDOW00)

Use

This report creates an overview of the current time balances for each individual employee. The time balances are calculated in time evaluation. You can also use this report as an alternative to report RPTEDT00 (Time Statement), to inform employees quickly about their current balances, for example.

Integration

If you use time recording terminals, some of the balances displayed are the balances that are to be downloaded to the terminals.
In the *Specify data to be displayed at the terminal* Customizing step in the Implementation Guide (IMG) for **Personnel Time Events**, you can determine which balances are to be downloaded.

Prerequisites

- Time balances must first be generated in time evaluation.
- Time balances must be available for downloading to the time recording terminals. To do so, complete the *Define time types* Customizing step in the IMG for Time Evaluation. Here you activate the *Store for time accounts* field in the *Time Types* view.

Make sure that that balances reflect the last error-free run during the time evaluation report (RPTIME00).

Features

- In the standard selection screen, you can choose payroll area in addition to personnel number as selection criteria.
- You can also send the list as an e-mail.

Activities

Send E-mail

1. Choose *List* → *Save/Exit* → *Office*.
2. Enter a user name as the receiver.
3. Choose *Document* → *Send*.

Displaying Absence Quota Information (Report RPTQTA10)

Use

This report creates overviews of employee absence quotas in various aspects. You can display or print out employee quotas, for example, for those who have remaining entitlement during a specified period.

Features

Selection

- You can also use additional selection criteria to restrict the absence quotas to be included in evaluation. You can choose which quota types with what time units and deduction periods are to be available for evaluation.
- You can not only display or print current quota status, but also quota statuses from the past or in the future. To do so, specify the *Key date for deduction* and a *Key date for entitlement* in the selection screen. This data is used in evaluation in the following ways:

  If a selected employee has an absence quota available for evaluation, then…

  – Entitlement for this quota is calculated up to the *Key date for entitlement*, and

  – Deduction, remaining entitlement, and compensation for this quota is calculated up to the *Key date for deduction*.
- You can carry out a *projection of quota status* for the future so that your employees are informed of expected leave entitlement. If the key dates (for entitlement and/or deduction) for a selected employee are the same or greater than the earliest calculation date for Plant Data Collection (PDC) in the *Payroll Status* infotype (0003) and the projection switch is activated, then the system triggers a time evaluation for this employee (RPTIME00 run in simulation mode).
- You can further restrict employee selection from the selection screen. You can display or print out a list at the end of a year that shows the remaining and compensated entitlement for each employee.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control. The list contains the following data:

  – Personnel number

  – Name

  – Quota

  – Unit

  – Entitlement (total entitlement)

  – Quota used up to key date for deduction

  – Quota compensated up to key date for deduction

  - Total quota remaining (= quota remaining up to key date for deduction - quota used from the key date for deduction - quota compensated from the key date for deduction)

    You can modify the list online to suit your requirements. The modified list can be saved as a display variant and then called up again by selecting the *Display variants* field in the selection screen.

- If there are transfer pools (that is, absence quota records that have not yet been transferred to the *Absence Quotas* infotype (2006)) for the selected employees and quota types on the *key date for entitlement*, you can choose the *Transfer pools* button to display a list showing the complete transfer pool for each employee and quota type on the *key date for entitlement*.

Activities

Restrict Employee Selection

In the *Display* mode, you can restrict the number of employees as follows:

- *All selected employees*
  The output list also contains employees without selected absence quota records
- *Only employees with selected absence quota records*
  The output list contains only those employee who were assigned at least one of the selected quota records.

  You can restrict the selection further:

  - *Only employees with entitlement*
    Only the employees whose total entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with remaining entitlement*
    Only the employees whose remaining entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with compensated entitlement*
    Only the employees whose compensated entitlement does not equal zero or lies within the specified interval are selected.
  - *Only employees with used entitlement*
    Only the employees whose used entitlement does not equal zero or lies within the specified interval are selected.

    If the conditions for both quota entitlement and the remaining quota are set, then only the employees who satisfy *both conditions simultaneously* are selected.

Edit output list

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Example

You want to see an overview of the current amount of deductible absence quotas for employees in a certain personnel subarea. Furthermore, you want to know how much total entitlement results from these absence quotas, broken down according to cost centers.

Procedure

Displaying Absence Quota Information (Report RPTQTA10)

8. Access the selection screen for report RPTQTA10.
9. Choose *Current year* as the period.
10. Enter the relevant *Personnel subarea* in the *Selection* section of the screen.
11. Enter the current year as the *Deduction period* in the *Quota selection* section.
12. Choose *Execute.*
13. Choose *Current display variant* and then transfer the *Cost center* field to the list.
14. Select the *Cost center* column in the list and then choose *Subtotals*…

Displaying Time Evaluation Messages (Report RPTERL00)

Use

This report creates a list of messages issued during time evaluation. The report reads table FEHLER in cluster B2.

Prerequisites

This report is recommended only if:

- Employees participate in time evaluation, and
- Time evaluation report (RPTIME00) is run for the specific day

Features

Selection

By using additional selection criteria, such as the *category of message type* or *number of message type*, you can further restrict the selection of messages from the selection screen.

Output

- The output is an interactive list in the format that is usual for the SAP List Viewer (ALV) Grid Control. You can modify the list online to suit your requirements. The modified list can be saved as a display variant and then called up again by selecting the *Display variants* field in the selection screen.
- Different types of messages (number of message type and message long text) in the output list are indicated by specific colors:
  - Messages indicating a *note* are gray
  - Messages requiring a confirmation are pink
  - Messages that caused time evaluation to terminate are dark red

Activities

The output list contains interactive functions that you can use to process the list and pass it on. For details on the procedure, see the *Getting Started* section of the SAP Library, under *Lists* → SAP List Viewer (ALV) Grid Control [Ext.]

Example

You want to check a certain cost center to see what messages with message type 1 (error set during operation COLER in time evaluation) have been issued during the current month.

Procedure

1. Access the selection screen for report RPTERL00.
2. Choose *Current month* as the period.
3. Enter the cost center in the *Selection* section for *Pers. area/subarea/cost center*.

Displaying Time Evaluation Messages (Report RPTERL00)

4. Enter message **1** in the *Message type* field in the *Error attributes* section.
5. Choose *Execute.*

Reports Using SAP Query

Use

You can use SAP Query to define your own reports without having to do any programming. In Time Management, you can compile information from all relevant master data and time infotypes in the *Time Management InfoSets* (the term *InfoSet* has replaced *functional area*) for reports using SAP Query.

Queries on attendances and absences, employee remuneration information, and employee time and labor are provided as sample queries.

Time Management InfoSets

Definition

The *Time Management InfoSets* (the term *InfoSet* replaces the term *functional area)* define a view specific to Time Management of the fields of the logical database PNP. You can use SAP Queries to display and evaluate these fields.

The following InfoSets are available in *Time Management:*

- Time Management InfoSet

  The global Time Management InfoSet groups together all relevant master data and time infotypes and the simulated infotypes. It offers an overview of all fields provided.

- Time Infotype InfoSets

  The InfoSets for time infotypes enable you to run reports on infotype data. Each time infotype has its own InfoSet, which defines a view specific to the infotype.

- Simulated Infotype InfoSets

  The InfoSets for simulated infotypes enable you to run reports on both infotype data *and* cluster data. Each simulated infotype has its own InfoSet, which defines a view specific to the infotype.

Use

The global *Time Management* InfoSet provides an overview of all the fields that are relevant for your evaluations. You are advised to use the *InfoSets for time infotypes* and the *InfoSets for simulated infotypes* as templates for your own InfoSets. You can use the *Time Management* InfoSet as a basis for creating your own queries, which you can use in addition to the standard reports.
Please note that you have to make some Customizing settings if you want to use *InfoSets for simulated infotypes.* For more information, see the section on *Simulated Infotypes.*

Structure

In addition to the fields of the corresponding infotype, each InfoSet contains fields from the following infotypes:

- Actions (0000)
- Organizational Assignment (0001)
- Time Recording Information (0050)

The following **InfoSets for time infotypes** are available:

- *Absences* InfoSet

  The InfoSet also provides information on a different payment, cost assignment, and activity allocation.

- *Attendances* InfoSet

  The InfoSet also provides information on a different payment, cost assignment, and activity allocation.

- *Availability* InfoSet

  The InfoSet also provides information on a different payment and external document number.

- *Absence Quotas* InfoSet

  The InfoSet also provides information on quota statuses.

- *Attendance Quotas* InfoSet

  The InfoSet also provides information on quota statuses.

- *Employee Remuneration Information* InfoSet

  The InfoSet also provides information on a different payment, cost assignment, and activity allocation.

- *Time Transfer Specifications* InfoSet

- *Time Events* InfoSet

  The InfoSet also provides information on a different payment.

In addition, the following **InfoSets for simulated infotypes** are available:

- *Personal Work Schedule* InfoSet

  The InfoSet uses the assigned fields to provide information from the personal work schedule.

- *Time and Labor* InfoSet

  The InfoSet uses the *Reporting time type* field (also referred to as a time type for reporting) to create a uniform view on time and labor data from various Time Management datasets (attendances, absences, employee remuneration information, and time evaluation results from tables ZES, ZL, C1, and ALP). You create the reporting time type in Customizing, and use the time type to group the time data you require.

- *Quota Statuses* InfoSet

  The InfoSet uses the *Reporting quota type* field (also referred to as a quota type for reporting) to create a uniform view on quota data from various Time Management datasets (attendance quotas and absence quotas). You create the reporting quota type in Customizing, and use the quota type to group the time data you require.

You can view the *field groups* (this term now replaces the term *functional group*) and the fields of individual InfoSets in the InfoSet maintenance function. To access the InfoSet maintenance function from the *SAP Easy Access* screen, choose *SAP Standard Menu → Tools → ABAP Workbench → Utilities → SAP Query → InfoSets.*

Time Management Standard Queries

Definition

As a supplement to the development of the *Time Manager's Workplace, SAP Time Management* provides the following standard queries for the roles of time administrator and time supervisor:

- Attendances: List query
- Absences: List query
- Employee Remuneration Information query
- Time and Labor query

Use

The standard queries provide the following information:

- Attendances: List query

  This query provides an overview of each employee's attendances. In addition to the attendance days and hours, the list also displays account assignment information, such as the debited cost center and the debited order.

- Absences: List query

  This query provides an overview of each employee's absences, specifying the days and hours of absence. It also displays a set of statistics showing an overview of the total quota deduction.

- Employee Remuneration Information query

  This query provides an overview of each employee's remuneration information, specifying the wage type and the number of hours or the rate or the amount.

- Time and Labor query

  This query provides an overview of each employee's time and labor data, which is grouped in the reporting time type. The list displays the actual time and the account-relevant time.

You can use these standard queries as templates for your own queries, which you can then modify to suit your own requirements using the query maintenance function.

You can access the standard queries from

- The query maintenance transaction. In the *SAP Easy Access* screen, choose *SAP Standard Menu -> Tools -> ABAP Workbench -> Utilities -> SAP Query -> Queries*
- Roles *SAP_HR_PT_TIME-ADMINISTRATOR* and *SAP_HR_PT_TIME-SUPERVISOR*

Simulated Infotype

Definition

Simulated infotypes enable you to run reports for a wider range of business purposes, since the infotype concept provides data from various sources (infotype data, time evaluation results, and data from the personal work schedule) in a clear overview. *Simulated infotypes* are called *simulated* because they are not stored in a database table, and are only provided at the evaluation runtime.

Use

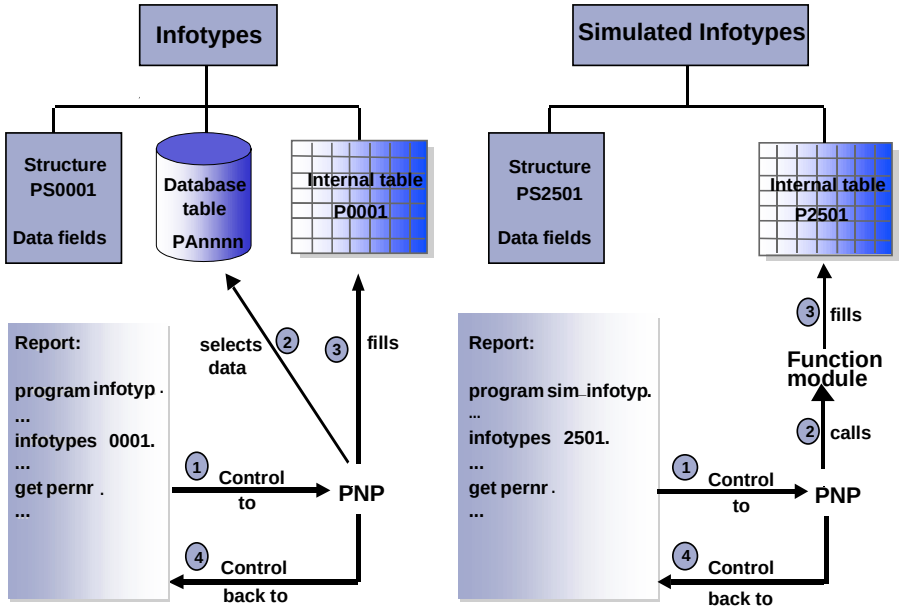
You can use *simulated infotypes* in the same way as infotypes for your own ABAP programs and for reports using SAP Query, since they are stored in the logical database PNP, as other infotypes are. For example, you can use *simulated infotypes* to read and evaluate data from cluster tables ZES and ZL using infotype structures. For example, you can create one set of statistics for employees with *Time Management status* 0 and employees with *Time Management status* 1 that takes account of overtime from time balances (cluster table ZES) *and* the *Employee Remuneration Information* infotype (2010).

Structure

In the same way as other infotypes, *simulated infotypes* are defined using a PSnnnn structure, which contains the data fields. Simulated infotypes also have a Pnnnn structure, which acts as an interface between the logical database PNP and the report.

Unlike infotypes, *simulated infotypes* have no database table PAnnnn. Whereas data in other infotypes is selected directly from the PAnnnn tables in the logical database PNP, for simulated infotypes the data is read from the various tables by a function module called by the logical database during the report runtime.

Simulated Infotype



Note:

The TIM_INFTY switch is set for *simulated infotypes* in table T777D so that the logical database can differentiate infotypes and *simulated infotypes.*

Personal Work Schedule (Simulated Infotype 2500)

Definition

The *Personal Work Schedule* simulated infotype provides information from the personal work schedule.

Use

You can use the *Personal Work Schedule* simulated infotype for your own ABAP programs and for reports using SAP Query, since it is stored in the logical database PNP, as other infotypes are.

For example, you can create an overview of the planned working hours for each personnel area for each month.

Structure

The *Personal Work Schedule* simulated infotype groups together the following types of data:

- Data from the *Organizational Assignment* (0001) and *Planned Working Time* (0007) infotypes
- Additional information such as *Planned time acc. to personal work schedule* and *Planned time without public holidays.*

The SAP System takes account of the following types of data when calculating the *planned time*:

- The daily work schedule (determined from the corresponding work schedule rule in the *Planned Working Time* infotype (0007))
- The employment percentage from the *Planned Working Time* infotype (0007)
- The *Substitutions* infotype (2003)

Employee Time and Labor (Simulated Infotype 2501)

Definition

In the *Employee Time and Labor* simulated infotype, you can use a *reporting time type* (also referred to as a time type for reporting) to create a uniform view on quota data from various Time Management datasets (attendances, absences, employee remuneration information, and time evaluation results from tables ZES, ZL, C1 and ALP).

Use

You can use the *Employee Time and Labor* simulated infotype for your own ABAP programs and for reports using SAP Query, since it is stored in the logical database PNP, as other infotypes are.

You can use the *Employee Time and Labor* simulated infotype to create overtime statistics that take account of overtime from time balances (cluster table ZES) and employee remuneration information (infotype 2010), for example. To do so, you create a time type for *Overtime* in Customizing, and use the time type to group the time data you require.

Structure

The *Employee Time and Labor* simulated infotype groups together the following data:

- Data from the *Organizational Assignment* (0001) and *Planned Working Time* (0007) infotypes
- Time specifications such as the *reporting time type* (REPTT field) with the number of hours and days
- Specifications on cost assignment
- Specifications on activity allocation
- Specifications on a different payment

Quota Statuses (Simulated Infotype 2502)

Definition

In the *Quota Statuses* simulated infotype, you can use a *reporting quota type* (also referred to as a quota type for reporting) to create a uniform view on quota data from various Time Management datasets (attendance quotas and absence quotas).

Use

You can use the *Quota Statuses* simulated infotype for your own ABAP programs and for reports using SAP Query, since it is stored in the logical database PNP, as other infotypes are.

You can use the *Quota Statuses* simulated infotype to create leave statistics that group together various absence quotas, for example. To do so, you create a reporting quota type for *Leave* in Customizing, and use the quota type to group the time data you require.

Structure

The *Quota Statuses* simulated infotype groups together the following data:

- Data from the *Organizational Assignment* (0001) and *Planned Working Time* (0007) infotypes
- Quota transaction data:
  - *Reporting quota type* (QUOTA field)
  - Data from the *Absence Quotas* infotype (2006)
  - Data from the *Attendance Quotas* infotype (2007)

Note:

The *Quota Statuses* simulated infotype also takes account of data from the *Leave Entitlement* infotype (0005).

Time Manager's Workplace

Use

The *Time Manager's Workplace* is a user interface incorporating the tasks involved in administrating employee time and labor and time evaluation messages. It was specifically designed to meet the needs of time administrators in decentralized departments.

The role of decentralized time administrator is often fulfilled by on-site supervisors, specialists, secretaries, or administrators for their individual divisions. These people are generally responsible for managing the time and labor data of a relatively small number of employees.

Successful decentralization of time management demands that tools used to manage employee time and labor be comprehensive, efficient, and easy to navigate. The *Time Manager's Workplace* enables time administrators to learn time management tasks quickly and supports them in their daily work.

Integration

The *Time Manager's Workplace* replaces the majority of functions of the *Maintain Time Data* (PA61) *Time Management Pool* (PT40), and *Time Recording for Multiple Persons and Infotypes* (RPTENT00) transactions.

Prerequisites

In the Implementation Guide for Personnel Time Management, you must have performed the Customizing steps for:

- *Time Data Recording and Administration* You can skip the steps for modifying user interfaces if you do not require them for centralized time data administration in the HR department.
- *Time Manager's Workplace*

In Release 4.6C, the calendar views for the *Time Manager's Workplace* were first delivered to pilot customers only. If you are interested in the calendar views, please contact mySAP HR Development for Time Management.

Features

The *Time Manager's Workplace* provides an integrated user interface for Time Data Maintenance [Page 858] and Message Processing [Page 873].

- You can enter, correct, and complete all time data on one screen. You receive all the information you require to valuate the day.
- The intuitive navigation options simplify your work.
- Automatically display employees in your area of responsibility in an employee list.
- You enter time data using easily identifiable IDs for Time Data [Page 859] (such as "S" for sick or "V" for vacation).
- You can choose between various views for administrating time data, such as those where you enter time data in a list or color calendar views.
- In the message processing function you can choose between a message-oriented view and an employee-oriented view.

- The user interface is made up of different, technically independent screen areas. You can customize any number of variations of these screen areas.
- You can personalize the *Time Manager's Workplace* to a great extent. This enables you to provide different views for each user, a different initial period, or different fields for recording time data.
- So that you do not have to customize a separate *Time Manager's Workplace* for each time administrator, you define all screen areas, functions, and so on separately. You use *profiles* grouping various views and functions to assign settings to time administrators. Because of the high degree of modularization, you can reuse the Customizing settings as often as required.

Time Manager's Workplace Within Time Management

In the *Time Data Maintenanc*e function, you can process the following time data for your employees:

What	is stored where?
Changes to the personal work schedule	The *Substitutions* infotype (2003)
Availability	The *Availability* infotype (2004)
Attendances and absences, such as activities and absence times	The *Attendances* infotype (2002) The *Absences* infotype (2001)
Employee remuneration information, such as bonuses	The *EE Remuneration Info* infotype (2010)
Different payments	The infotype for which the different payment was entered
Overtime approvals	The *Attendance Quotas* infotype (2007)
Activity allocations for Controlling, postings to orders and projects, cost assignments	The infotype for which the different payment was entered
Checkboxes indicating company-specific content, such as a general overtime approval	The *Time Transfer Specifications* infotype (2012)
Employees' postings at time recording terminals	The *Time Events* infotype (2011) or the TEVEN table

The *Time Manager's Workplace* replaces the following user interfaces:

- Object Manager: Working with the Object Manager [Page 248]
- The *Maintain Time Data* transaction (PA61)
- Maintaining Time Data Using the Time Data Menu [Page 257]
- Maintaining Time Data Using a Calendar [Page 259]
- Weekly Time Recording Screen [Page 271]
- Maintaining Time Data Using List Entry [Page 281]

The following functions complement those of the *Time Manager's Workplace*:

- The *Fast Entry of Time Data* transaction (PA71): Fast Entry of Time Data for Multiple Employees [Page 290]
- The *Quota Overview* transaction (PT50): Quota Overview: Checking, Valuating, and Correcting Quotas [Page 314]

Functional enhancements in comparison with the other user interfaces

The *Time Manager's Workplace* has the following advantages over the above-mentioned user interfaces for maintaining time data:

- In the *Time Manager's Workplace* you can also enter break times for the *Attendances* infotype (2002). As a result, the *Attendances* infotype (2002) covers all the functions of the *Overtime* infotype (2005).

  The *Overtime* infotype (2005) is therefore not included in the *Time Manager's Workplace*.

- You can enter attendances and absences even if the required quota has already been used for future attendances or absences. When the new record is entered, the data record already entered for a future period is automatically reset and the new record is deducted according to the rules defined (for example, deduction priority). Then the data record entered for the future period is deducted from the quota.
- The system automatically revaluates attendances and absences when the planned specifications are changed.
- All contextual information required for processing time evaluation messages is displayed directly in the message processing function. You can flag processed messages and remove notes and information messages from the message list when you have taken note of them.

Functional restrictions in comparison with the other user interfaces

The following functions of the *Maintain Time Data* transaction (PA61) are not available in the *Time Manager's Workplace*:

- The *dynamic actions* function is not technically supported
- The function that triggers Workflow items when time infotypes are posted in the *Time Manager's Workplace* is not available
- When time data collides it is not automatically delimited
- Country-specific feature for United Kingdom only: Absences containing information relevant to continued pay cannot be changed in the *Time Manager's Workplace*.

Example: Processing Time Entries

Thor Nielson is a supervisor in a factory. He is responsible for entering and maintaining time and labor data for the employees assigned to him. His group contains 20 employees.

Every morning, Thor Nielsen accesses the *Time Manager's Workplace* to enter employees' documents and sickness notifications in the SAP System.

When Thor Nielsen accesses the *Time Manager's Workplace,* the system automatically displays a list of all the employees who are assigned to him. The system automatically displays the *Multi-Day View,* since this is the view Thor Nielsen uses most often. The *Multi-Day View* displays one employee's time data for the current week and the following week.

Changing the planned specifications

The employee David Grecco is supposed to work the late shift on April 19 and 20. Thor Nielsen selects David Grecco in the employee list. He overwrites the *time data ID* "NO" for normal working time with "LT" for late shift on April 19 and 20. When he chooses ENTER, the late shift is recorded in the system.

Entering a bonus and a doctor's appointment

On April 13, Helga Martin receives a dirty-work bonus that is to be debited from cost center 88880001.

Thor Nielsen selects Helga Martin in the employee list. He expands April 13 in the *Multi-Day View.* The system automatically provides a blank line in which he can enter time data. He enters "DW" to indicate a dirty-work bonus, enters one hour for the duration, and adds cost center 88880001. When he chooses ENTER, the dirty-work bonus is entered in the system, and a blank line appears for him to enter additional time data.

Helga Martin has a doctor's appointment on April 14. Thor Nielsen therefore expands this day. He enters "DOC" in the blank line to indicate the doctor's appointment, and enters 10:00 - 11:00 for the time. When he chooses ENTER, the doctor's appointment is entered in the system and a new blank line appears for that day.

Recording leave for several days

Elena Lopez has submitted a leave request for May 8 through May 19. Thor Nielsen selects Elena Lopez in the employee list. He selects the period from May 8 through May 19 by dragging his mouse over the days in the calendar. This period is now displayed in the *Multi-Day View.*

By expanding the employee information, Thor Nielsen checks whether Elena Lopez has enough remaining leave. She still has 12 days of leave.

Thor Nielsen chooses *Create* to enter leave over the time period. The *detail area* is expanded. He enters "LE" for leave. The required period is already defined. After Thor Nielsen chooses ENTER

- Additional fields appear in the detail area in which he can enter more details on the time entry
- He can check the deduction of the leave entitlement directly in the employee information area

Entering time data for several employees simultaneously

The entire Assembly Group 2 is to take leave on May 8 because the machines have to be serviced.

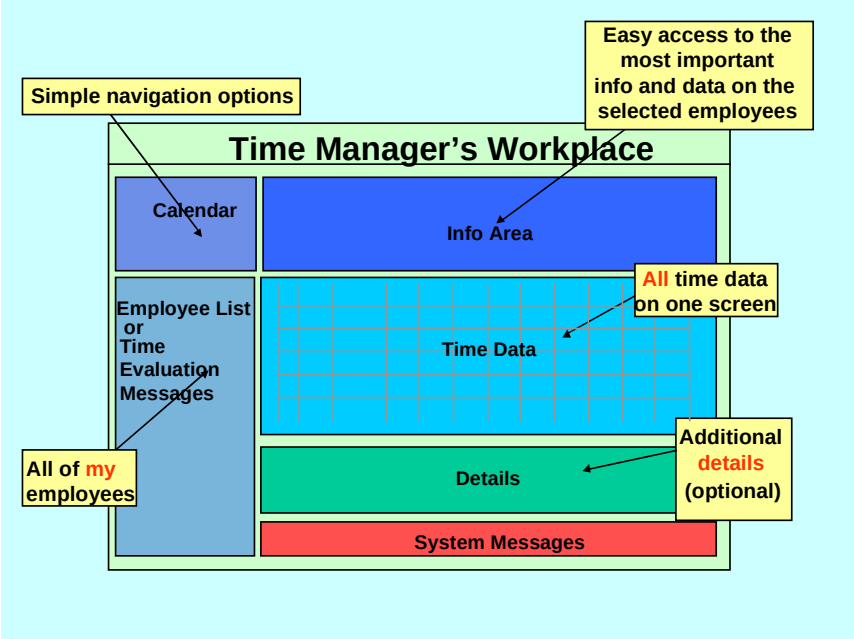
Thor Nielsen switches to the *Multi-Person View.* The system displays the time data of all employees in his group.

He enters “LE” for leave beside Pierre Dubois. He then selects this line and chooses *Copy.* He then chooses *Insert for every person.* The leave record is now entered for all employees.

The system informs Thor Nielsen that a leave record has already been entered on May 8 for Elena Lopez. He then selects the duplicated row and chooses *Delete.*

Screen Areas of the Time Manager's Workplace

The following diagram shows the layout of the *Time Manager's Workplace*:



You configure the *Employee List*, *Info Area*, *Time Data*, and *Details* screen areas in the *Time Manager's Workplace* section of the Implementation Guide (IMG) for *Personnel Time Management*. The layout can be modified to fulfill the requirements of your time administrators. Therefore, you have the option of combining different layouts in your profiles.

Consult with your time administrators before a project team) defines the final layout for the individual screen areas in the IMG, as these administrators will be using the TMW on a daily basis to complete their time-related tasks.

The layouts for *Time Data Maintenance* and *Message Processing* screens are already contained in the standard SAP System. You can use them as models and copy and modify the individual screen areas to suit your business requirements.

Calendar Screen Area

Definition

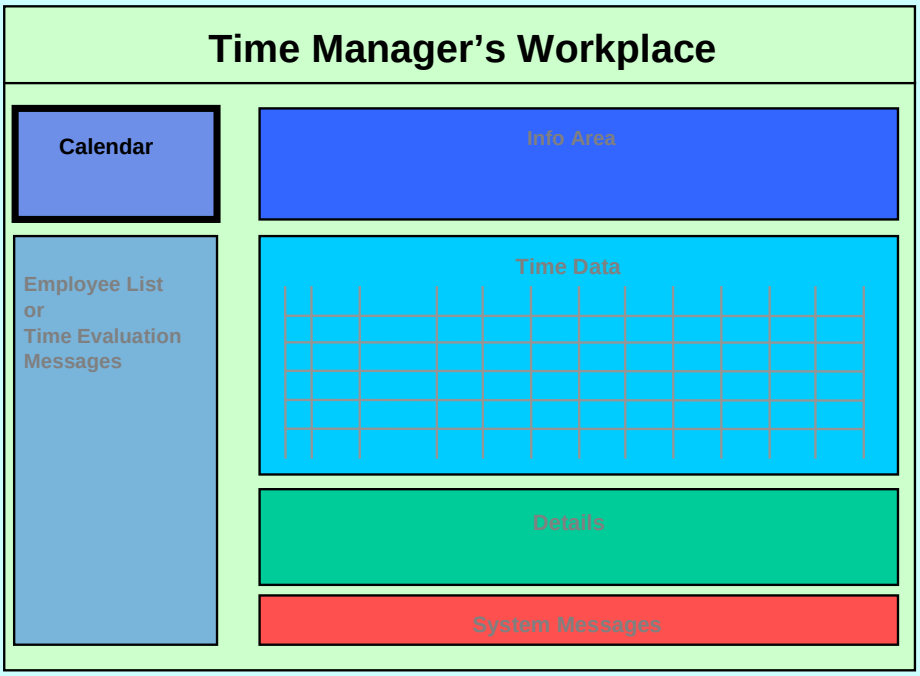
You can use the calendar in the *Time Manager's Workplace* to select the time period for which you want to process or display time data. Using the calendar, you can also enter data for the entire period at the same time.

Use

A period is automatically selected when you access the *Time Manager's Workplace*. You define the duration of this initial period when you customize the profile settings in the IMG for the *Time Manager's Workplace*. If you want to process a different period, you can use the mouse to select another period or day.

To show or hide the calendar, choose *Settings* → *Show/hide calendar*.

If you want to show the calendar, the employee list must also be displayed in the *Time Manager's Workplace*



Activities

To select...	Proceed as follows
A day	Use the mouse to click on the required day

Calendar Screen Area

Several days, weeks, or months	1. Use the mouse to click on the first day of the period and hold down the mouse button. 2. While holding down the mouse button, drag the mouse to the last day of the period. Note: Weekends are automatically selected for periods spanning more than one week.
A week	Use the mouse to click on the column heading of the required calendar week.
A month	Use the mouse to click on the column heading of the required month.

Employee List Screen Area

Definition

The system displays only those employees in the employee list who are assigned to the profiles of the individual time administrators. A time administrator selects an employee from the employee list to maintain or display their time data.

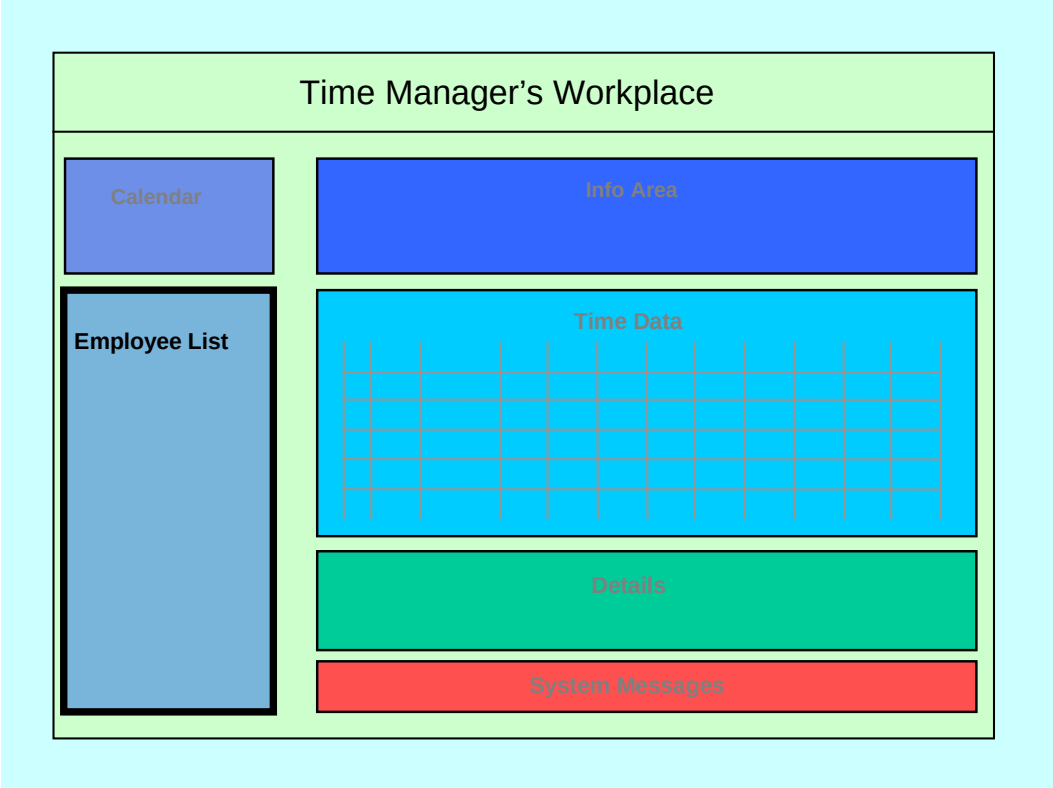
If required, and provided he or she has the required authorization, the time administrator can add more employees and employee groups to his or her employee list.

Use

Depending on the profile settings, a time administrator can be assigned to and use more than one employee list. Time administrators can also create their own employee lists [Page 832], and change [Page 835] or delete [Page 836] them when necessary if the required setting is made in their profile.

To maintain or display an employee's data, time administrators must double-click on the employee's name in the employee list. In the *Multi-Person View*, you can select several employees at the same time and include them in the *Time Data* screen area for processing.

Structure



Employee List Screen Area

- The format of the employee list is determined by the profile used when the *Time Manager's Workplace* is accessed. The employee list can appear either in a tree structure or without any hierarchy displayed.

  You can also provide time administrators with additional information on employees, such as their master data or time accounts. This additional information is displayed in columns in the employee list.

- Time administrators can set up their own  display variants from the columns permitted in their profiles. As a result, time administrators can format the information they find relevant in a way that works for them.

- If you want to assign more than one employee list to a time administrator, choose Employee List [Page 831]. Here the time administrators will find all of their employee lists, including the ones they created themselves.

- Time administrators can temporarily insert one or more employees into their employee lists who are not usually assigned to them by choosing the Temporarily Insert Employees [Page 837] function.

- Time administrators exit the employee selection to refresh the employee list [Page 838].

Maintaining Your Own Employee Lists

Use

Depending on your profile, you can create your own employee lists [Page 832], and change [Page 835] or delete [Page 836] them if necessary. The *Maintain Your Own Employee Lists* function is available for this purpose. For example, you can create your own employee list for all employees whose time data you only occasionally maintain.

The system displays the employee lists you create as well as the employee lists assigned to you in your profile under  *Employee list*.

Prerequisites

Your profile settings must indicate you can create your own employee lists.

Features

The following selection options are available for creating your own employee lists regardless of your specific profile:

- **Set Up Employee List Using a Template**

  In the *Maintain Your Own Employee Lists* screen, choose the *Reporting set: No restrictions* button. In the *Restrict by* field, the system shows the template you can use to create your own employee list. For example, you can specify in a template that all employees are selected according to a certain evaluation path in organizational management. You can also select only employees who belong to a certain administrative group.

- **Set Up Your Own Employee List Based on Selection Criteria of an Infoset**

  If field groups and fields are displayed in the left side of the screen in the *Maintain Your Own Employee Lists* screen, you can set up your own employee list based on the selection criteria of an infoset. For example, you could display the *personnel number*, *employee subgroup*, *work schedule rule* here. You can enter the applicable values in these fields on the right side of the screen. The system selects the employees that meet the values entered here for inclusion in your employee list.

- **Set Up Your Own Employee Lists Based on a Combination of a Template and Selection Criteria of an Infoset**

  If you make the relevant settings when Customizing your profile, you can set up your own employee list using a template as well as the selection criteria of an InfoSet. For example, you can set up your own employee list in which all hourly-wage earners (InfoSet) of a certain organizational unit (template) are selected.

Creating Your Own Employee Lists

Use

Depending on your profile settings, you can set up your own employee lists based on various selection criteria. The following selection criteria can be used:

- Template
- Selection criteria of an infoset
- Combination of template and selection criteria of an infoset

Determine the option that applies in your case and follow the applicable procedure.

The system selects the employees using a key date. You can specify an *evaluation period* when creating your employee list. This evaluation period is important to determine the reporting set and number of hits. However, the evaluation period has no effect on determining the employees included in the employee list in the *Time Manager's Workplace*. The system uses the period currently chosen to actually select the employees.

Prerequisites

Your profile settings must indicate you can create your own employee lists.

Procedure

Set Up Employee List Using a Template

1. Choose *Employee list*.
2. Choose *Maintain your own employee lists*.

   The *Maintain Your Own Employee Lists* screen appears.
3. Confirm the *Reporting set: No restrictions* by choosing the pushbutton.

   In the *Restrict by* line, the system displays the first of the possible templates.
4. Choose the arrow pointing downwards next to the template.

   The system displays the available templates.
5. Choose any template.
6. To activate the template, choose .

   The system displays the number of persons in the reporting set of this template.

   If you want to display the individual employees, choose (*Display reporting set*). To delete your selection, choose (*Delete reporting set*).
7. *Save* your entries.
8. In the *Save Selection ID* dialog box, enter a selection ID as well as a text for your employee list, and then choose *Save*. The system displays the selection text under the *Employee list*.
9. Choose *Back*.

The system displays your employee list under *Employee list*. Select the employees you want displayed in the list.

Set Up Your Own Employee List Based on Selection Criteria of an Infoset

1. Choose *Employee list*.
2. Choose *Maintain your own employee lists*.

   The *Maintain Your Own Employee Lists* screen appears. Field groups and fields available for restricting your employee selection are displayed on the left side of the screen. All fields in this screen are selected in the standard SAP System. By deselecting the fields, you can remove the selection fields from the list.

   You can only deselect the fields applying to the employee list currently being created. When you access this function again, the system displays all of the fields for this infoset.
3. Enter the applicable values in the fields you selected on the right side of the screen.

   You want to display all active employees in the cost center COST1 in your employee list. Enter ***3*** (= active) In the *Employment status* field and ***COST1*** in the *Cost center* field.
4. Choose *Hitlist* to display the number of employees selected.

   To display the individual employees, choose *Display hitlist*. To delete your selection, choose (*Delete hitlist*).
5. *Save* your entries.
6. In the *Save Selection ID* dialog box, enter a selection ID as well as a text for your employee list, and then choose *Save*. The system displays the selection text under the *Employee list*.
7. Choose *Back*.

The system displays your employee list under *Employee list*. Select the employees you want see displayed in the list.

Set Up Your Own Employee Lists Based on a Combination of a Template and Selection Criteria of an Infoset

1. Choose *Employee list*.
2. Choose *Maintain your own employee lists*.

   The *Maintain Your Own Employee Lists* screen appears.
3. Choose the *Reporting set: No restrictions* button.

   In the *Restrict by* line, the system displays the first of the possible templates.
4. Choose the arrow pointing downwards next to the template.

   The system displays the available templates.

Creating Your Own Employee Lists

5. Choose your template.
6. To activate the template, choose .

   The system displays the number of persons in the reporting set of this template. For example, you can display all employees belonging to the *Production/Maintenance* organizational unit.

   If you want to display the individual employees, choose (*Display reporting set*). To delete your selection, choose (*Delete reporting set*).

7. Field groups and fields available for restricting your employee selection are displayed on the left side of the screen. All fields in this screen are selected as a default in the standard SAP System. If you do not need certain fields to create your employee list, deselect these fields.

   The system hides these fields from display.

   You can only deselect the fields applying to the employee list currently being created. When you access this function again, the system displays all of the fields for this infoset.

8. Enter the applicable values in the fields you selected on the right side of the screen. By doing so, you can restrict the reporting set for the template selected above.

   You want to display all **hourly-wage earners** in the Production/Maintenance organizational unit. Enter HW (for hourly wages) in the *Employee subgroup* field.

9. Choose *Hitlist* to display the number of employees selected.

   The system reduces the hitlist by restricting even further the employees selected in the previous template based on the additional restrictions you entered in the field.

   To display the individual employees, choose *Display hitlist*. To delete your selection, choose (*Delete hitlist*).

10. *Save* your entries.
11. In the *Save Selection ID* dialog box, enter a selection ID as well as a text for your employee list, and then choose . The system displays the selection text under the *Employee list*.
12. Choose *Back*.

The system displays your employee list under *Employee list*. Select the employees you want see displayed in the list.

Change Your Own Employee Lists

Use

If one of the employee lists you created no longer meets your requirements, you can change it.

Procedure

1. Choose *Employee list*.
2. Choose *Maintain your own employee lists*.

   The *Maintain Your Own Employee Lists* screen appears.
3. Choose *Get Selection ID*.
4. Enter the selection ID to be changed in the *Get Selection ID* dialog box and then confirm .

   You return to the *Maintain Your Own Employee Lists* screen to determine which selection criteria is valid for this employee list.
5. Make any necessary changes.
6. *Save* your entries.
7. The system proposes the previous name for your employee list in the *Save Selection ID* dialog box. If you want the changed employee list to only contain the new selection criteria, choose to save the new employee list under its previous name.

   If you enter a different name for your employee list in the *Save Selection ID* dialog box, the system creates an additional employee list. In the latter case, both the previous and the newly changed employee lists are now available for use.

Result

You changed one of your own employee lists.

Delete Your Own Employee Lists

Use

You can delete your own employee lists if they are no longer needed.

Procedure

8. Choose  *Employee list*.
9. Choose *Maintain your own employee lists*.

   The *Maintain Your Own Employee Lists* screen appears.
10. Choose  *Get Selection ID*.
11. Enter the selection ID to be deleted in the *Get Selection ID* dialog box and then confirm  .

    The *Maintain Your Own Employee Lists* screen appears.
12. Choose  *Delete Selection ID*.
13. Choose the confirmation prompt.

Result

You deleted one of your own employee lists.

Insert Employees Temporarily in List

Use

If you want to maintain time data for employees not included in the displayed list, you can insert them temporarily in the employee list.

A few weeks ago, one of your employees changed departments in your enterprise. For this reason, the employee is no longer included in your employee list. However, if you want to correct or display data for this employee, simply insert him or her again temporarily in the employee list.

Employees temporarily inserted in the employee list remain there until you restart the *Time Manager's Workplace*.

Procedure

1. Choose  *Employee list*.
2. Choose *Temporarily insert employee*.
3. Enter the employee's personnel number.

   If you do not know the employee's personnel number, use the possible entries help option (F4).
4.  *Confirm* your entries.

Result

The system inserted this employee temporarily in your employee list.

Refresh Employee List

Use

An employee selection period is stored in your Customizing settings to use when selecting employees. The system uses this employee selection period to determine the employees to be displayed.

For example, your profile can state that the employee list always contains information for one week prior and one week after the current week. This means that the system displays all of the active employees (those who have not left the company) assigned to you for the current as well as the previous and subsequent weeks.

If you exit from this employee selection period by jumping to a different period in the calendar, the following info message appears: *Employee list not current*. In this case, you can refresh your employee list. The system then selects all of the active employees assigned to you for the current selected period.

If you are sure that no additional employees were assigned to you for the new period selected, then you do not need to refresh the employee list.

Procedure

1. Choose  *Employee list*.
2. Choose *Refresh employee list*.

Result

The system reevaluates the employee selection period. The system now displays only the employees assigned to you for the new period selected.

Select Several Employees at One Time

Use

In the *Multi-Person View*, you can select several employees at one time in the *Time Data* screen area.

Prerequisites

You are in the *Multi-Person View*.

Procedure

1. Select your employees from the employee list.
2. To do so, position your cursor on the first of the employees to be selected. Hold the *Shift* key and position the cursor on the last employee to be selected.
3. First release the cursor and then the *Shift* key.

   The selected employees are highlighted.
4. Choose  (*Copy selected records*).

   The system copies the selected employees to the *Time Data* screen area.

Employee Data Screen Area

Definition

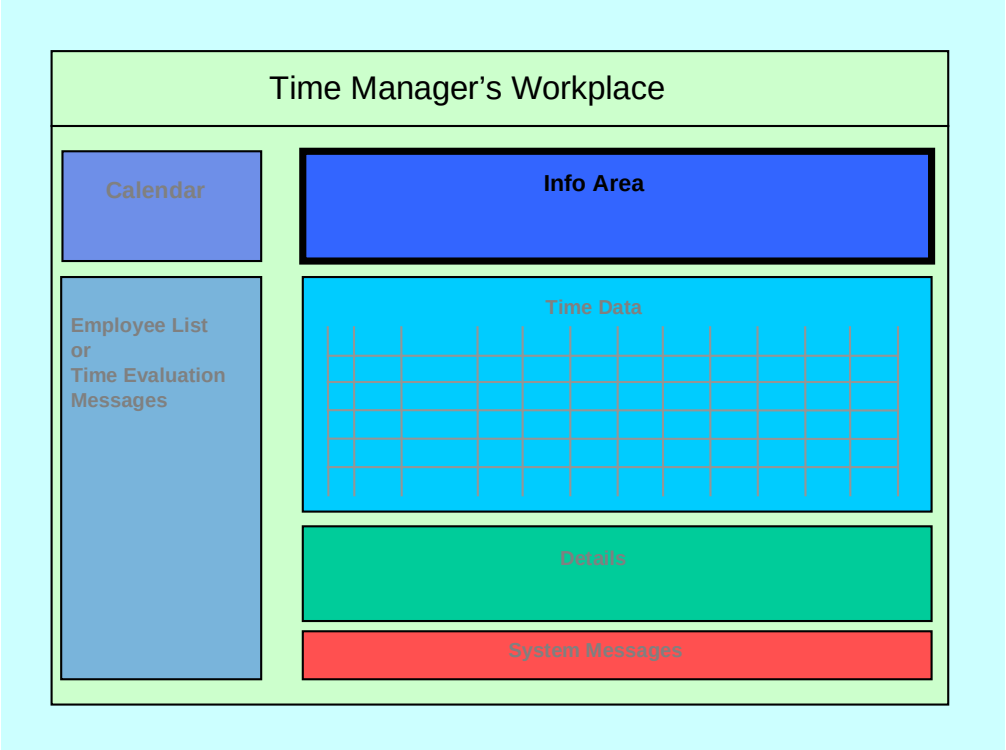
Additional information on selected employees is displayed in this section to assist you when maintaining time data.

Use

You can display certain HR master data or time account balances in the employee data screen area.

It can be particularly useful to view the time account balances when recording leave or time-off entitlement as you can immediately recognize if enough quota remains before you actually enter the time data.

Structure



- To show the employee data, choose *Show employee data* or select an entry from the dropdown list box.
- To hide the employee data, choose *Hide employee data*.
- You can change or supplement the possible entries in the dropdown list box in the Implementation Guide (IMG) for the *Time Manager's Workplace*. Complete the Customizing steps in the *Employee Data* section. You can also determine the layout for each of the entries.

- In the layout, you specify what information is to be displayed where for the selected entry. You define the information you want to display in *display objects.* You specify the display objects in the *Providing Information from HR Data and Time Data* step of the IMG for the *Time Manager's Workplace*.

Integration

If you have already defined reporting quota types or reporting time types for a query or the Business Information Warehouse (BW), you can also use them in the *Time Manager's Workplace*.

Time Data Screen Area

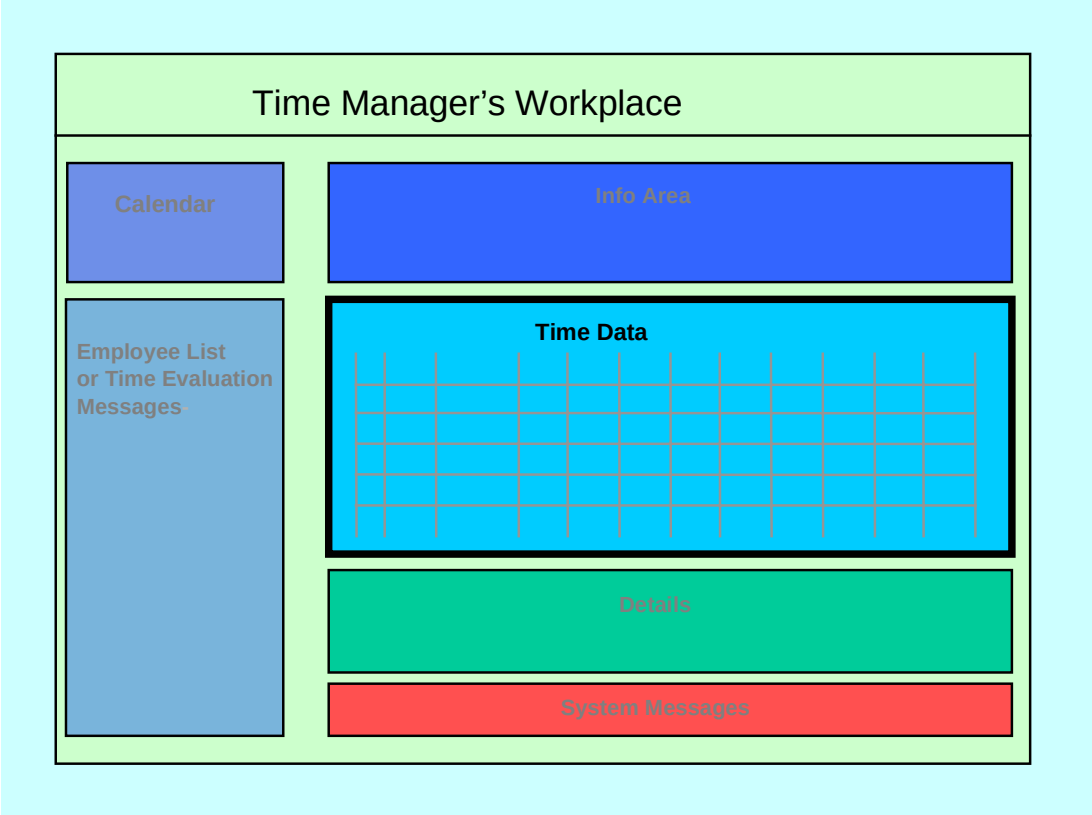
Definition

You can enter, change, and display all types of time data for your employees from this one screen, without switching to other screens.

Use

In this screen area, you can display employees' planned specifications and the time data already recorded for them. You can also schedule employees' times, add additional time data, and check whether the data entered is accurate and complete. To do so, you use intuitive time data IDs [Page 859].

Structure



The screen area can be extended across more than one tab. You can define what input fields or views you want to appear on each tab.

Integration

- If the table is not sufficient enough to fully enter your time data, use the Details [Page 855] screen to do so. Simply double-click on the time entry or choose *Show details*.
- You can use this screen to further specify your time data, if necessary.

- This *Time Data* screen area is used for both *Time Data Maintenance* as well as *Message Processing* tasks.

Views for Entering Time Data

Use

The *Time Manager's Workplace* has several views for processing time data. Each one represents a particular range of tasks that time administrators perform.

The profiles you provide for your time administrators depends on:

- Whether you record times as a number of hours or as clock times
- Whether you usually enter additional data with the times
- Whether you record actual times or just the deviations from the work schedule
- Whether your employees have irregular working times

Integration

You can customize the views for entering time data to suit your specific requirements. You use profiles for the Time Manager's Workplace to provide your time administrators with the views that best support their range of tasks.

Prerequisites

In Release 4.6C, the calendar views for the *Time Manager's Workplace* were first delivered to pilot customers only. If you are interested in the calendar views, please contact SAP HR Development for Time Management.

Features

The views can be grouped into the following categories:

- Views for entering time data in a list

  These views enable you to enter large amounts of data quickly for multiple employees. You can enter frequently used additional data, such as information on an order, different payment, or cost assignment alongside the time data, in one line.

  They are also suitable in cases where clock times are not important, such as when you view one or more weeks, and when you enter time data as a number of hours, without clock times.

  For more information, see:

- Multi-Day View [Page 846]
- Multi-Person View [Page 848]
- One-Day View [Page 850]
- Calendar views

  The graphic calendar views provide you with a quick overview of employees' time data. The focus of the daily and weekly calendars is the clock times of time entries, including partial-day time entries, whereas the monthly and annual calendars focus on a quick overview of whole-day information.

  For more information, see:

- Annual Calendar [Page 851]
- Monthly Calendar [Page 852]
- Weekly Calendar [Page 853]
- One-Day Calendar [Page 854]

Multi-Day View

Definition

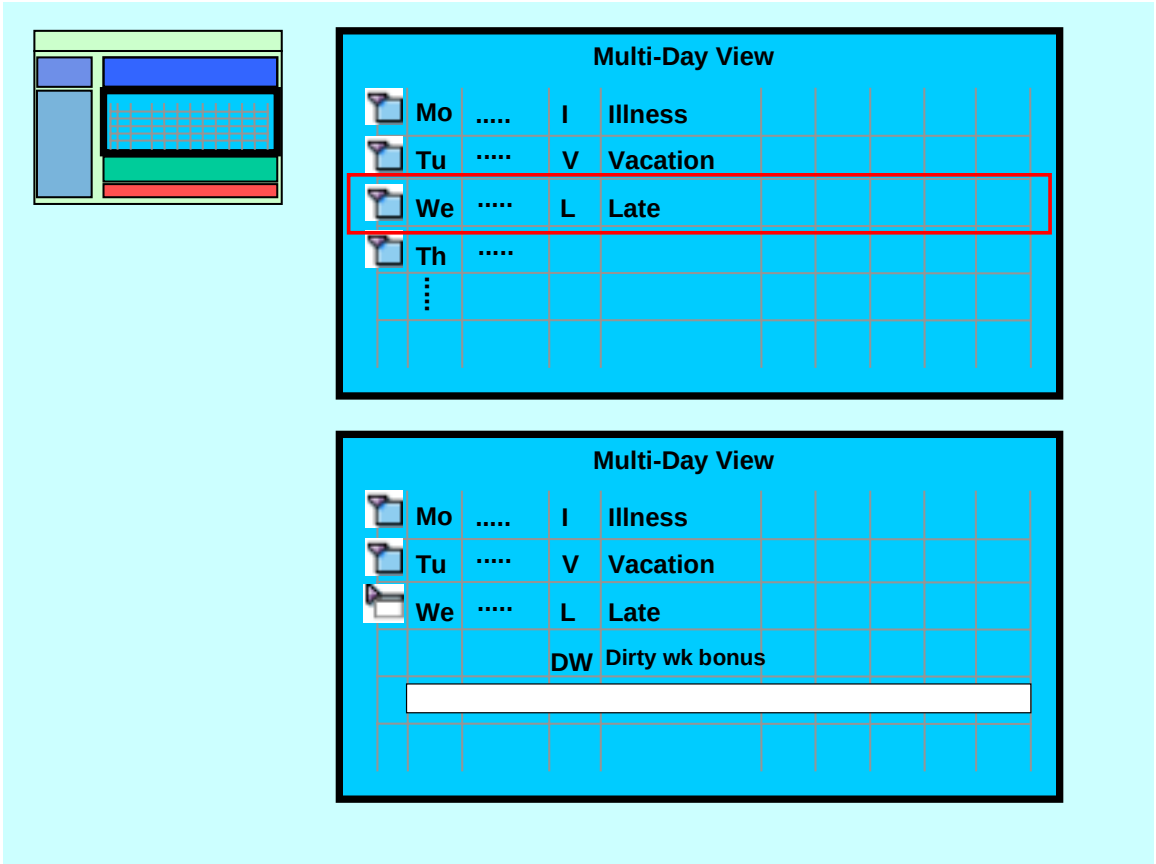
The *Multi-Day View* enables you to maintain time data for more than one day for one selected employee. You process time data in a list-oriented view.

Use

You are recommended to use the multi-day view as your main tool for recording and processing time data if you

- Want to type in several time entries consecutively for one employee
- Enter a lot of time data with account assignments to orders and projects
- Often perform activity allocations and cost assignments
- Frequently enter bonuses
- Regularly (once a week, for example) check whether an employee's time data is accurate and complete

Structure



There are two tabs contained in the standard SAP System for use in the *Multi-Day View*.

- Time Data

  In the *Time Data* tab page, you can administrate all Time Management infotypes that are supported by the *Time Manager's Workplace.* Data from the *Time Events* infotype (2011) is displayed on this tab as time pairs, however, they are for display only. Because the entries are displayed in pairs, you can quickly recognize the time periods and spot any missing postings.

- Time Events

  In the *Time Events* tab page, you can process time postings from front-end time recording subsystems (HR-PDC interface). They are stored in the *Time Events* infotype (2011) and in the TEVEN table.

You can use the calendar [Page 827] function to select the period you require. You define the initial period for accessing the multi-day view in Customizing.

Integration

The standard SAP System contains the *Multi-Day View* for use in both *Time Data Maintenance* as well as *Message Processing* tasks.

See also:

Processing Time Data in List-Oriented Views [Page 866]

Multi-Person View

Definition

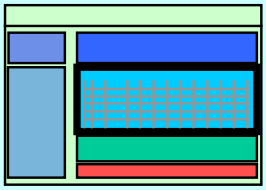
The *Multi-Person View* enables you to maintain time data for more than one employee. You can see an overview of all time data for the day selected in the calendar [Page 827] for all of the employees assigned to you. You process time data in a list-oriented view.

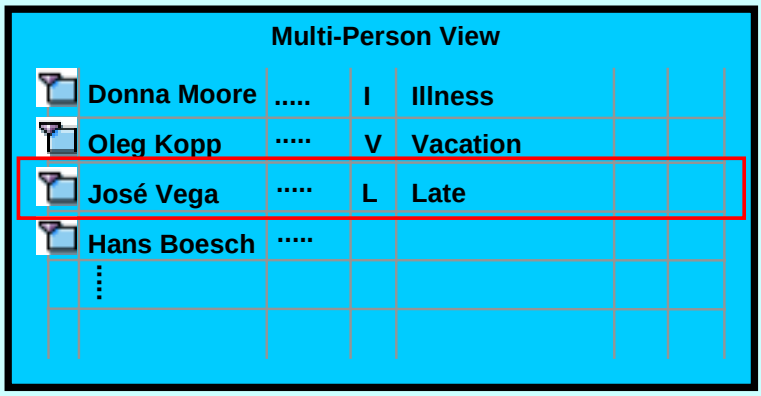
Use

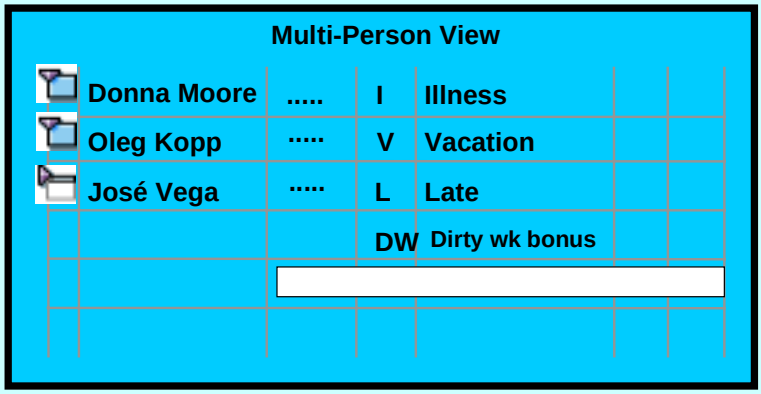
You are recommended to use the multi-person view for recording and processing time data if you

- Want to enter the same data for several employees at the same time, such as a bonus
- Enter a lot of time data with account assignments to orders and projects
- Often perform activity allocations and cost assignments
- Want to check whether the time data of the employee group assigned to you is accurate and complete on a particular day

Structure







You want to select the employees for whom you want to enter time data on a selected day using the Employee List [Page 839]. Select your employees and choose  *Copy selected records*. The employees are then displayed with all of their time data for that day in the *Time Data* screen area.

Integration

The *Multi-Person View* in the standard SAP System contains the *Time Data Maintenance* task.

See also:

Processing Time Data in List-Oriented Views [Page 866]

One-Day View

Definition

The one-day view enables you to process time data for one employee for one day. You can see an overview of all time data for the day selected in the calendar [Page 827] for one employee. You process time data in a list-oriented view.

Use

You are recommended to use the one-day view for recording and processing time data if you

- Enter a lot of time data with account assignments to orders and projects
- Often perform activity allocations and cost assignments
- Frequently enter bonuses

for one employee.

In practice, you are unlikely to use the one-day view as frequently as the other views, since you cannot see the relationship between that day and the previous or following day (such as is the case with a previous-day indicator).

Integration

In the standard SAP System, the *One-Day View* is used in the *Time Data Maintenance* function.

See also:

Processing Time Data in List-Oriented Views [Page 866]

Annual Calendar

Definition

The annual calendar is a color graphic layout of one employee's time data over one calendar year or for several selected months. It provides a complete overview of the position and frequency of whole-day and several-day time entries such as shifts, leave, and illness.

Use

The annual calendar is particularly useful for processing time data if

- You want an initial navigation view with as wide an overview as possible.

  Because time entries are displayed in different colors, this view is useful as an initial navigation view or search help. You can quickly find information relevant for time management, even if you do not know exactly where to look. You can then go directly to the relevant daily or weekly view.

- You want an overview of several-day time entries

  You can use the annual calendar as a record of absence to evaluate a year. The calendar enables you to have a quick overview of the course of time entries and to check that they are complete. You can quickly identify significant deviations to the work schedule that caused an employee to be unavailable. The relationship of particular absences to one another, for example, also becomes apparent.

- Your employees work irregular hours

  The annual calendar provides a quick overview of the sequence of shifts for employees with irregular work schedules.

See also:

Processing Time Data in Calendar Views [Page 870]

Monthly Calendar

Definition

The monthly calendar is a color graphic layout of one employee's time data over one calendar month or for several selected weeks. It enables you to quickly classify an employee's several-day, whole-day, and partial-day time information for each day.

Use

The monthly calendar is particularly useful for entering and processing time data if you want a quick overview of an employee's time entries. Because time entries are displayed in different colors, this view is an ideal initial view for time administrators to search for and quickly find a specific time entry. You can enter and process all of an employee's time data for a long period on one screen.

See also:

Processing Time Data in Calendar Views [Page 870]

Weekly Calendar

Definition

The weekly calendar is a color graphic display of one employee's time data for one or more weeks. It provides a very good overview of the clock times of whole-day and partial-day time data.

Use

You are recommended to use the weekly calendar as your main tool for recording and processing time data if

- You want a quick overview of the clock times of partial-day time entries, in particular if you record time events
- In your enterprise, the time entry mostly consists of only the time data ID, that is, you seldom enter account assignments for orders and projects or perform activity allocations and cost assignments.

The weekly calendar makes it easy for you to identify gaps or overlaps in times such as time postings and time entries. Overlapping time entries are displayed side by side, which means that you can identify competing time information more easily than in the multi-day view.

See also:

Processing Time Data in Calendar Views [Page 870]

One-Day Calendar

Definition

The one-day calendar is a color graphic display of one employee's time data for one day. It provides an overview of the clock times of the day's time entries.

Use

The one-day calendar enables you to view all information entered for one day. It is particularly useful for recording and processing time data when you want information on the clock times of partial-day information, in particular when you record time events. The one-day calendar makes it easy for you to identify gaps or overlaps in times such as time postings and time entries. Colliding time entries are displayed side by side, which means that you can identify competing time information more easily than in the *One-Day View*.

See also:

Processing Time Data in Calendar Views [Page 870]

Details Screen Area

Definition

In the *Details* screen area, you can further specify your time data. In it, you can store detailed information on a time entry or record time data spanning more than one day.

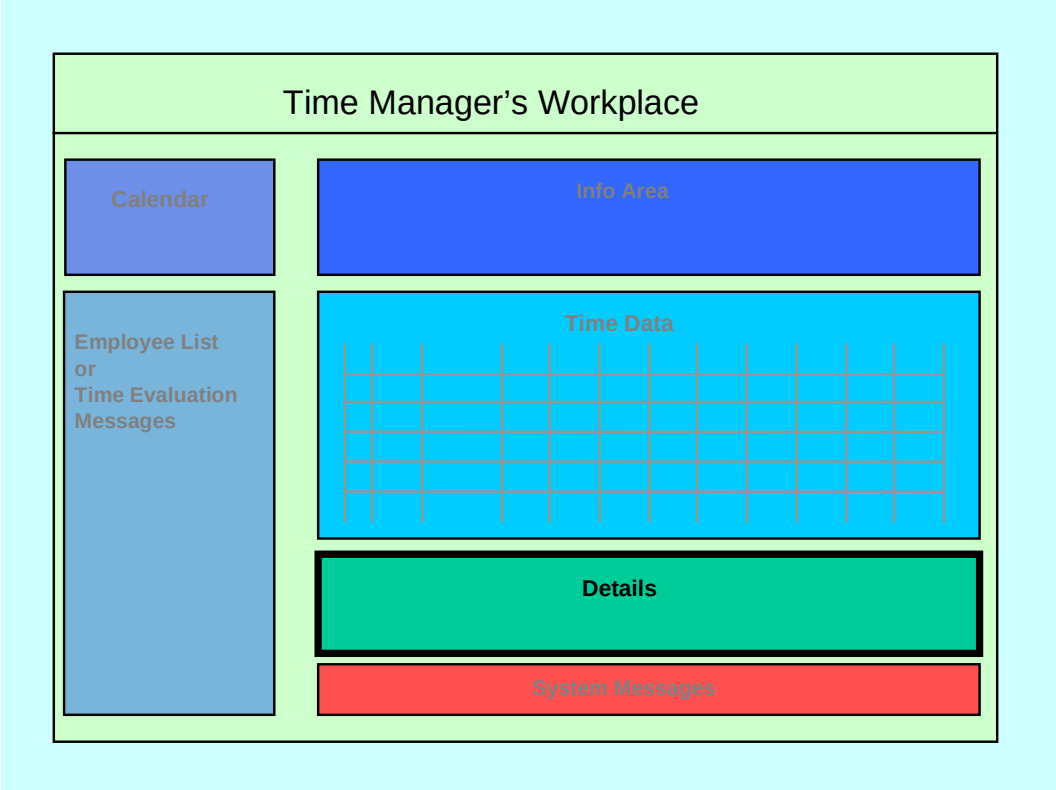
Use

The *Details* screen area performs different functions depending on whether you work with list-oriented views or calendar views:

- In list-oriented views, you use the *Details* screen area to store details that are seldom required. Examples of such information are data on sick pay or different payments.
- In calendar-oriented views, you use the *Details* screen are to store all detailed information on a time entry.

Time entries spanning more than one day can be recorded only in the *Details* screen area. For more information, see Processing Several-Day Time Entries [Page 864].

Structure



- When you select the detail screen for a time entry, the system calls the fields and tab pages required for this time entry. For example, the system displays different tab pages and fields for the time data ID *V* (Vacation) than for *ILL* (Illness).

Details Screen Area

- If you show details for a blank row in the *Time Data* screen area, then only the left side of the *Details* screen area is ready for input. If you record the time entry using its time data ID, then the applicable tab for this type of time entry is automatically displayed.
- To indicate a time entry spanning more than one day, make the applicable entries in the appropriate date fields.

Integration

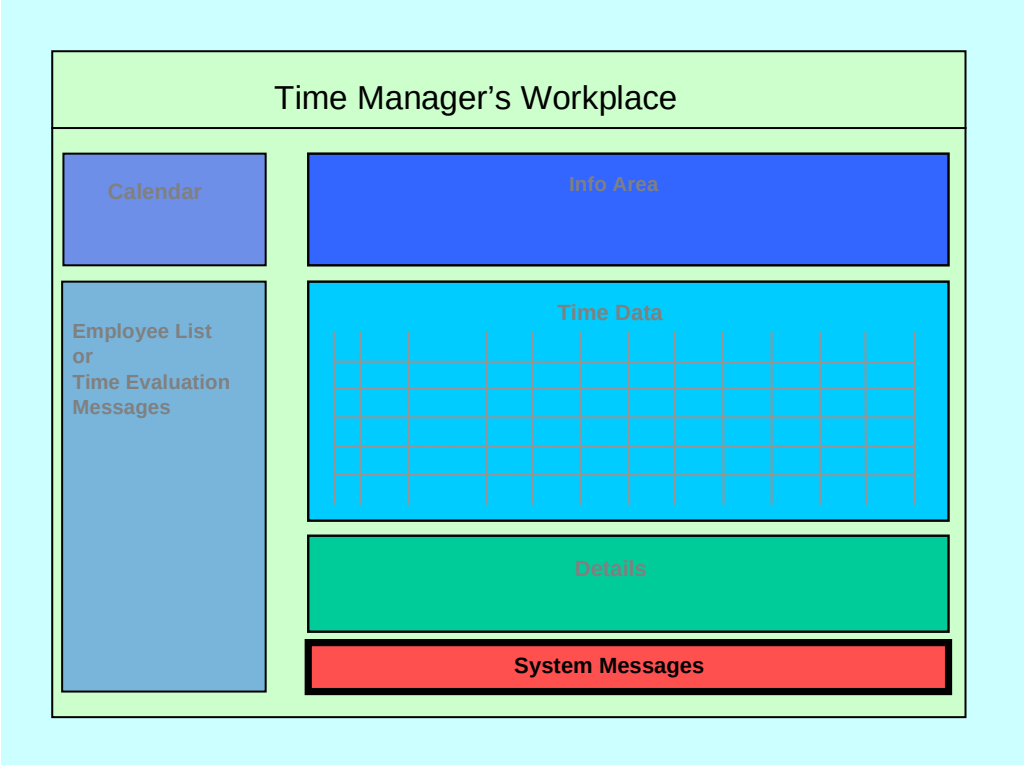
The *Details* screen area is always available when using the *Time Data* screen area.

System Messages Screen Area

Definition

This screen area displays messages that occur during time data maintenance.

Structure



The system temporarily stores the messages at first so that you can continue to work undisturbed. The system proceeds as follows, according to the seriousness of the message:

- Info and warning messages are displayed once If you continue processing, these messages are removed from the dropdown list box.
- Error messages are collected in the dropdown list box. After you have completely entered your time data, you can then go to the time data with errors. To do so, choose *Go to message source*. If the error message concerns a collision, you can display an overview of the colliding time entries by choosing *Colliding time data*.

  If you want to read the text belonging to a message, choose *Message text*.

Time Data Maintenance

Use

The *Time Data Maintenance* function was designed for decentralized time administrators to enter, correct, and complete time data for the employees assigned to them.

Integration

In addition to the *Time Data Maintenance* task, the *Time Manager's Workplace* provides a *Message Processing* task.

To process messages, choose *Goto* → *Process messages*.

Features

- You enter time data using easily identifiable IDs for Time Data [Page 859]. For example, you can enter a "V" to indicate vacation or an "I" for illness. If you want to record a dirty work bonus for an employee, you can enter "DW."

  You can configure time data IDs in the IMG for *Personnel Time Management* to reflect your individual business requirements.

- To process time data, you can use various views, which are laid out according to the task at hand (for example, a week view, monthly view, multiple-employee view).
- In Customizing, you can specify for each Time Manager's Workplace *profile* the views offered to time administrators and the initial view for time data maintenance.

IDs for Time Data

Definition

A time data ID is an easily identifiable combination of letters or numbers used for time data in the SAP System.

Use

The use of time data IDs dramatically reduces data entry workload for your time administrators. Now, time administrators simply select the appropriate ID to record time data, without needing to enter an infotype and a subtype.

Structure

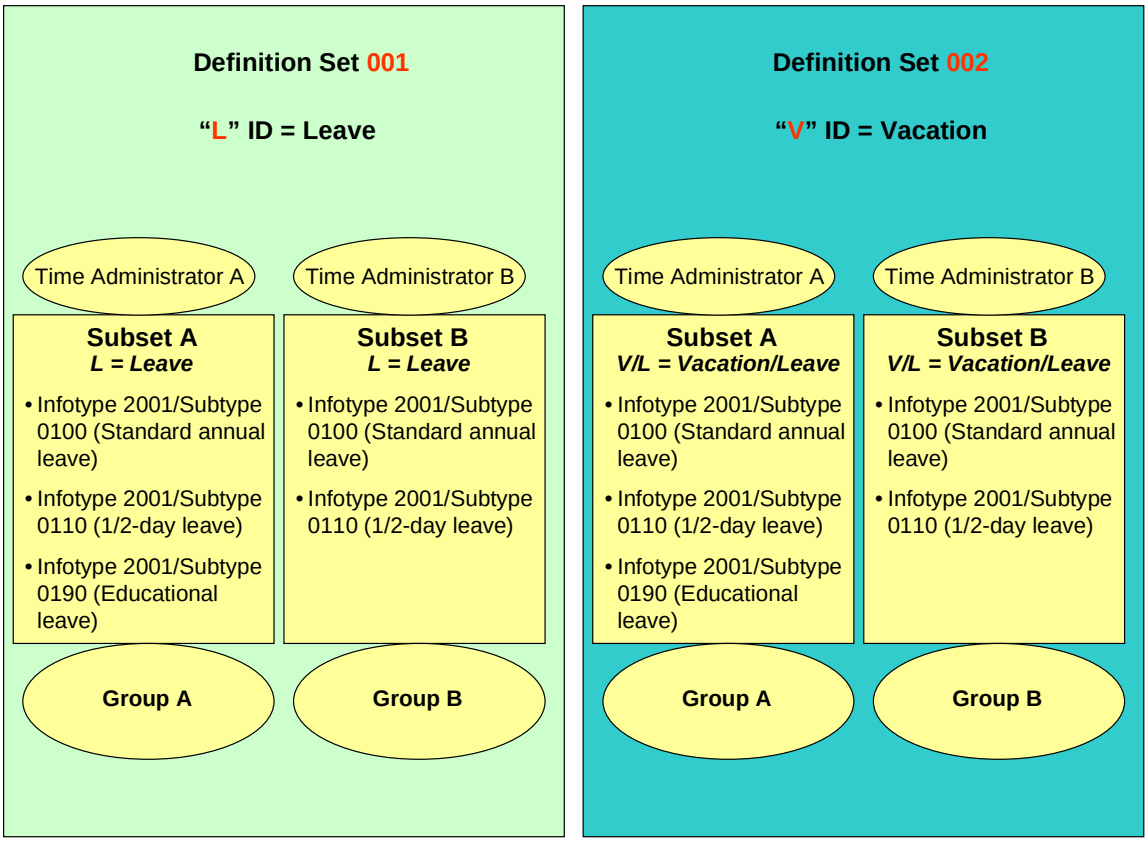
- Time data recorded using the *Maintain Time Data* transaction (PA61) in *SAP Time Management*, as well as time events recorded in an external system, can also be displayed and processed in the *Time Manager's Workplace*. The system searches for a corresponding time data ID designating this type of time entry. The system issues an ID beginning with a question mark ("?") for time entries having no corresponding ID.
- Similarly, you can also process time data recorded in the *Time Manager's Workplace* using the *Maintain Time Data* transaction (PA61).

  You do not need to assign individual IDs to each type of time entry. You only need to define special IDs for the specific types of time data entered most often by your time administrators. Time administrators can use general (generic) IDs to record other types of time data. These time entries are usually specified further in the Details Area [Page 855].
- Furthermore, time data IDs do not need to be defined to apply throughout your entire enterprise. You can define various definition sets [Ext.] for individual enterprise areas to take into account your enterprise structure or different languages. You can then create different IDs for individual enterprise areas.
- You can define any number of subsets for a definition set. In this way, you can target the specific use of IDs throughout the enterprise. For example, you want the same IDs to be valid for all of the time administrators in your enterprise. You create an applicable definition set. However, not every time administrator requires the same IDs to maintain their respective time data. You subdivide the definition sets into subsets, and then assign an appropriate subset to each time administrator.

For more information, choose *Time Manager's Workplace* → *IDs* in the IMG for *Personnel Time Management*.

Example



You create the definition set **001** for your UK subsidiary, and the definition set **002** for your US subsidiary.

For the UK definition set, "L" stands for a full- or half-day of standard annual or educational leave.

Time administrators in **Group A** need to use all three of these IDs to maintain their time data. No educational leave is permitted in **Group B**, so time administrators in this group do not use the specification "educational leave." You create subset A for Group A, and subset B for Group B.

You proceed similarly for your US subsidiary, however, you use the ID "V/L" for vacation/leave.

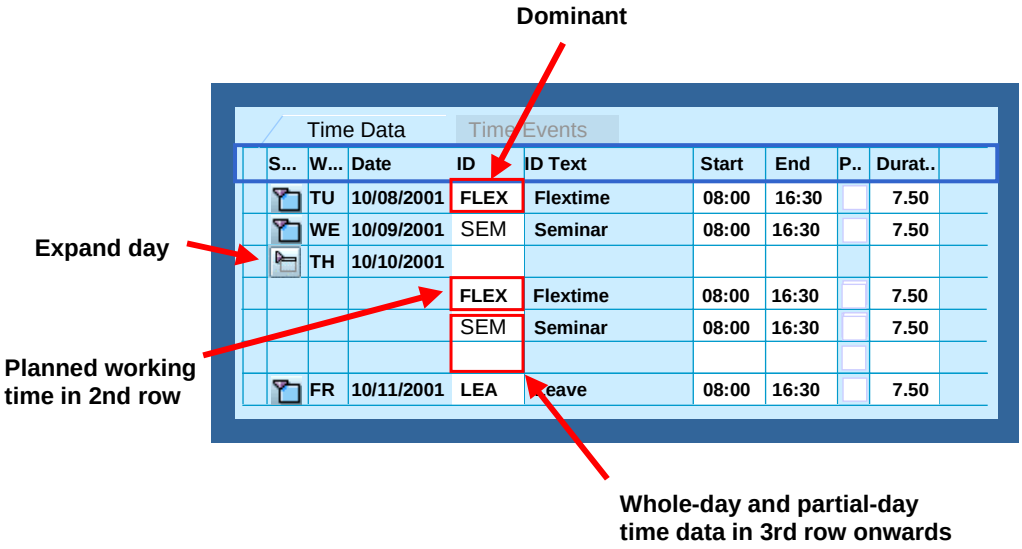
Layout of a Day's Information

Use

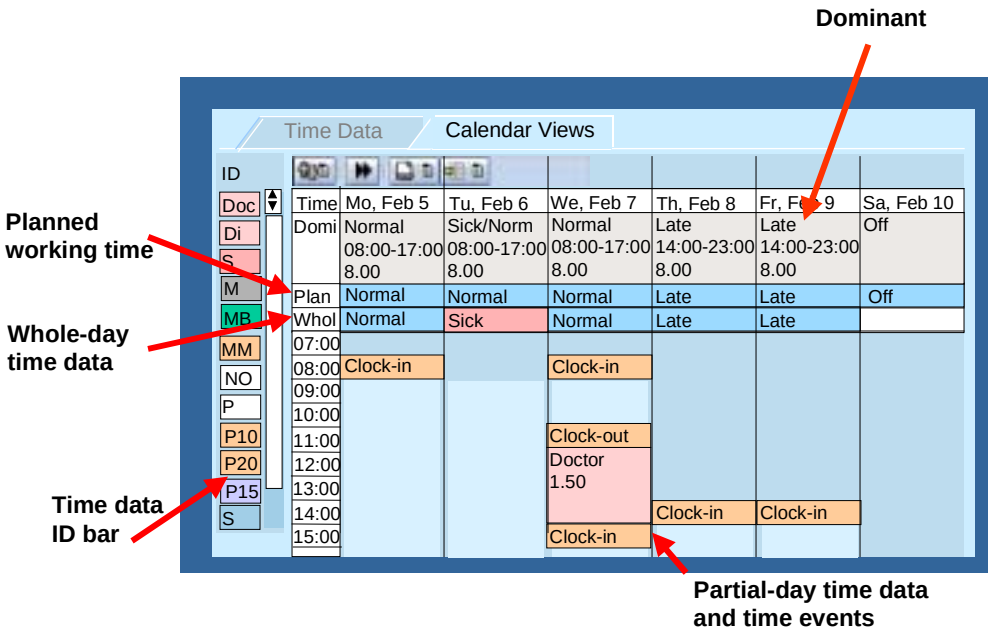
The *Time Manager's Workplace* enables you to view all time information required for evaluating a day at a glance. The information for the day is divided into various categories. This ensures that the most important information for the day, the planned specifications, and additional time entries are always displayed in the same position in the time data maintenance views.

Layout of a Day's Information

Layout of Time Data in the Multi-Day View



Layout of Time Data in the Weekly Calendar



Features

You process the information for a day in the following categories:

- Dominant: The most important item of information for that day is displayed in the dominant line. This enables you to determine an employee's availability at a glance. The dominant always represents whole-day information.

  In general, the valid personal work schedule for this day is displayed as the dominant. If, however, an illness or leave record exists for this day, the applicable time data ID (for example, an "I" for illness or a "V" for vacation) appears as the dominant.

  The same applies if you assign the employee a different shift: The new shift then appears in the dominant line.

- Planned working time: The employee's personal work schedule is displayed in this area. If there is currently no change to the employee's planned working time, the employee's regular work schedule is displayed.
- Time entries for the day: Whole-day or part-day time entries such as attendances and absences or employee remuneration information are displayed in this area.

The dominant is always the principal entry in all views. If a day's time entries are collapsed in the multi-person view and the multi-day view, only the dominant information is displayed. If you want to quickly enter time data in such a case, you can overwrite the dominant. When you choose ENTER, the day is expanded and the time entry is listed under the day's time entries.

Processing Several-Day Time Entries

Use

The majority of time entries recorded for employees relate to the events of one day. Some attendances or absences, however, are spread over a longer period, such as when an employee is on vacation or is sick. These attendances and absences are referred to as several-day attendances and absences.

It is particularly important that time entries relating to work incapacity are recorded as spanning several days so that HR information for subsequent illnesses or relationships of periods of work incapacity, for example, can be documented appropriately. This means that one time entry must be made for the entire period of the attendance or absence, that is, a different start and end date, rather than the time entry being entered for each individual day of the attendance or absence.

You must use only the detail screen area [Page 855] to record several-day time entries.

If you process a several-day time entry in a list-oriented view, only the current day is changed or deleted. This results in the data records for several-day time entries being split.

In the calendar views, this effect is apparent when you drag and drop a time data ID to the dominant row.

Example: You have recorded a work incapacity from February 1 through February 5. You now enter an infotype text for February 3 in the Multi-Day View. The system reacts as follows:

It generates three separate time entries from the several-day time entry and stores them in the infotype:

02/01 – 02/02 – Several-day time entry

02/03 – One-day time entry with infotype text

02/04 – 02/05 – Several-day time entry

This means that the system no longer interprets the work incapacity as a single unit. As a result, it cannot accurately process calculations for continued pay, for example.

If you assign the infotype text to the same time entry in the *Detail* screen area, the text is available on all days where the time entry applies. In addition, the several-day time entry remains intact and is not split.

See also:

Processing Several-Day Time Entries in List-Oriented Views [Page 867]

Processing Several-Day Time Entries in Calendar Views [Page 872]

Processing of Time Entries

Use

The procedure for creating, changing, and deleting time entries is different depending on whether you process time data in a list-oriented view or in a calendar view.

See also:

Views for Entering Time Data [Page 844]

Processing Time Data in List-Oriented Views

Use

List-oriented views enable you to enter large amounts of data quickly for multiple employees. They are particularly suitable if you enter a large amount of additional information such as account assignments or documents alongside the time data.

Activities

- In the dominant line, you can enter new time data by simply overwriting the previous ID. This function is particularly useful for fast entry of time data.

  If you record a partial-day time entry or do not enter availability information (such as a time transfer), the time entry is added automatically. After you choose ENTER, the day is expanded automatically so that you can check it once more.

  If, however, you overwrite availability information that affects the dominant, the existing dominant is overwritten, for example, if you enter an incapacity to work.

- When the day is expanded you can view all of the time data for that day. This option is particularly useful for viewing partial-day time data.

  You entered a dirty-work bonus for an employee for a specific day. The time data ID “DW” is displayed for the day in the expanded view.

  To expand a day, choose *Show.* To collapse it again, choose *Hide*.

- When the day is expanded, a blank line appears in which you can enter additional time data. If you use this blank line to insert new partial-day time entries, a new blank line appears when you choose ENTER so that you can add more time entries.

  Time entries that you overwrite are deleted.

- If you want to check that an employee’s time data is accurate and complete, you can expand only the days for which time entries have been recorded. To do so, choose *Display all time entries* under the time data table.

  By choosing *Show all* and *Hide all* beneath the time data table, you can open or close all selected days simultaneously.

Processing Several-Day Time Entries in List-Oriented Views

Procedure

Note the following information: Processing Several-Day Time Entries [Page 864].

Creating several-day time entries

1. Select the required period in the calendar.

   See also: Calendar Screen Area [Page 827]

2. Make sure that the cursor is not positioned on a time entry or on a line.
3. Choose *Create details*.

   The *Detail* screen area is expanded.

4. Enter the required time data ID and then choose ENTER.
5. Enter additional details for the time entry as required.
6. Choose *Hide detail area.*
7. Process any error messages as required.

Changing several-day time entries

1. Double-click on the relevant time entry in the list.

   The *Detail* screen area is expanded.

2. Make the required changes.
3. Choose *Hide detail area.*

Deleting several-day time entries

1. Double-click on the relevant time entry in the list.
2. Choose *Delete time data record*. Note that you must use the button above the detail area, not the button under the time data maintenance view.
3. Choose *Hide detail area.*

Copying and Adding Time Data in a List-Oriented View

Use

Copying a time entry enables you to:

- Quickly enter a partial-day or whole-day time entry for an employee for another day
- Reuse a partial-day or whole-day time entry you recorded for one employee
- Quickly record time entries for a whole group of employees (such as a work's assembly).

Two employees worked an entire day on a particular order. You first record the data for the first employee. You then copy the data to the other employee.

The machinery is being refitted in your department. All employees must therefore take a day of leave. You enter leave for one employee then copy and paste it for all the other employees.

Procedure

Copying a time entry to another day

1. Select the line you want to copy.
2. Choose *Copy*.

   The selected time entry is saved to the clipboard.
3. Find the position where you want to add the record you have copied. If you want to copy the time entry for another employee, go to the other employee's time data.
4. If you want to overwrite the existing time entry in the row, select the row. If you want to insert the time entry you copied, position the cursor on the row.

   If you copy a dominant (availability information for the day) you can enter this information only in a dominant row. Since there can be only one dominant for the day, the previous dominant is automatically deleted.
5. Choose *Insert*.

Result: The time entry is inserted. If you selected a row containing data, the previous time entry is deleted.

Copying a time entry and inserting it over several days or multiple employees

1. Select the line you want to copy.
2. Choose *Copy*.

   The selected time entry is saved to the clipboard.
3. Find the position where you want to add the record you have copied. If required, switch views – for example, if you want to insert a time entry for several employees.
4. Choose *All* (Insert for all days/every person).

Result: The time entry is inserted as required.

Processing Time Data in Calendar Views

Use

The graphic-oriented calendar views contain many functions for processing time data quickly that are familiar from PC applications

Prerequisites

You have made the Customizing settings required for the calendar views in the Implementation Guide for Personnel Time Management.

Features

- You can customize specific colors for the time data IDs permitted for a *Time Manager's Workplace* profile. You can also have IDs representing similar business situations displayed in the same color or a similar color so that time administrators can analyze an employee's time data at a glance.
- In addition to the color aid, the ID itself is also displayed in the field to indicate the exact nature of a time entry.
- The color IDs are listed in a key in a column next to the calendar view. You can drag and drop time data IDs from the column into the calendar. To do so, click on the ID and, while holding down the mouse button, drag it to the required position in the calendar view.

  If you drag an ID to the dominant line, the system reacts as follows, depending on the time entry:

- The dominant is overwritten, in the case of absences, for example.
- A whole-day record is generated – for example, a record containing the number of planned hours for the day in the case of employee remuneration information.

  Alternatively, you can select a day in the *calendar* screen area and double-click on a time data ID to record a partial-day or whole-day time entry.

- To enter whole-day or partial-day information, double-click on a day or blank line. The detail view is automatically expanded. In it, you enter information such as account assignment data to specify the time entry.
- To change an existing time entry or planned specification, click on the field containing the relevant time data ID. The detail area is automatically expanded for you to make changes.
- To enter information for a several-day entry, double-click on a day or a blank line. You can enter the appropriate period in the detail view. For more information, see Processing Several-Day Time Entries [Page 867].
- If you accidentally create a time entry for the wrong day, you can move it by simply dragging and dropping it to the correct position. The same applies to several-day time entries.
- You can also use all the functions for creating, deleting time entries and so on that are available in the list-oriented views. This enables you to enter recurring time entries quickly and easily using the copy function, in particular in the annual and monthly calendar, for example.

  In the calendar views, you can also copy and delete several-day time entries.

- When you select a period in the *Calendar* screen area, the system automatically chooses the appropriate view. If, for example, you click on a single day in the calendar, the system displays the daily calendar view.
- To switch between the various calendar views, you can:
- Click on the left of the *Change view* button to switch to the next calendar view up, for example, from the weekly calendar to the monthly calendar
- Click on the right of the *Change view* button and select the calendar view you want
- Double-click to go to the next level of detail. Depending on the calendar view, you click on the day, calendar week, or month to access the more detailed view.

You are in the annual calendar and want to go to the monthly view. Double-click on the name of the month.

Processing Several-Day Time Entries in Calendar Views

Procedure

Note the following information: Processing Several-Day Time Entries [Page 864]

Creating several-day time entries

1. In the *Calendar* screen area, select the required period.
2. Choose *Create*.

   The detail area is expanded.
3. Enter the time data ID in the detail area.
4. Choose ENTER.
5. If required, enter additional data for the time entry.
6. Choose *Hide detail area.*
7. Process any error messages as required.

Changing several-day time entries

1. Double-click the required time entry in the calendar.

   The detail area is expanded.
2. Make the required changes.
3. Choose *Hide detail area.*

Deleting several-day time entries

1. Double-click the required time entry in the calendar.
2. Choose *Delete time data record*. Note that you must use the button above the detail area, not the button above the calendar view.
3. Choose *Hide detail area.*

Alternatively, you can select the time entry in the calendar view and choose *Delete time data record.* If you choose this method, ensure that you select the several-day time entry and not the dominant information.

Message Processing

Use

You can check certain situations such as working time collisions and time account balances in time evaluation. Time evaluation produces messages in addition to a log.

The *Message Processing* task in the *Time Manager's Workplace* is a comprehensive tool for both evaluating messages and reprocessing them.

Messages are viewed and processed by time administrators after time evaluation is run. In this way, time evaluation messages help to evaluate time data recorded. Sometimes all you need is one message to determine what happened for an entire day. In other cases, however, only the appearance of several messages enables you to estimate the entire day.

For more information on messages generated in time evaluation, see Output Messages [Page 493].

Features

- Message processing is integrated in the *Time Manager's Workplace*. You use all of the same user interfaces and functions for message processing available for maintaining time data in the *Time Manager's Workplace*.
- To evaluate a message, you can see an overview of all time data for one day, the previous day, or the following day. Essential time data and time balances can be viewed in info columns provided for the message.
- You can switch between the *Employee View* and the *Message View* during message processing. In the *Message View*, you can group together messages into message functional areas that require similar processing or deal with the same business-related topic.
- Each message category has a different icon. From this icon, you can see at a glance whether a note, info message, or error message was issued.
- You can confirm messages after you acknowledge their receipt. These messages then disappear from the message list.

Example: Message Processing

Thor Nielson is a supervisor in a factory. He is responsible for entering and maintaining time and labor data for the employees assigned to him. His group contains about 20 employees. Employees enter their clock-in/clock-out times using time recording terminals.

Time evaluation runs overnight. The following morning, Thor Nielsen processes any messages created for his employees during time evaluation. On average, ten messages are generated each night by time evaluation. Typically, only one message exists for the majority of his employees, usually a message concerning missing time events. However, the system has created several messages for some of his other employees. These messages concern collisions with working time provisions. Most messages concern data from the last day before a nightly time evaluation. Messages concerning other days in the past exist for some of his employees.

To process the messages quickly, Thor Nielson calls the *Time Manager's Workplace*. Depending on his user profile, Thor Nielson can call up the TMW, specifically customized to deal with the tasks he must complete. He prefers working with a message-oriented view of his messages.

Thor Nielson has only three messages for this particular day.

Thor Nielson's Group	Messages
Core Time Violation	2
Lateness	1
Unapproved overtime	1
Missing Time Events	1

Two messages are grouped together under the *Working Time Collisions* message functional area. These messages are processed in the same manner. They do not cause time evaluation to be terminated, but are simply notes and information messages.

An additional message concerns a missing time event. Since all messages of this type can be processed in the same manner, they are grouped together under one message functional area with the same processing instructions.

The supervisor processes the missing time event first:

Category	Status	Employee	Date	Message Text	Additional info
Termination		Paul Meyer	02.11.2000	Clock-in posting	

This message can be used to determine the situation for the employee Paul Meyer. From this message text, Thor Nielson can see that Paul Meyer forgot to make a clock-in posting. Since Thor Nielson did not receive any notice stating otherwise, he assumes that Paul Meyer appeared on time for work on that morning. He sees the start of working time for the employee from the dominant for the day. He accesses the *Time Events* tab in the *One-Day View* and enters the time event.

He then processes the messages from the *Working Time Collisions* message functional area.

Category	Status	Employee	Date	Message Text	Additional info
Information		Sarah Forst	02.11.2000	Late for start of work	Core time violation 0.25 hours
Information		Sarah Forst	02.11.2000	Unapproved overtime	Overtime 0.50 hours

Thor Nielsen must read both of the messages for employee Sarah Forst to process them correctly. Sarah Forst came late to work on this day. She worked longer on the same day to make up the time.

Thor Nielson approved the additional quarter hour that Sarah Forst worked. He activates the checkbox for overtime approval in the one-day view. Then, he sets the status of both messages to *Completed* in the *Status* field. To remove the messages from the list, he chooses *Confirm completed messages*.

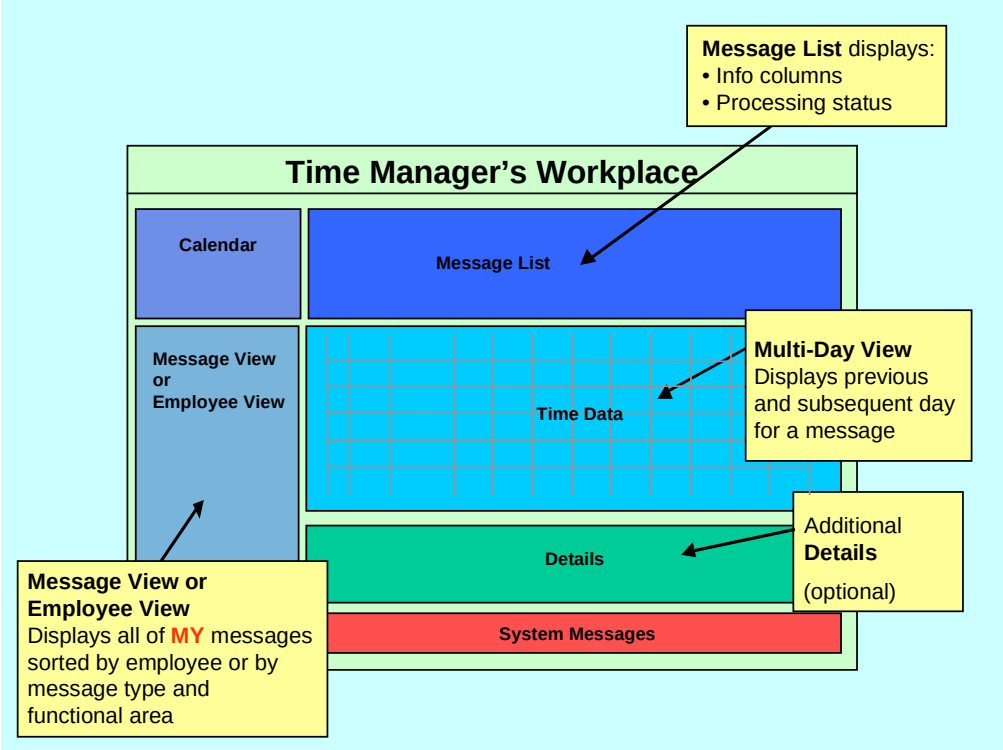
He then restarts time evaluation. The message list is now empty.

Message View and Employee View for Message Processing

Use

In message processing, you receive time evaluation messages describing standard system statuses. These standard situations can be dealt with quickly and routinely. Other messages, however, require a complex employee-related analysis of the subject.

Different message views are available for these two situations: a message-oriented view or an employee-oriented view. The view you select determines how the messages appear in the *Time Manager's Workplace* on the bottom left-hand side of the screen, or how the message list is structured.



Features

- **Message-oriented processing** enables you to quickly handle messages that do not require a great amount of effort or research. The list of the tasks to be completed is immediately reduced to those that require a more in-depth analysis or necessitate asking the employee directly.

  The ***Message View*** provides you with a list of all messages to be processed. You can see how many messages were created. Messages already processed are indicated by a green checkmark.

  You can group message types together into message functional areas [Page 878] in Customizing. These messages are displayed under the functional area node in the

message view. A feature in this view occurs if the message functional area is assigned its own processing method [Page 880]. In this case, the individual message types are not listed in the message view, as the assumption is made that these messages will be processed almost identically.

When you select message functional areas or individual messages, all related messages are displayed in the message list. The list is sorted according to employees. An icon is displayed in the *Additional messages exists* field when additional messages exist for a particular employee. By choosing the applicable icon, all additional messages for this employee appear.

- **Employee-based processing** enables you to focus on all of the messages that were created for one employee. In this way, you can see any related, dependent, or subsequent errors that can be processed at the same time.

  The ***Employee View*** provides a list of all employees for whom messages exist to be processed. Details are displayed for each employee so that he or she can be easily identified. Details can include any relevant HR master data such as cost center, as well as any time-related data such as the employee's work schedule rule.

  To define the fields used here to display information, complete the Customizing steps under *Personnel Time Management* → *Time Manager's Workplace* → *Screen Areas* → *Employee List* in the IMG.

  If you choose one or more employees, then all of the messages created for these selected employees are displayed in the employee list.

Message Functional Areas

Definition

Message functional areas contain groups of time evaluation messages. They enable you to categorize messages and manage message processing.

Use

Time evaluation can generate a large amount of messages. Sometimes the list of messages can be too long to manage. When Customizing the *Time Manager's Workplace*, you can group together message types into message functional areas to suit your business requirements. You can structure how the message list is displayed and the messages are processed. Message functional areas can be created using the following criteria:

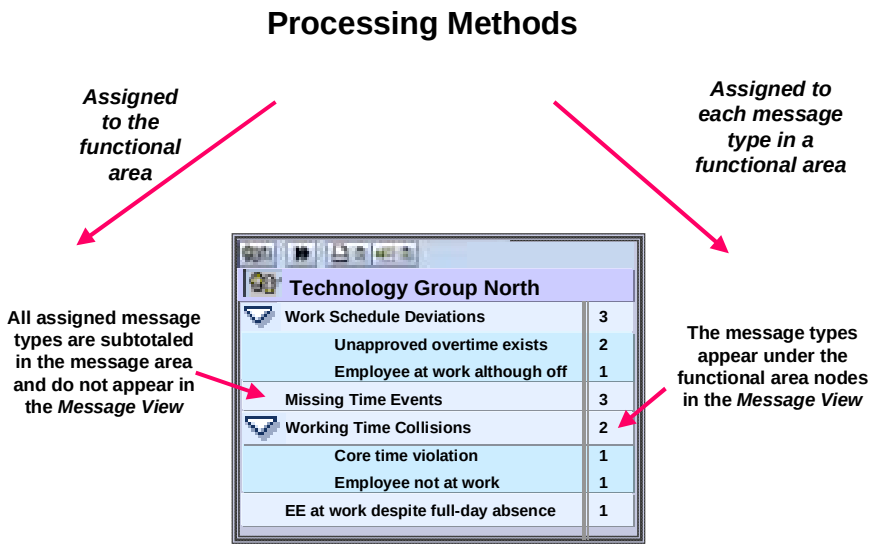
- Many message types describe similar business-related situations. Grouping together message types can streamline message processing as the time administrator handles related topics at one time.
- There are many types of messages requiring identical or similar processing methods, such as those concerning incorrect or missing time events. Grouping these message types together enables the time administrator to use the same steps and screens, processing these messages systematically.
- Messages concerning serious errors in time evaluation and additional messages for which accurate time evaluation results are not relevant. Grouping together messages according to their priority or category enables time administrators to efficiently process errors. Time administrators can process notes and info messages later.

Message functional areas describing similar business-related situations:

- Working time collisions
- Deviations from the work schedule
- Checking time accounts

Structure

All message types related to the message types assigned to a functional area are displayed under the corresponding message functional area in the message view. The message view is set up based on whether a processing method is assigned to a message type or a functional area.



- If the message types have their own processing methods [Page 880], then they are displayed under the message functional area node.

  In this case, you can display all messages in one functional area or the individual messages. To do so, select a functional area or a message in the message list.

- If the message functional area has a processing method, then all of the messages are summarized here.

  The messages no longer appear in the message view. Always copy the entire message functional area to the message list.

You do not need to assign all of the message types to a message functional area. Some messages require such special processing methods that they can be regarded as special cases. These types are messages to not need to be assigned to a message functional area. These messages are displayed in the message view on the same hierarchy level as the message functional areas.

Processing Methods

Definition

A processing method contains specific contextual information and solution strategies to help streamline the processing of time evaluation messages.

Use

A certain processing method is required to handle every message. For example, time administrators need to see certain contextual information related to the message. Time administrators also process similar time data at one time.

- Time data must be locked when attendance and absence reasons are processed
- Missing time events must be entered in the system

A specific processing method can be assigned to each message type or message functional area in the *Time Manager's Workplace*. If a message functional area has a processing method assigned, and then all of the message types related to it are summarized under the message functional area.

Up until now, only one processing method for displaying contextual information existed. Additional screen options will be developed for future SAP System releases.

Structure

Info Columns

Administrators often require specific contextual information such as the status of particular time accounts or the employee's relevant work schedule to be able to analyze messages.

To quickly process messages, you can display important contextual information for the message in the message list itself. This contextual information is provided for either a message type or a message functional area. If messages grouped under one message functional area have different contextual information, then the relevant information is grouped together in a concatenated field.

For more information, see the IMG steps under *Personnel Time Management* → *Time Manager's Workplace* → *Setting Up Message Processing.*

Individual Functions in Message Processing

Use

Message processing contains a number of individual functions in the *Time Manager's Workplace* to assist your time administrators when processing time evaluation messages.

Features

Set Processing Status

You can indicate already processed messages in the message list. This function is helpful if you tent to experience frequent interruptions during message processing. You can immediately see what messages were already processed.

To do so, set the message to *Completed* in the *Status* field. The message is now indicated by a green checkmark.

Confirm Messages

Many time administrators like to view the progress of their work in the message list. In the *Time Manager's Workplace*, you can work through the message list and confirm the messages you have already processed. Messages then disappear from the message list. Confirmed messages are also not displayed when message processing is next accessed.

Incomplete messages appear in the message list only after time evaluation is run again.

To activate the message confirmation option, proceed as follows:

1. Set the status of the messages to *Completed*.
2. Choose *Confirm completed messages*.

Re-Check Message Processing

Typically, time administrators want to re-check to make sure that all messages were processed successfully.

For this reason, you can start time evaluation directly from message processing. Time evaluation is run for all employees for whom messages exist in the message list.

Messages From Date

In the *Messages from Date* function, you can display all notes and info messages created in the past. Here you can also display notes and info messages already confirmed.

To do so, select a message. All messages of this type from the date entered are displayed for the selected employee. Choose the *Additional messages exist* icon to display all of the other messages created in time evaluation from the selected date for this employee.

Print Message Lists

Some messages require that you speak directly with the employee in question. To facilitate processing for these messages, you can print out the message view or the employee view along with the message list.

Individual Functions in Message Processing

Message Details

In addition to the employee and day information related to a message, time evaluation messages can contain information about the *message type, category of message type*, *message category*, as well as *processing status*. You can display a detailed overview of the messages in the message list. Here you can determine whether a message was created during pair formation or by an operation in time evaluation.

Authorizations in the Time Manager's Workplace

Your employees do not need any additional authorizations to maintain time data and process messages in the *Time Manager's Workplace*. Your employees only require the general authorizations necessary for *Time Data Recording and Administration* and *Time Evaluation*.

For more information, see the *Authorizations* section in the Implementation Guide (IMG) for *Personnel Time Management*.

Read and Change Authorizations for Infotypes

Read Authorization for Infotypes

Read authorization requires the technical characteristic "R" (for Read). If the time administrator does not have any read authorization for the corresponding infotypes or subtypes, then the system displays four asterisks (****) instead of the IDs.

Change Authorization for Infotypes

In the *Time Manager's Workplace*, the technical specifications for change authorizations are interpreted as follows:

Specifications	Meaning	Interpretation in TMW
W	Update, Write (contains E, S, and D)	Creates, change, delete, lock, and unlock data records
E	Lock, Write	Create new and change existing records; cannot delete
S	Lock, Write	Create new and change existing records; cannot delete records; unlock locked records (as long as user is not the last person who changed record)
D	Maintain lock indicator	Lock and unlock records
M	Display matchcode	Not relevant

When setting up the *Time Manager's Workplace,* make sure that your *definition subsets* agree with the time data IDs used in the infotype authorizations for each user.

Authorizations are first checked in the *Time Manager's Workplace* when you choose **ENTER** or when saving the TMW. The check does not take place at the start of the activity, as is the case when using the *Maintain Time Data* transaction (PA61). Users can enter a significant amount of data before running the check.

If a time administrator does not have any change authorization for the corresponding infotypes, he or she cannot save the data for the employee for whom an infotype record was entered.

In this case, the following results:

- When a time administrator creates an infotype record for which he or she does not have any authorization, the system cannot save the record. The record must be deleted from the list.

Authorizations in the Time Manager's Workplace

- When a time administrator creates an infotype record for which no authorization exists, he or she cannot save the record. The previous status must be reinstated.

Read and Change Authorizations for Infotype Text

Authorization for the **HR Cluster TX: Infotype Text** is queried here.

If a time administrator has no read authorization for the infotype text, he or she cannot read these texts on the tabs.

If a time administrator has read, but no change authorization for infotype text, he or she can see the tabs in the *Details* view but cannot change any of the infotype texts. Changing additional data is only permitted if the time administrator has the applicable authorization.

Tools

Purpose

The *Tools* component provides Personnel Time Management tools that are only used in Human Resources, that is, they are not R/3 Basis functions.

Implementation Considerations

This component does not affect implementation projects. You can still use the tools even if you do not select this component.

Before you start to make Customizing settings for *Payroll, Time Evaluation*, and particular areas of *Personnel Administration* and *Time Data Recording and Administration,* you should familiarize yourself with the tools and their special Customizing options.

For more information on the Tools in Human Resources, see HR - Tools. [Ext.]

Features

- Personnel calculation schemas and rules are central tools that are used for implementing *Time Evaluation* The following editors are available for Customizing:
- Editor for personnel calculation schemas
- Editor for personnel calculation rules
- Editor for functions
- Editor for operations

  These tools are linked to their own documentation so that you can describe your own modifications and customer developments.
- The tool for features is mainly used in *Time Evaluation* and *Time Data Recording and Administration* to determine default values and select persons and report variants according to the user. An editor is available for Customizing features. It also has its own documentation.
- You can use the Interface Toolbox to transfer the results of *Time Evaluation* to a third-party payroll system.

Self-Service Applications

Definition

The Self-Service applications in *Time Management* allow employees to maintain their own data. They enable you to transfer some of the routine administrative tasks performed by your personnel department to your employees.

Process Leave Request (PA-TIM-REC)

Use

The *Leave Request* workflow enables employees to enter a leave request in the Internet/intranet themselves. It could be a request for a vacation, for example. However, processes could also be implemented with which employees inform their superiors of the fact that they are unable to work.

The workflow is only ever used in conjunction with the *Leave Request* Internet application component. If you require further information, see Leave Request [Page 908].

Structure

The leave request is subject to an approval procedure, during which the employee's superior can check the data record to see if the employee's absence can be approved according to the schedule. If the record is approved but cannot be stored (because it collides with other records in the system, for example), the administrator responsible ensures that the leave request is returned to the employee.

The advantage of this workflow is that the persons responsible for approving or checking the data are informed automatically of the request, and can approve or reject it directly. If the request is rejected, the employee is informed. He or she can then respond accordingly. He or she can cancel the leave request, or change the dates.

The leave request services offered by the system include the Cancel Leave Request [Page 893] workflow. It enables employees to:

- Cancel or partially cancel a leave request.
- Delete unprocessed leave requests and cancelations.

The *Leave Request* workflow scenario is an excellent example of how employees can be involved in maintaining their own data, and how recorded data can be checked using an integrated approval procedure.

Using & Linking to Functions (PA-TIM-REC)

Enter Leave Request

The employee uses the enterprise's Internet/intranet to enter the leave request. If the requested leave is deducted from an absence quota (such as leave entitlement), the employee can use the service to check leave information directly. The employee can inform his or her superior of the reason for the absence by entering a note.

By choosing *Submit*, the request is forwarded to the superior.

Approve or Reject Leave Request

The user defined in the organizational plan as the superior of the person who enters the leave request receives a work item in his or her Internet/intranet inbox. The work item enables the superior to approve the leave request.

By executing the work item, the superior accesses the Internet service that enables him or her to view the current leave request data.

He or she can *approve* or *reject* the request. The reason for a rejection can be stated in a note.

Leave Request Rejected

If the leave request is not approved, the person who entered it receives a work item in his or her Internet/intranet inbox stating that the request was not approved. By executing the work item, the leave request is displayed again for the employee who submitted it. He or she can change or withdraw the leave request. If a change is made, the approval procedure is restarted.

Leave Request Approved

If the leave request is approved, an absence record (infotype 2001) is created in the background with the approved data of the requested absence.

Error Handling

If the plausibility and consistency check prevents the absence record from being created in the R/3 System, an error handling work item is sent to the administrator responsible. This work item is displayed in the Internet/intranet inbox and in the R/3 System. It can only be executed from the R/3 System inbox.

By executing the work item, the administrator opens the *Absences* infotype (2001) in *Create* mode. The approved data from the leave request is available as default values.

The administrator checks the situation to determine why the absence record could not be created. He or she is supported by the error dialog of infotype 2001. If the situation can be clarified, he or she approves the leave request. If it cannot be clarified because, for example, an absence already exists in the system for the period of this leave request, he or she rejects the leave request.

Confirmation

If a leave request is successfully posted, the employee who submitted it receives a message regarding the approved absence, along with any related information.

If posting is not possible, a message is sent to the employee who submitted the leave request and his or her superior.

Workflow is complete when this message is sent.

Preparation and Customizing (PA-TIM-REC)

You can use the following workflow template to define your own process:

Workflow Template for Leave Request

Name	Task
Leave Request With HTML	WS 20000081

In addition to general customizing, which ensures that the workflow system functions correctly, customizing is also required specifically for this workflow template.

Relate System User Name to Personnel Number

To ensure that an employee can be identified in workflow, a system user name must be related to the personnel number created for him or her.

The simplest way to define this relationship is by using infotype 0105 *Communication*.

Maintain infotype 0105 *Communication* for all of the employees allowed to enter their own absence data, and for all of the persons allowed to authorize this data. The system includes subtype/communication type **0001 - system user name (SY-UNAME)** for this purpose.

If you require further information, see the *Communication* sections of the Implementation Guide for Personnel Administration.

Set Up The Organizational Plan

The absence request is made by an employee, and approved or rejected by his or her superior. This is only possible if the relationship between the employee and the superior has been defined in the organizational plan.

The standard system includes the following role templates:

Role Templates

Role 168	Superior
Role 60100010	Administrator

Using an Organizational Plan to Assign Users

To define a suitable organizational plan for the scenario, access the Implementation Guide, choose *Basis Components* → *Business Management* → *SAP Business Workflow,* and perform the *Edit Organizational Plan* step.

Cancel Leave Request (PA_TIM_REC)

Use

The *Cancel Leave Request* workflow enables employees to perform the following activities in the Internet/intranet:

- Delete leave requests and cancelations that have not been processed by the person responsible for their approval
- Cancel an approved leave request if, for example, they do not take their leave
- Partially cancel an approved leave request if, for example, they want to shorten their leave by a few days

The workflow is only ever used in conjunction with the *Cancel Leave Request* Internet application component. If you require further information, see Cancel Leave Request [Page 912].

Structure

If an employee cancels an unprocessed leave request, the workflow is concluded and the work item concerned is deleted from the inbox of the person responsible for its approval.

The cancelation of the leave request is subject to an approval procedure, during which the employee's superior checks the data record to see if the cancelation can be approved according to the schedule.

The advantage of this workflow is that the persons responsible for approving the data are informed automatically of the cancelation, and can approve or reject it directly. In the event of approval or rejection, the employee is informed automatically and can respond accordingly. He or she can withdraw or change the cancelation.

Using & Linking to Functions (PA-TIM-REC)

Deleting Unprocessed Leave Requests and Cancelations

The employee uses the enterprise's Internet/intranet to delete leave requests and cancelations that have not been processed by the person responsible for their approval.

The work item is deleted, and the workflow is complete.

Enter Cancelation of Leave Request

The employee uses the enterprise's Internet/intranet to cancel a leave request that has already been approved. To facilitate data entry, the system displays a list of all approved absences from which the employee can choose the one that is required.

He or she can cancel the leave request completely, or perform a partial cancelation. A partial cancelation is only possible if the period in question is shortened.

By choosing *Cancel*, the request is forwarded to the superior.

Approve or Reject Canceled Leave Request

The user defined in the organizational plan as the superior of the person who enters the leave request receives a work item in his or her Internet/intranet inbox. The work item enables the superior to approve the leave request.

By executing the work item, the superior accesses the Internet service that enables him or her to view the current leave request data.

He or she can *approve* or *reject* the cancelation. The reason for a rejection can be stated in a note.

Cancelation of Leave Request Rejected

If the cancelation of the leave request is not approved, the person who entered it receives a work item in his or her Internet/intranet inbox stating that the cancelation was rejected. By executing the work item, the leave request is displayed again for the employee who submitted it. He or she can change or withdraw the cancelation. If a change is made, the approval procedure is restarted.

Cancelation of Leave Request Approved

If the leave request was approved, the absence record in question (infotype 2001) is deleted in the background.

Error Handling

If the cancelation cannot be posted in the R/3 System, the administrator responsible receives an error handling work item. This work item is displayed in the Internet/intranet inbox and in the R/3 System. It can only be executed from the R/3 System inbox.

By executing the work item, the administrator opens the *Absences* infotype (2001) in *Change* mode. The approved data from the leave request is available as default values.

The administrator checks the situation to determine why the absence record could not be deleted or changed. He or she is supported by the error dialog of infotype 2001. If the situation can be

clarified, he or she approves the cancelation. If it cannot be clarified, he or she rejects the cancelation.

Confirmation

If an absence is successfully changed or deleted, the employee who submitted it receives a message regarding the approved cancelation, along with any related information.

If posting is not possible, a message is sent to the employee who submitted the absence request and his or her superior.

Workflow is complete when this message is sent.

Preparation and Customizing (PA-TIM-REC)

You can use the following workflow template to define your own process:

Workflow Template for Cancelation of Leave Request

Name	Task
Cancelation of Leave Request	WS 0100109

In addition to general customizing, which ensures that the workflow system functions correctly, customizing is also required specifically for this workflow template.

Relate System User Name to Personnel Number

To ensure that an employee can be identified in workflow, a system user name must be related to the personnel number created for him or her.

The simplest way to define this relationship is by using infotype 0105 *Communication*.

Maintain infotype 0105 *Communication* for all of the employees allowed to enter their own absence data, and for all of the persons allowed to authorize this data. The system includes subtype/communication type **0001 - system user name (SY-UNAME)** for this purpose.

If you require further information, see the *Communication* sections of the Implementation Guide for Personnel Administration.

Set Up The Organizational Plan

The absence request is made by an employee, and approved or rejected by his or her superior. This is only possible if the relationship between the employee and the superior has been defined in the organizational plan.

The standard system includes the following role templates:

Role Templates

Role 168	Superior
Role 60100010	Administrator

Using an Organizational Plan to Assign Users

To define a suitable organizational plan for the scenario, access the Implementation Guide, choose *Basis Components* → *Business Management* → *SAP Business Workflow,* and perform the *Edit Organizational Plan* step.

SAP Time Management in the Internet/Intranet

Work Schedule

Use

Employees can use this Internet Application Component (IAC) to view their own personal work schedule. This means that they can access their most current work schedule at any time. The advantages of this service include:

- Permanent overview of work schedules for employees themselves
- Quick access to up-to-date information
- Less work for administrators in shift planning departments in your company

Prerequisites

Employees can access this service without any restrictions.

They require an ESS user ID that is linked directly to their HR master data via the *Communication* infotype (0105).

Features

This service is used only to display an employee's personal work schedule. After the employee has entered his or her personnel number and password in the initial entry screen, the personal work schedule for the chosen time period appears on the screen.

Modification Options

The service name is PZ17. You can find all of the relevant data under the service name in the SAP@Web Studio [Ext.].

Displaying a Work Schedule

1. Select the time period for which you want to display a work schedule.

- To display the work schedule for the current week, select *Current week*.
- To display the work schedule for the current and following week, select *Next and current week*.
- To display the work schedule for any time period of your choice, select *Period from* and enter a start and end date.

  Note that you can display the work schedule for a maximum of 50 days. If you choose a longer period, the system issues the message *Not all the selected days can be displayed.*

2. Choose *Display report*.
3. If required, print the work schedule.

Leave Information

Use

Employees can use this Internet Application Component (IAC) to view their own leave information. It enables them to check at any time the status of their time-off entitlements and the deadline for using them.

The service offers the following advantages:

- Employees can access information about their time accounts, such as leave taken or leave remaining, whenever they want. This function enables employees to plan their future leave or find out the period in which they must use their time-off from overtime before it is forfeited, for example.
- As a result, you reduce the overall administrative workload for the HR department and time administrators.

Authorizations

The standard SAP System includes a role that contains all of the necessary authorizations. For more information, see PA-Employee Self-Service [Ext.].

Features

This service is used only to display an employee's own leave information. The information displayed relates to a specific date, absence quota, and deduction period. Employees can access the following information regarding their leave entitlement:

- Employee's total entitlement
- Entitlement already taken or remunerated
- Entitlement already requested
- Leave remaining that can be used or remunerated

Employees can use this service to check not only their current entitlement, but also a past or future entitlement. If an employee enters a future date, the system projects the entitlement for this key date and displays the result. For the system to be able to project entitlements, you must use *Time Evaluation* in your enterprise and you must have activated function QUOTA.

Modification Options

The service name is PZ09. You can find all of the relevant data under the service name in the SAP@Web Studio [Ext.].

Displaying Leave Information

1. Enter the date for which you want to display your leave information. The system standard setting is the current date.
2. Enter the types of leave you want to see.

- If you want to see all types of leave, choose *All types.*
- If you just want to see one specific type of leave, select the required type from the list.

3. Choose *Display*.

   The system lists the types of leave that you are entitled to take or to have remunerated on the date you entered.

   The following information is displayed:

   Time balance

   The name of the absence entitlement.

   Deductible to

   The date to which you can still take leave or deduct time-off entitlement.

   Entitlement

   The total entitlement available to you for a specific type of leave (such as the total entitlement of leave days per year).

   Used

   The amount of leave that you have already taken from the entitlement.

   Planned + approved

   The number of absence days or hours you have already requested for future periods.

   Note that the *Used* and *Requested* fields always refer to the key date you enter. For example, if you check your leave information while you are on leave, the number of leave days that you have used up to and including that day is displayed in the *Used* field, and the number of days you have remaining for that period of leave is displayed in the *Requested* field.

   Available balance

   The absence days or hours that have not yet been taken or requested. That is, the number of days or hours that you can still take as leave or time-off entitlement. Note the date in the *Deductible to* field.

   Unit

   Displays whether the leave entitlement is defined in hours or days.

4. If required, you can also print out this list.

Time Statement

Use

Employees can use this Internet Application Component (IAC) to display and print an overview of the time balances determined for them for each day, such as their flextime balance, any overtime they have worked, and so on.

In human resources management of the 1990s, the concept of the workplace underwent a considerable change. One of the biggest trends revolves around the question of when and where employees work. Telecommunications, virtual offices, and flexible working times have become widespread and belong increasingly to everyday life.

The *Time Statement* service enables your employees to view their personal time statement in the Internet/intranet.

Employees can use the service to check how many hours they have worked in the current month, previous month, or in any other period. Easy access to personal data supports the communication within an enterprise, without compromising on data protection.

Advantages for the employee

Employees can:

- Personally ensure that they work their required minimum hours and do not exceed the maximum hours allowed
- Calculate what they have earned up to now based on the hours they have worked
- Clarify any inconsistencies directly with the administrator responsible for them so that any necessary adjustments can be made before payroll is run

Advantages for the employer

- Regular centralized printing and distribution of time statements is no longer necessary
- Employers can be sure that employees obtain the information they need to work their required hours acceptably.

Integration

Evaluation results from *HR Time Evaluation* form the basis of this service. A time statement can only be created for an employee for times that have already been evaluated.

Time Evaluation is a subcomponent of the *HR Time Management* component (PT).

Prerequisites

Employees can access this service without any restrictions.

Employees require an ESS user ID that is linked directly to their HR master data via the Communication infotype (0105). Infotypes are maintained in the *Personnel Administration* component.

Authorizations

The standard SAP System includes a role that contains all of the necessary authorizations. For more information, see PA - Employee Self-Service [Ext.].

To ensure optimum data security, the *Internet Time Statement* service uses the data protection concept for the SAP System.

Every employee who wants to check his or her time statement must have a standard SAP user ID. To access this service, Internet users must enter their SAP user ID and password.

Standard Settings

You can use the *Communication* infotype (0105) to link an SAP user ID to a personnel number. The link between a user ID and a personnel number enables the system to find time statements.

Features

You can find a detailed description of the modification options in the Implementation Guide. Choose *Personnel Time Management* → *Time Evaluation* → *Evaluations and the Time Management Pool* → *Time Statement Form*.

Modification Options

The service name is PZ04. You can find all of the relevant data under the service name in the SAP@Web Studio [Ext.].

Displaying a Time Statement

1. Select the period for which you want to display the time statement.

- If you want to display the current month, choose *Current month.*
- If you want to display the current and last month, choose *Current and last month.*
- If you want to display a different period, choose *Period from* and enter your chosen period.

  Note that you cannot display a time statement for future periods.

2. Choose *Display report*.

   Your personal time statement for the selected period is displayed.

3. If required, print the time statement.

Internet Leave Request

Leave Request

Use

Employees can use this service to enter a leave request, or to notify their superior that they will be absent for a certain period of time, due to illness, for example. To assist users in entering data, an overview of all existing information on leave entitlements is displayed.

The leave request is submitted to the employee's superior for approval. Employees can check the status of their request.

Prerequisites

- The appropriate workflow must be set up. You can use the sample workflow 20000081 (Leave request with HTML) in the standard system.

  For more information, see Process Leave Request (PA-TIM-REC) [Page 887].

- Employees must have an SAP user that is directly linked to their SAP employee master data in the *Communication* infotype (0105).

Authorizations

The standard SAP System includes a role that contains all of the necessary authorizations.

Features

When an employee submits a leave request, a workflow is started. The leave request is routed via the integrated Internet/intranet inbox of that employee's superior, who can then either approve or reject the application.

If the leave request is approved, the record is stored in the SAP database, and the employee receives a message in his or her integrated Internet/intranet inbox. If the request is rejected, the employee receives a message.

Modification Options

The name of this service is WS20000081. You can find all of the relevant data under the service name in the SAP@Web Studio.

Create a Leave Request

1. If required, check your existing entitlements (such as your remaining leave). The *Existing entitlements* list shows how much leave entitlement you have available. Plan your leave request accordingly.

   The list displays the following information:

   Leave balance

   The name of the leave entitlement.

   Deductible to

   The date to which you can still take leave or deduct time-off entitlement.

   Entitlement

   The total entitlement available to you for a specific type of leave (such as the total entitlement of leave days per year).

   Used

   The amount of leave that you have already taken from the entitlement.

   Planned + approved

   The number of absence days or hours you have already requested for future periods.

   Note that the *Used* and *Requested* fields always refer to the key date displayed. For example, if you check your leave balance while you are on vacation, the number of days you have already taken is displayed in the *Used* field, and the number of vacation days you have remaining is displayed in the *Requested* field.

   Avail. balance

   The number of days or hours that have not yet been taken or requested. You can still take these days or hours as leave or time-off entitlement. Note the date in the *Deductible to* field.

   Unit

   Displays whether the leave entitlement is defined in hours or days.

3. Enter the absence type.
4. Enter the duration of the absence.

   Enter the start and end date of your leave. If you are requesting leave of less than one day, enter the start and end time of your absence or its duration in hours.

5. If you want the system to calculate how many hours or days of your absence entitlements will be used up by this absence choose *Calculate.*

   The *Used by this absence* field displays the number of hours or days.

6. Check that the correct approver is specified.

   If you want someone other than the specified person to approve your leave request, choose *Replace.* An additional screen appears, in which you can select a different approver.

7. If you want to attach a message to your superior, enter a note as required.

8. Choose *Submit.*

Approve a Leave Request

1. Check the leave request.
2. If required, check how much leave entitlement the employee has.

   The list displays the following information:

   Leave balance

   The name of the leave entitlement.

   Deductible to

   The date to which the employee can still take leave or deduct time-off entitlement.

   Entitlement

   The total entitlement available to an employee for a specific type of leave (such as the total entitlement of leave days per year).

   Used

   The amount of leave that the employee has already taken from the entitlement.

   Planned + approved

   The number of absence days or hours the employee has already requested for future periods.

   Avail. balance

   Displays the absence days or hours that have not yet been taken or requested. This is the number of days or hours that the employee can still take as leave or time-off entitlement. Note the date in the *Deductible to* field.

   Unit

   Displays whether the leave entitlement is defined in hours or days.
3. If required, enter a note for the employee who submitted the request.
4. To approve the leave request, choose *Approve.* To reject the absence request, choose *Reject.*

   You have approved or rejected a leave request. The person who entered the request receives notification of this in his or her inbox. If the request has been rejected, the employee can submit a new request.

Cancelling a Leave Request

Use

This service gives employees an overview of the leave requests that they have submitted. Where applicable, they can use it to:

- Cancel leave requests that have not yet been processed by the approver or requests that have already been approved.
- Withdraw a cancellation that has not yet been processed by the approver

They can cancel a leave request fully or partially, if they want to shorten a period of leave by a few days, for example. Partial cancellations can only shorten, not lengthen, a period of leave.

The cancellation of the leave request is submitted to the employee's superior for approval. Employees can check the status of their request.

Prerequisites

- The appropriate workflow must be set up. You can use the sample workflow 1000109 (Cancel absence) in the standard system.

  For more information, see Cancel a Leave Request [Page 893]

- Employees must have an SAP user that is directly linked to their SAP employee master data in the *Communication* infotype (0105).

Authorizations

The standard SAP System includes a role that contains all of the necessary authorizations.

Features

Deleting leave requests and cancellations that have not yet been processed

When an employee submits or cancels a leave request, a workflow is started. Employees can use this service to delete leave requests or cancellations that are in the Internet/intranet inbox of the approver and that have not yet been approved or rejected. The related work items are deleted in this process.

Cancelling leave requests that have already been approved

When an employee cancels an approved leave request, a workflow is started. The cancellation is automatically routed to the integrated Internet/intranet inbox of the approver, who can then either approve or reject it.

If the cancellation is approved, the corresponding absence record is deleted from the SAP database. The employee receives notification of the approval in his or her personal Internet/intranet inbox. If the cancellation is rejected, the employee receives an appropriate message.

Modification Options

The name of this service is WS01000109. You can find all of the relevant data under the service name in the SAP@Web Studio.

Leave Requests: Overview

Displaying information on the processing status of your leave requests

1. Check the processing status in the *Absences/cancellations* list.

   Entries can have the following processing statuses:

   Unprocessed: Your request has not yet been processed. You can delete the request if you want to.

   Rejected: Approval has been denied. You can process the request in your inbox.

   Accepted: The request has been accepted for processing by the approver. You cannot delete or cancel the request at this time.

   Approved: The request has been approved. You can cancel the request if you want to.

   Defective, stopped: The request cannot be processed due to a system error. Inform the person who approved the request or the system administrator. You cannot delete or cancel the request.

   Waiting: The approver has set the request to *Resubmission.* You cannot delete or cancel the request at this time.

2. If required, change the list's display period to display leave requests and cancellations submitted more than one month ago.

   To do so, enter the required date in the *Absences/Cancellations* field and choose *Display.*

Cancel a Leave Request

You can use this function to cancel a leave request fully, or partially, if you want to shorten a period of leave by a few days, for example. Partial cancellations can only shorten, not lengthen, a period of leave.

Please note that you cannot use this service to extend a period of leave. If you want to be off work for longer than originally planned, you can submit another leave request for the extra time.

To submit a new leave request, switch to the *Create Leave Request* service.

Cancelling leave with the status *Unprocessed*

1. Delete the entry by clicking on the trash can in the appropriate line.

   The corresponding absence or cancellation is then highlighted in color.

2. Choose *Delete*.

   The message *Request deleted* appears. The request is no longer displayed in the overview.

Cancelling leave with the status *Approved*

1. Click on the trash can in the appropriate line.

   Extra dialog boxes appear.

2. Enter the required information for the cancellation:

a. If you want to cancel the leave request partially, enter the period you want to cancel, that is, the period in which you will be back at work.

b. If you want to cancel the leave request completely, do not change the date.

c. If you want to choose a different approver, choose *Replace.* Enter the new approver.

d. If required, enter a note to inform the approver of the reason for the cancellation.

3. Choose *Send cancellation.*

   The message *The information was sent successfully* appears. The cancellation is forwarded to the specified approver.

Approve the Cancellation of a Leave Request

1. Check the cancellation.
2. If required, add a note to the cancellation.
3. To approve the cancellation, choose *Approve.* To reject the cancellation, choose *Reject.*

   You have approved or rejected a leave request cancellation. The person who entered the request receives notification of this in his or her inbox.