Cross-Application Time Sheet (CA-TS)

HELP.CATS

Release 4.6C

Copyright

© Copyright 2001 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft®, WINDOWS®, NT®, EXCEL®, Word®, PowerPoint® and SQL Server® are registered trademarks of
Microsoft Corporation.

IBM®, DB2®, OS/2®, DB2/6000®, Parallel Sysplex®, MVS/ESA®, RS/6000®, AIX®, S/390®, AS/400®, OS/390®, and OS/400® are registered trademarks of IBM Corporation.

ORACLE® is a registered trademark of ORACLE Corporation.

INFORMIX®-OnLine for SAP and Informix® Dynamic Server™ are registered trademarks of Informix Software Incorporated.

UNIX®, X/Open®, OSF/1®, and Motif® are registered trademarks of the Open Group.

HTML, DHTML, XML, XHTML are trademarks or registered trademarks of W3C®, World Wide Web Consortium,
Massachusetts Institute of Technology.

JAVA® is a registered trademark of Sun Microsystems, Inc.

JAVASCRIPT® is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

SAP, SAP Logo, R/2, RIVA, R/3, ABAP, SAP ArchiveLink, SAP Business Workflow, WebFlow, SAP EarlyWatch, BAPI, SAPPHIRE, Management Cockpit, mySAP.com Logo and mySAP.com are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other products mentioned are trademarks or registered trademarks of their respective companies.

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Inhalt

Cross-Application Time Sheet (CA-TS) 7
The Data Entry Screen for the Time Sheet 9
The Data Entry View, Release View, and Variable View 11
The Time Sheet Worklist 12
Prerequisites for Time Sheet Users 13
Customizing Settings for Data Entry Profiles 14
Implementing User Parameters 16
Processing Status 19
Process for Creating Time Sheets 20
Time Sheet Data Entry 23
Calling the Time Sheet for One Personnel Number 24
Calling the Time Sheet to Record Data for Several Personnel Numbers Using Single Entry . 25
Calling the Time Sheet to Record Data for Several Personnel Numbers Using List Entry..... 26
Recording Working Times 27
Resetting Entries 29
Copying Rows 30
Splitting Rows 31
Copying Working Time Attributes from the Previous Period 32
Distributing Hours Over Several Days in a Period 33
Displaying Days Off 35
Copying Information from the Worklist 36
Cancelling Approved Records 37
Changing Rejected Records 39
Branching to Trip Costs and Material Withdrawals 41
Posting a Material Withdrawal 42
Entering Basic Trip Data 43
Entry of Additional Information 44
Entering a Short Text for a Record 45
Entering a Long Text for a Record 46
Entering Information on a Confirmation 48
System Checks and Messages During Data Entry 50
Checking Your Entries 52
Processing Errors and Warnings 53
Data Entry Screen Customizing 55
Changing the Data Entry Period 56
Displaying the Weekday or Date 57
Changing the Position of Columns 58
Hiding and Reducing Columns 59
Showing and Enlarging Columns 60
Saving Your Personal Column Settings 61
Release of Data 62
Releasing Data on Saving 63
Releasing Data Using the Release View 64
Approval Procedure 65

Issuing Approvals ... 67
Approving Data Using SAP Business Workflow ... 69
Issuing Approvals (CA-TS) ... 71
Technical Implementation of the SAP Business Workflow for Issuing Approvals ... 72
Preparation and Customizing of the Approval Workflow ... 75
Using and Linking to Application Functions ... 77
Information on Working Times Recorded ... 79
Obtaining Information on Icons and Colors ... 80
Obtaining Information on the Processing Status, Document Number, and Rejection Reason ... 81
Calling the Variable View ... 82
Displaying the Short Text ... 83
Displaying the Long Text ... 84
Displaying Confirmation Information ... 85
Displaying the Predecessor of a Data Record ... 86
Displaying Detailed Information ... 87
Displaying Detailed Information on Working Time Attributes ... 88
Displaying Follow-on Documents and Outstanding Postings ... 89
Information System ... 91
Reports: Information on Time Sheet Data ... 92
Selecting Employees for Reports ... 93
Displaying Reports ... 94
Displaying Records Using the Document Display Report ... 96
Time Sheet: Time Leveling (RCATSCMP) ... 97
Examples: Checking Time Sheets ... 99
Process for Transferring Data to the Target Components ... 101
Transfer of Time Sheet Data to the Target Components ... 103
Data Transfer to All Components ... 105
Data Transfer to Controlling (CO) ... 108
Transfer to Controlling ... 110
Entry of Statistical Key Figures ... 112
Time Sheets in Cost Object Controlling ... 113
Actual Cost Determination for Time Sheet Hours ... 114
Data Transfer to Plant Maintenance/Customer Service (PM/CS) ... 116
Transfer to Plant Maintenance/Customer Service ... 118
PS/PM/CS: Creating an Index for Table AFRU ... 120
PS/PM/CS: Postprocessing Transferred Data ... 121
Data Transfer to Project System (PS) ... 123
Transfer to Project System ... 125
PS/PM/CS: Creating an Index for Table AFRU ... 127
PS/PM/CS: Postprocessing Transferred Data ... 128
Data Transfer to Materials Management (MM-SRV) ... 130
Master Data Maintenance for External Employees ... 132
Service Entry with Reference to an Operation ... 133
Data Transfer to Human Resources (HR) ... 135
Transfer to Human Resources ... 137
Immediate Transfer to HR ... 140
Entry of Attendances and Absences for HR Time Management ... 141

Extended Functions for Users of HR Time Management ... 143
Extended Checks for Users of HR Time Management ... 144
Using Information from HR Time Management ... 146
Showing or Hiding Target Hours ... 148
Copying Target Hours ... 149
Documenting Remaining Hours ... 150
Determining a Different Payment ... 151
Entry of Employee Remuneration Information ... 153
For Users of HR: Data Entry Scenarios for Cost Accounting ... 155
Assignment of Personnel Costs to the Master Cost Center ... 157
Assignment of Personnel Costs to the Receiver Object ... 159
Assignment of Personnel Costs to the Sender ... 161
Activity Allocation Between Master and Sender Cost Center ... 163
Reorganization of Interface Tables ... 166
Reorganizing Interface Tables ... 167
Assignment of Authorizations for the Time Sheet ... 168
Example: HR Authorizations for Entering Data in the Time Sheet ... 170
Time Sheet Data Archiving ... 172
Technical Background to the Time Sheet ... 173
The Database Table for the Time Sheet (CATSDB) ... 177
The Interface Tables for the Time Sheet ... 181
Processing Status ... 184
Cancelation of Time Sheet Data ... 185
Example: Recording Attendances for Human Resources ... 187

Cross-Application Time Sheet (CA-TS)

Cross-Application Time Sheet (CA-TS)

Purpose

The *Time Sheet* is a cross-application tool for recording employee working times. Working times are recorded centrally, together with cost accounting, confirmation, and external services information, and then made available to other SAP System applications for further processing.

The *Time Sheet* is a self-service application which allows both internal and external employees to enter their own working times. Alternatively, data can be recorded centrally in a data entry office.

Implementation considerations

The *Time Sheet* allows you to record employee time data for processing by other SAP components. You must therefore implement at least one other of the components listed below. You can provide data to the components individually or in combination.

Integration

With other SAP components

Required Function	Required Component
Decentralized recording of employee attendances and absences	*Time Management*
Decentralized recording of employee remuneration information	*Payroll*
Internal activity allocation and entry of statistical key figures	*Controlling*
Confirmations	*Plant Maintenance* *Project System* *Customer Service*
Recording external services	*External Services Management*
Recording travel expenses with activity reports	*Travel Management*
Recording activities for services provided	SAP Service Provider

Features

Approval Procedure

- The *Time Sheet* allows you to integrate a procedure for approving the recorded working times. *SAP Business Workflow* is one option available as a means of controlling the approval procedure.

User interface

- Using profile technology [Seite 14] and field selection, the *Time Sheet*'s self-explanatory interface can be customized to cater to the varying tasks and level of experience of its users.
- Working times can be recorded either as a number of hours or with start and end clock times.

Cross-Application Time Sheet (CA-TS)

- You can use wage types and statistical key figures to record amounts, quantities, and a number of pieces.
- All the functions are combined in a single interface [Seite 9].
- A special user interface enables data to be recorded centrally for several employees.

Additional information

- To simplify data entry, you can define default values for your employees.
- You can provide a worklist [Seite 12] to assist users, containing information on pools of confirmations or completed activities, for example.
- In addition, you can enter trip data and information on a material withdrawal.

Additional features

- To protect personal data against unauthorized access, the *Time Sheet* uses the *SAP Human Resources* authorization concept [Seite 168].
- All data records are assigned a unique document number, which means they can be tracked at any time.
- You can use SAP enhancements to extend the functions of the *Time Sheet*.

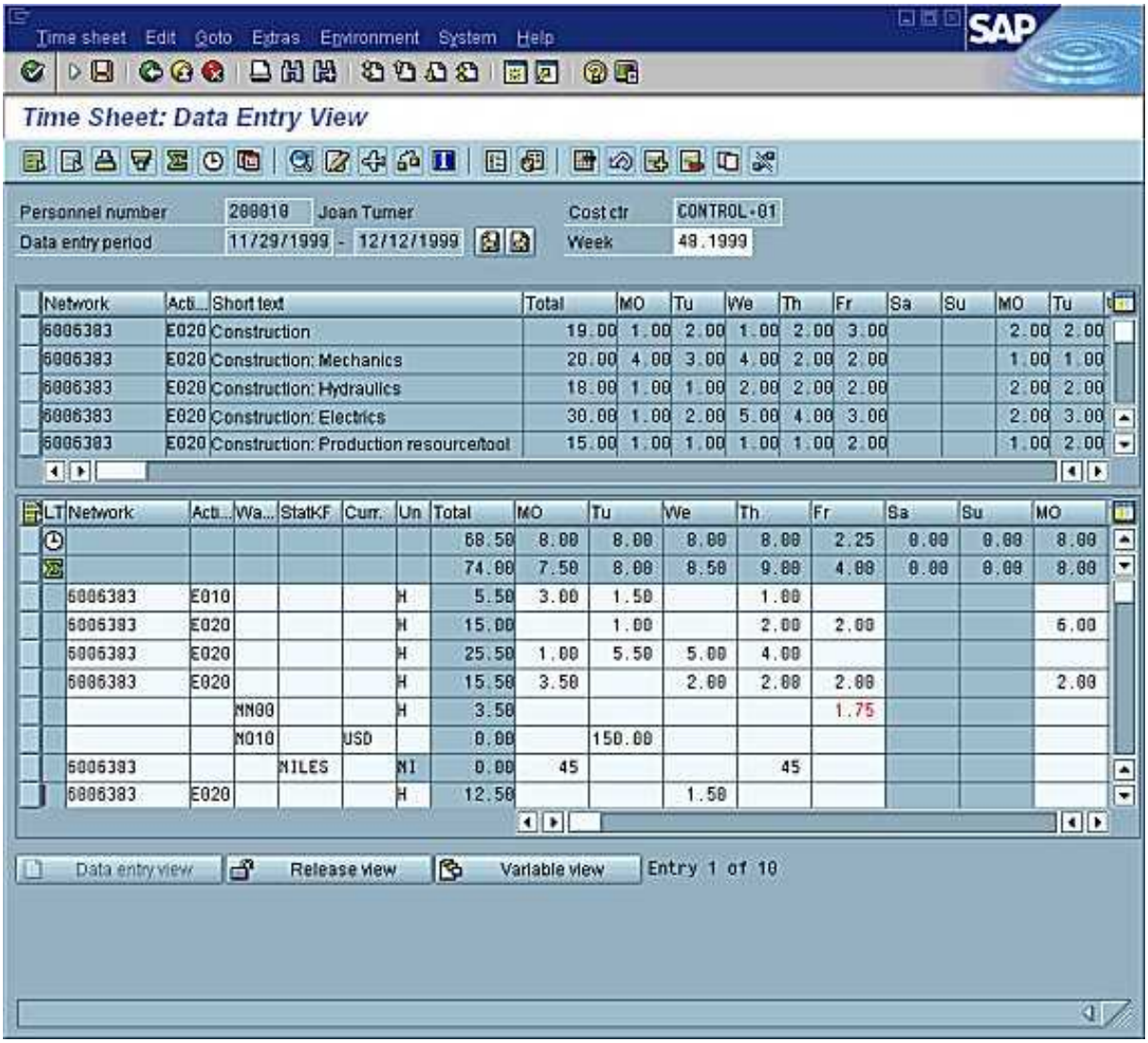
The Data Entry Screen for the Time Sheet

Definition

View for entering time sheet data.

Structure

The following graphic depicts the Time Sheet's data entry screen:



- Under the title *Time Sheet: Data Entry View* is a toolbar, and, under that, information on the employee and the data entry period.

The Data Entry Screen for the Time Sheet

- The worklist is under this information. In this example, the worklist consists of a header line, five information lines, and two scrollbars. You can copy the information from the worklist to the data entry section and thereby save yourself entering the data manually.
- The data entry section is below the worklist. You enter your data in the white cells.
- Pushbuttons for switching between the various time sheet views are at the bottom of the screen.

For more information, see:

The Time Sheet Worklist [Seite 12]

The Data Entry View, Release View, and Variable View [Seite 11]

The Data Entry View, Release View, and Variable View

Definition

Time sheet display modes for entering or displaying data according to such criteria as its release or approval status.

Structure

You can choose between the following views:

- Data entry view

  The data entry view appears automatically when you call the time sheet. In this view, you can display or process working times and their respective working time attributes [Extern] for a specific data entry period [Extern].

- Release view

  The release view provides an overview of data with the processing status [Extern] *In process*. By releasing the recorded data, you determine that you do not intend to make any further changes to it. Once released, the data is ready for approval or for further processing in the SAP System.

  The significance of the release view depends on the settings you make in Customizing, and on how you choose to release data:

  – You release the data on saving your new entries. In this case, you switch to the release view to obtain an overview of the data you last changed, that is, the data that will be released when you choose *Save*.

  – You release the data in a separate step. In this case, you switch to the release view and release the data.

  For more information, see Release of Data [Seite 62].

- Variable view

  You can use the variable view to obtain an overview of all the data with a particular processing status.

  You want to display all data that has been approved.

  See also:

  Calling the Variable View [Seite 82]

The Time Sheet Worklist

Definition

Section of the data entry screen for the time sheet. In the worklist you can display data, which the user can copy to simplify data entry.

Use

You can display a worklist in a separate section of the single entry screen if you have created the relevant data entry profiles [Seite 14] in Customizing. The worklist contains both employee-specific and object-related information. This information is only available if you are maintaining the time sheet for one employee using single entry.

Structure

The worklist can contain the following information:

- Data that the employee has already entered in the time sheet
- Data from *SAP Logistics*:
  - Resource planning (capacity splits)
  - Confirmation pools
  - Activities assigned to the employee based on his or her work center assignment
- Data created in Customizing using the SAP enhancement CATS0001 (*Set up worklist*), which is displayed in the form of a customer-specific worklist.

You define the content of the worklist and the fields it displays when you maintain your profiles in Customizing.

Using the copy function, the user can copy data from the worklist to the data entry section, and overwrite it if required.

Depending on the type of data (from planning, for example), hours can also be copied. You can deactivate this function by deselecting *Copy without hours* when you maintain your profiles.

Prerequisites for Time Sheet Users

Required Authorizations

Every user who records data in the time sheet must be assigned the following authorizations:

- A user ID for the SAP System
- Authorizations for the *Time Sheet* transaction (CATS)
- Authorizations for the personnel numbers to be processed

For more information, see Assignment of Authorizations [Seite 168]

Creating Personnel Numbers

Employees must have a personnel number in the system before they can record their working times in the time sheet. This applies to both internal and external employees.

You can assign one personnel number for several external employees.

See also:

Master Data Maintenance for External Employees [Seite 132]

You enter the personnel numbers in *SAP Human Resources* by maintaining infotype records, which are available regardless of whether or not you implement HR.

In HR, you create a personnel number using a personnel action. You use this action to create at least the following two infotypes:

- *Organizational Assignment* (0001)
- *Personal Data* (0002).

You should also create a *Time Sheet Defaults* infotype (0315). You can use this infotype to define default values for employees who enter time sheet data .

You should also create a *Planned Working Time* infotype (0007). This requires, however, that you implement HR.

For more information on maintaining infotypes, see the SAP Library. Choose *PA - Personnel Management → Personnel Administration → Infotypes.*

Linking the System User ID to a Personnel Number

If certain users only record their own working times in the time sheet, their personnel number should be linked to their system user name.

For more information, see: Implementing User Parameters [Seite 16]

Customizing Settings for Data Entry Profiles

Use

When employees record working times, they call the time sheet by specifying a **data entry profile**. The profile determines the data entry process and the layout of the time sheet. The various data entry profiles enable you to provide your employees with a data entry view that is tailored to their area of activity and that fulfils your business requirements.

To create a data entry profile, you must complete the profile maintenance and field selection steps in the Implementation Guide (IMG). In profile maintenance [Extern], you define data entry profiles with the functions you require. In field selection [Extern], you determine which fields are shown for each data entry profile.

Features

Profile maintenance

Before you define a data entry profile, you must consider the following:

- Do you want the data entry profile to provide a daily, weekly, or monthly data entry view?
- Do your employees record their own working times or are they recorded centrally, for example in a data entry office?
- Do you want to set up a separate release and approval procedure [Seite 65] for the recorded data? If you choose to use an approval procedure, do you want to use *SAP Business Workflow*?
- Which profile authorization group do you want the data entry profile to belong to?

  Profile authorization groups enable you to set up authorizations for the Time Sheet. You use authorizations to determine which data entry profiles a user can use for which personnel numbers. For more information, see: Assignment of Authorizations for the Time Sheet [Seite 168]

- Which data entry checks do you require?
- If you implement *HR Payroll*, which receiver object do you want to post the personnel costs to?
- Do you want to simplify data entry for the user by providing default values and a worklist [Extern]?

  The system reads the default values from the *Time Sheet Defaults* infotype (0315) in *Human Resources*.

Once you have answered these questions, you can create the data entry profiles you require. In addition to the options described above, there are other options that you can use to modify the time sheet layout to suit your requirements.

For example, you can choose whether users record their working times as a number of hours or with clock times. Further options enable you to make the Time Sheet more user-friendly. For more detailed information on these options, refer to the relevant field help.

Field selection

Users enter different information when recording their working times according to their area of activity. For this reason, you should provide your various employee groups with different fields on the data entry screen.

An employee who confirms a maintenance order requires different fields on the data entry screen to an employee who only records attendances and absences for *Human Resources*.

You control which fields appear for a particular user using the data entry profile he or she uses to call the time sheet, because you define an individual field selection for each data entry profile.

Implementing User Parameters

Use

There are various user parameters for the *Time Sheet*, which you can implement to simplify data entry for the user.

Implement user parameters if you want the system to

- Enter the values you require in specific fields
- Select personnel numbers for list entry [Seite 23] processing, based on the criteria you enter

You can implement the following user parameters for the *Time Sheet*:

User parameters	Description	List Entry Only
CAC	Controlling area	X
CVR	Data entry profile	
KOS	Cost center	X
PER	HR Personnel number	
PON	Object ID (PD)	X
SAZ	Time administrator (HR)	X
SGR	Administrator group (HR)	X
VSR	Personnel number selection report variant	X

Features

User Parameters for when the Time Sheet is Called

- CVR - Data entry profile

  If you implement this user parameter, the system automatically enters the data entry profile you require in the initial screen. If necessary, you can overwrite this default value.

  You would implement this user parameter for users who mainly work with one data entry profile.

- PER - Personnel number

  If you implement this user parameter, the system automatically enters the personnel number you require in the initial screen. If necessary, you can overwrite this default value.

  You would implement this user parameter for users who only enter their own data in the time sheet and, therefore, only ever call their own personnel number.

  As an alternative to implementing the user parameter PER, you can maintain the user assignment in the *Communication* infotype (0105), subtype *System user name (SY-UNAME)* (0001). In the initial screen of the time sheet, the system calls the personnel number assigned to the user currently logged on to the SAP System.

If, when maintaining your profiles, you specified that the system skips the initial screen when you call the time sheet, you must maintain either the user parameters CVR and PER, or the user parameter CVR in combination with subtype 0001 of the *Communication* infotype (0105).

The data entry screen for the specified profile and personnel number then appears immediately when the user calls the time sheet. The user can choose *Goto -> Initial screen data* to branch from the data entry screen to the initial screen, where he or she can change the data entry profile or personnel number, if necessary.

User parameters for list entry

If you want to use list entry to enter data in the time sheet, you must implement user parameters to determine which personnel numbers may be selected.

You must have set up list entry for the relevant data entry profile. To determine which criteria the system should use to select the list of personnel numbers, complete the *Person selection* section when you maintain your profile. You can choose between *Time administrator, Organizational unit,* or *Cost center* for selection. Alternatively, you can run a personnel number selection report.

For the system to select according to your criteria, you must enter the relevant user parameters containing the values you require.

- CAC - Controlling area/KOS - Cost center

  If you want to select according to cost center, you must enter the parameters CAC (Controlling area) and KOS (Cost center).

  When you call the data entry view for the time sheet, the system lists all personnel numbers assigned to the relevant cost center.

- PON - Object ID

  If you want to select according to organizational unit, you must enter the parameter PON.

  When you call the data entry view for the time sheet, the system lists all personnel numbers assigned to the relevant organizational unit.

- SAZ - Time administrator/SGR - Administrator group

  If you want to select according to time administrator, you must enter the parameters SAZ (Time administrator) and SGR (Administrator group).

  When you call the data entry view for the time sheet, the system lists all personnel numbers assigned to the relevant time administrator.

- VSR - Personnel number selection report variant

  If you want to use a selection report to select your list of personnel numbers, you can create a variant for this report. This procedure has the advantage that you do not need to enter your selection criteria every time you call the report.

  Instead, you can enter the user parameter VSR along with the variant you created. When you call list entry in the time sheet, the selection report automatically selects the personnel numbers according to your variant.

Activities

Choose *System -> User profile -> Own data -> Parameters* to enter user parameters.

Implementing User Parameters

You want to select the personnel numbers assigned to cost center 999 in controlling area 0001 every time you use list entry.

Choose *System -> User profile -> Own data -> Parameters* and enter the user parameters KOS with the value 999 and CAC with the value 0001. Now when you use list entry in the time sheet, the personnel numbers assigned to cost center 999 and controlling area 0001 appear automatically.

Processing Status

Definition

Information on the current position of time sheet records in the processing or approval procedure. The system assigns a processing status to every record written to the CATSDB database table for the *Time Sheet*.

Structure

Status	Description	Icon	Meaning
10	In process	-	The record is being processed and is not yet ready for transfer to the target components.
20	Released for approval		The record has been released and is ready for approval or rejection by the person responsible.
30	Approved		The record has been approved [Seite 65] and is ready for transfer to the target components.
40	Approval denied		The record has been rejected [Seite 39]. It cannot be transferred to the target components.
50	Changed after approval	-	An approved record has been changed. The original record is assigned this status until the new record has been approved. A reference counter allows you to track the new record back to the original record. Once the new record has been approved, the original record is assigned status 60 (Cancelled).
60	Cancelled	-	The record was cancelled [Seite 37] after approval. You cannot cancel a record if your profile settings determine that approved data may not be changed.

If your profile settings determine that no approval procedure is required, the system skips the *Released for approval* status. Records are then assigned the *Approved* status as soon as you release them. If your profile settings also determine that data is released automatically on saving, records are assigned the *Approved* status when you save them.

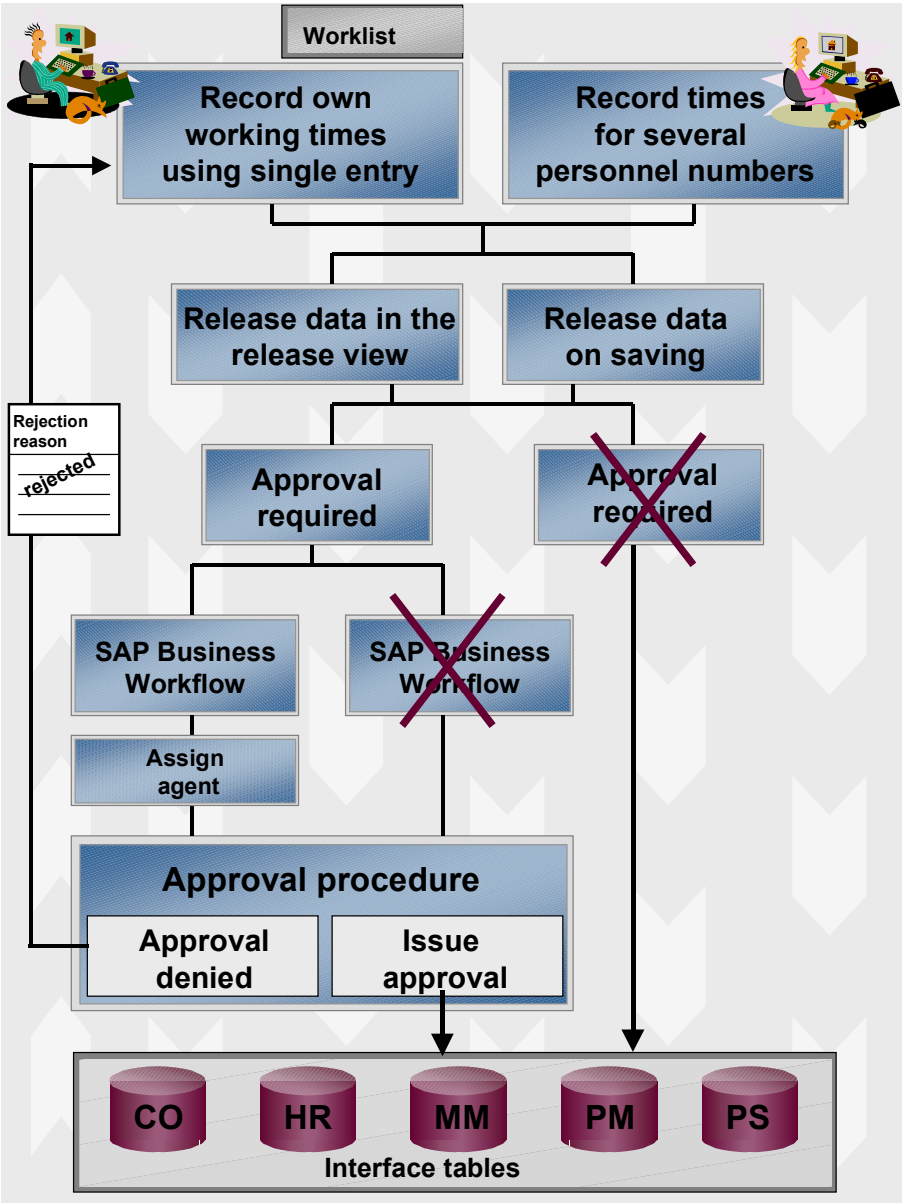
Process for Creating Time Sheets

Purpose

The graphic below shows the process for creating time sheet records. Not all of the steps are always relevant, depending on the settings defined for your data entry profile [Seite 14].

In the data entry profile, you specify whether:

- Employees record their own times or whether a time administrator records data centrally for several employees.
- A worklist is displayed for the employee when using single entry.
- Employees must release their recorded data manually or whether the data is released on saving.
- The recorded data must be approved.
- The approval procedure (if required) is controlled using *SAP Business Workflow*.



Process flow

The process from entering data to making it available for transfer to the target components comprises the following required and optional stages:

1. You enter working times (required)
2. You release entered data for approval or for transfer to the target components (required)
3. You check data using an approval procedure (optional)

Once these steps have been completed, the system writes the data to the interface tables for the target components. Depending on whether you use an approval procedure as part of the data

entry process, the system writes the data from the database table for the time sheet (CATSDB) to the interface tables:

- Following approval of a record, if you use an approval procedure
- Following the release of a record, if you do not use an approval procedure

  Depending on the settings for the data entry profile, the data is released manually from the release view or automatically when the record is saved.

Correcting Time Sheets

You can correct time sheets at any time in the following ways:

- If you correct the time sheet before the record is approved, the original record is changed.
- If you correct the time sheet after the data has been approved or transferred to the interface tables, a new record is created. The new original record and its predecessor are linked and stored in the database table for the time sheet. The predecessor is transferred as a cancellation document.

Time Sheet Data Entry

Use

You can use the *Time Sheet* to enter [Seite 27] data for one employee only (for example your own working times), or for several employees at once.

Entering data for several employees

If you want to enter data for several employees, you can only enter data for the employees who were assigned to you when the system was set up. The system compiles a list of these employees for you. From the list, you only need to select the employees whose data you want to enter.

You can enter data by:

- Using the list entry function to enter data for all your employees
- Selecting the employee whose data you want to process from a list, and entering the data using single entry. If you choose this method for entering your data, you can use the additional worklist [Extern] functions.

Features

You enter working times together with information required for the further processing of the data in other SAP System components (*Logistics, Accounting*, and *Human Resources)*. This information is known as working time attributes [Extern] You choose which working time attributes to enter based on the types of activities for which you are recording working times.

Working time attributes can vary therefore, not only from one enterprise to another, but also from one area of activity to another. The data you need to enter depends on which data entry profile [Extern] you use to call the time sheet. The data entry period can also vary from user to user.

If your enterprise implements *SAP Human Resources,* you can also enter absences, such as leave. In addition, you can also enter data for the EE Remuneration Information [Seite 153] infotype. Depending on the wage type you enter, you can also record this data as quantities or monetary amounts.

Also, if you implement *SAP Controlling*, you can record statistical key figures [Seite 112].

Calling the Time Sheet for One Personnel Number

1. Choose *Time sheet* → *Time data* → *Enter* or *Display.*

   The *Time Sheet: Initial Screen appears.*

2. Enter the data entry profile [Extern] you require.

   If the *Personnel number* field appears on the screen, enter your personnel number. Otherwise, it has been assigned automatically.

3. Choose ENTER.

   When you call the time sheet for the first time after logging on to the system, the *Key date* field appears. The key date determines the period for which the time sheet is called.

   Depending on your system settings, other fields may also appear on the initial screen.

4. If necessary, overwrite the key date.
5. Enter data in the other fields as required.
6. Choose *Enter times* or Display times.

   The *Time Sheet: Data Entry View* appears.

   For more information on entering data in the *Time Sheet*, see Recording Working Times [Seite 27].

Calling the Time Sheet to Record Data for Several Personnel Numbers Using Single Entry

1. Choose *Time sheet* → *Time data* → *Enter or Display.*

   The *Time Sheet: Initial Screen appears.*

2. Enter the data entry profile [Extern] you require.

3. Choose ENTER.

   A list of personnel numbers and the *Key date* field appear. The key date determines the period for which the time sheet is called.

   Depending on your system settings, other fields may also appear on the initial screen.

4. Select the personnel number for which you want to maintain or display working times.

5. If necessary, overwrite the key date.

6. Enter data in the other fields as required.

   Note that all the data you enter should be relevant for the selected personnel number.

7. Choose *Enter times* or Display times.

   The *Time Sheet: Data Entry View* appears for the selected personnel number.

   For more information on entering data in the *Time Sheet*, see Recording Working Times [Seite 27].

Calling the Time Sheet to Record Data for Several Personnel Numbers Using List Entry

1. Choose *Time sheet* → *Time data* → *Enter* or *Display.*

   The *Time Sheet: Initial Screen appears.*

2. Enter the data entry profile [Extern] you require.

3. Choose ENTER.

   A list of personnel numbers and the *Key date* field appear. The key date determines the period for which the time sheet is called.

   Depending on your system settings, other fields may also appear on the initial screen.

4. If necessary, overwrite the key date.

5. Enter data in the other fields as required.

6. Select one, several or all the personnel numbers in the list.

7. Choose *Enter times* or Display times.

   The Time Sheet: *Data Entry View* appears.

   For more information on entering data in the *Time Sheet*, see Recording Working Times [Seite 27].

Recording Working Times

Use

This section explains how to enter your own working times or the working times of other employees in the time sheet. You can enter data in the following three ways:

- You enter your own working times [Seite 24].
- You enter working times for several employees using single entry [Seite 25].
- You enter working times for several employees using list entry [Seite 26].

You can customize the data entry screen to cater to your requirements. For more information, see Entry Screen Modification [Seite 55].

Procedure

1. Call the data entry screen for the time sheet.
2. Enter the working time attributes required for the employee whose working times you want to record. You will normally want to enter data in all the fields in the data entry section.

   To reduce the amount of data you have to enter, the system can automatically copy default values for the employee to the relevant fields. The default values are entered in the rows in which you have already recorded times. They appear when you choose ENTER. You can overwrite the default values as required.

   - There are some fields in which you must enter data before you can save your entries. The system issues a message if you fail to make an entry in one of these required fields.
   - For information on the special features of some of the working time attributes, see Displaying Detailed Information [Seite 87] .

   If you are recording working times for several employees using list entry, enter the personnel number of the employee whose working times you want to maintain in the *Personnel no.* field in the data entry section of the time sheet. In the same row, enter data as required. If data has already been entered for some employees in the current data entry period, a row already exists for them in the data entry section.
3. Enter the times the employee has spent working on a project, order, and so on. Enter the number of hours or the clock times for each day and working time attribute.

   a) When you enter a number of hours, you need only enter the number preceding the decimal point if you are dealing with whole hours: `4` for `4.00` hours, for example.

   b) In the same way, when entering clock times, you need only enter `8` for `08:00` (8 am).

4. Enter any additional information on the records as required.

   For more information, see Entering Additional Information [Seite 44].

5. Check [Seite 52] the data you have entered.

6. If necessary, correct data that has generated an error or warning message. For more information, see Processing Errors and Warnings [Seite 53].

7. You can change [Seite 56] the data entry period to enter more data as required.

   If you change the data entry period, the system checks some of the data you have entered.

8. If you are using list entry to record working times for several employees, repeat steps 2-7 for each employee.

9. Release the data only when you are sure you do not want to make any further changes. The data is then ready for further processing by the person assigned to approve the data, or for transfer to the target components [Extern].

   Depending on the settings for your data entry profile, you use one of the following procedures to release the data:

   a) Release on saving. In this case, the data is released automatically when you save it. Released data is assigned the processing status [Extern] *Released for approval*.

      The system reacts in different ways depending on whether you have chosen to use an approval procedure or not. For more information, see: Releasing Data on Saving [Seite 63]

   b) Release data using the release view. For more information, see: Releasing Data Using the Release View [Seite 64]

10. Save your data.

    The initial screen reappears.

11. If you are using single entry to maintain data for several employees, select the next employee from the list and maintain his or her data. Do this by repeating steps 2 -9.

Result

You have recorded your own or other employees' working times in the *Time Sheet*.

Resetting Entries

Use

You can use the *Reset entries* function to cancel all data you have entered for the current data entry period.

You can only do this if you have not yet saved the data. Note that your data is saved automatically when you change the data entry period or view.

You can use this function if:

- You want to undo changes without having to cancel data entry.
- You have already processed several data entry periods and want to delete the last changes you made.

  When entering data, you changed the data entry period [Seite 56] twice. You want to cancel the entries in the current data entry period.

  If you choose *Reset entries*, the data in the current data entry period is deleted. The data you entered for the two previous periods remains.

Procedure

1. Check whether you want to delete all new entries in the current data entry period, and that all data has not yet been released or saved.
2. Choose *Reset entries*.
3. Choose *Yes* when the confirmation prompt appears.

Result

You have canceled the entries in the current data entry period.

Copying Rows

Use

You will occasionally enter data with working time attributes [Extern] that are almost identical to those already entered for the current data entry period [Extern]. If this is the case, you can speed up the data entry process by copying the existing data.

The system copies the working time attributes and times. All you have to do is make any changes required.

You can also split rows for copying working time attributes [Seite 31].

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Select the row(s) you want to copy.
3. Choose *Copy row*.

Result

The system copies the selected row(s) of data previously recorded to the data entry section. You can change the working time attributes and times.

Splitting Rows

Use

You can use the *Split row* function to move existing data from a certain point in the data entry period to a new row.

You have entered data for a relatively long period of time. You discover that as of a certain day in the period, a different order number or cost center applies.

The quickest way to enter the changes is to split the relevant row as of the day in question. You do not have to enter the working time attributes and times again, but simply overwrite the relevant fields.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Position the cursor on the cell from which you want a new row to begin.
3. Choose *Split row*.

Result

The row is split from the day you selected. The system enters identical working time attributes in both rows.

Copying Working Time Attributes from the Previous Period

Use

When you record data, you must enter the relevant working time attributes [Extern]. To reduce your workload, you can copy working time attributes that have already been entered from the previous period. You then only have to enter the number of hours worked, clock times, or absences for the current period.

You can only copy working time attributes from the previous period if:

- The previous period lies directly before the current data entry period [Extern]
- You have not yet entered data for the current period

Procedure

1. Call the data entry screen [Seite 23] for the time sheet.
2. Choose *Extras → Copy previous period.*

   The system copies the working time attributes from the previous period to the data entry section.
3. Enter the number of hours worked or the relevant clock times.

Result

You have used the working time attributes from the previous period to maintain data for the current data entry period.

Distributing Hours Over Several Days in a Period

Use

To simplify data entry, the time sheet allows you to distribute a specified number of hours over several days in a period . Instead of entering the hours for each day individually, you can use the *Distribute hours* function to automatically

- Distribute a total number of hours over several days in a period
- Copy a certain number of hours to each cell

You can distribute hours as follows:

Distribution of hours over total area selected

Using this method, you distribute the total number of hours over a specific period, that is, they are distributed over one or more rows. There are various functions that you can use to distribute the hours according to your individual business requirements.

There is a function for distributing the total number of hours equally among all cells that are selected and assigned a working time attribute [Extern], for example.

Over a period of two weeks, you have worked for a total of 90 hours on three different cost centers.

Instead of entering the exact number of hours for each cost center, you distribute the hours among all relevant cells. If it is a five-day week, the system distributes three hours to each day and cell.

Distribution of hours per selected row

Using this method, you distribute the total number of hours to the selected period in one row. You use a distribution function in this case too.

For two weeks, you have worked 40 hours per week on two orders.

Instead of entering the exact number of hours for each day, you distribute the hours over the whole period. If it is a five-day week, the system distributes four hours to each day and row.

Distribution of hours to each selected cell

Using this method, you distribute a number of hours per day (eight hours, for example) to all cells that are selected and assigned a working time attribute.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Enter the required working time attributes.
3. Select the rows for which you want to distribute hours.

Distributing Hours Over Several Days in a Period

4. Choose *Edit* → *Propose times* → *Distribute hours*.

   The *Distribute hours* dialog box appears.
5. Enter the hours that you want to distribute over the period.
6. Specify the period over which you want to distribute the hours.
7. Specify how you want the hours to be distributed.
   a) ***Distribution of hours over total area selected***
      i) Select the *Distribution function* field.
      ii) Choose a distribution function.
      iii) Do not select the *Hours per row* field.
   b) ***Distribution of hours to each selected working time attribute***
      i) Select the *Distribution function* field.
      ii) Choose a distribution function.
      iii) Select the *Hours per row* field.
   c) ***Distribution of hours to each selected cell***

      Select the *Hours per cell* field.
8. Exit the dialog box by choosing *Continue*.

   The data entry view for the time sheet reappears.

Result

The specified number of hours is distributed over the selected period according to the method chosen.

Displaying Days Off

Use

You can use the *Days off on/off* function to highlight days off when entering data. This makes it easier to distinguish between workdays and days off. This function is particularly useful if the data entry period [Extern] is longer than a week.

You can only use the *Days off on/off* function if:

- The days off are not already displayed automatically. If they are, you cannot enter times for days off.
- Your data, or the data of the employees you are processing, has been maintained accordingly in the SAP System

Procedure

1. Call the data entry screen [Seite 23] for the time sheet.
2. Choose *Edit* → *Days off on/off.*

Result

The days off are highlighted and you cannot enter data for them. Choose *Days off on/off* again to reverse this setting.

Copying Information from the Worklist

Use

You can simplify the data entry process by copying data from the worklist [Seite 12].

The worklist contains the following working time attributes [Extern]:

- Working time attributes with data that you have already entered in the time sheet
- Working time attributes with activities scheduled for you or your colleagues
- Working time attributes with pools of confirmations

The copy function allows you to copy working time attributes from the worklist to the data entry section. This speeds up the data entry process, and reduces the risk of inadvertent errors.

Depending on the type of data entered (planning data, for example) and the settings you made when the system was customized, you may also copy hours to the relevant cells in the data entry section.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. In the worklist, select the row you want to copy to the data entry section.
3. Choose *Copy row*.

   The system copies the relevant line from the worklist to the data entry section. Depending on the type of data, the hours may also be copied.
4. Check the data that has been copied. You should pay particular attention to any hours that were copied.
5. Overwrite the data, if necessary.

Result

You have copied information from the worklist, and modified it as required.

Cancelling Approved Records

Use

If you notice that some of your approved data contains errors, you can cancel the records with errors. To ensure that you can still track cancelled records in future, the system does not delete them. Instead it creates a cancellation document that contains the reference to and invalidates the original record.

If your profile settings determine that approved records may not be changed, you also cannot cancel them once they have been approved.

If you change the cell content of an approved record, you are effectively cancelling the original record. The system creates a new record to reflect the changes.

Whilst a record has processing status 10 (*In process*), you can overwrite its cell content in the time sheet as often as required without cancelling the record.

If your data does not undergo an approval procedure, you can cancel it as soon as it has been released.

Procedure

Cancelling single records

1. Call the data entry screen for the time sheet.
2. Overwrite the cell content of the record you want to cancel with "0" (*zero*).
3. Save your entries.

Cancelling all records in a row

1. Call the data entry screen for the time sheet.
2. Select the row containing the records you want to cancel and choose *Delete row*.

   All the records in the selected row are cancelled.

   If you want to cancel only some of the data in a row, split [Seite 31] the relevant row.

   Then select the row containing the records you want to cancel and choose *Delete row*.
3. Save your entries.

Result

You have cancelled the original records.

Cancelling Approved Records

Changing Rejected Records

Use

If the settings for your data entry profile specify that data entered must undergo an approval procedure, the person approving the data can either approve or reject the records. You can change any rejected records in the data entry screen for the time sheet, or you can release them unchanged for approval again.

Whether rejected records are already highlighted in the data entry screen, or just in the release view, depends on your profile settings.

Procedure

Rejected records highlighted on the data entry screen:

1. Call the data entry screen for the time sheet.

   Any rejected records are highlighted and display-only.

2. Select a record that was rejected by double-clicking on it.

   The *Cell Information* dialog box appears, where you can view the rejection reason.

3. Change the number of hours and, if necessary, enter a short text.

4. Confirm your entries.

   The data entry view reappears.

5. Save your entries.

   If you do not think the rejected record contains any errors, switch to the *Release view* and release it again. The record is resubmitted to the person selected to approve the data.

Rejected records not highlighted in the data entry screen:

1. Call the *Release view* for the time sheet.

   Any rejected records are highlighted.

2. To view the rejection reason, select a record that was rejected by double-clicking on it.

3. Switch to the *Data entry view*.

4. Change the record that was rejected.

5. Save your entries.

   If you do not think the rejected record contains any errors, release it again in the release view. The record is resubmitted to the person selected to approve the data.

Result

You have corrected a rejected record.

Branching to Trip Costs and Material Withdrawals

Use

You may want to enter important information in addition to time data, such as the details of a business trip or a deduction of materials used.

You can branch directly from the time sheet to the relevant transactions in the *Trip Costs* and *Goods Issue* components.

Branching to these transactions simplifies data entry. This function should not, however, be seen as a form of integration between the time sheet and these components.

Features

Branching to Trip Costs

Choose *Environment* → *Trip costs* to branch directly from the data entry screen for the time sheet to the data entry screen for trip costs. You can then create a trip. The working time attributes entered in the time sheet are copied to *Trip Costs* as default values.

You cannot use the approval procedure for the time sheet to approve business trips. *Travel Management* has its own approval processes for this.

For simplified data entry, the system proposes clock times as default values when you process trip data. These values are not related to the clock times entered in the time sheet, nor are they taken from the employee's work schedule.

After you have saved the trip data, you automatically return to the data entry screen for the time sheet. The system copies the trip number to the relevant field.

Branching to Goods Issue

You can also branch to the *Enter Goods Issue: Initial Screen* transaction to record a material withdrawal. Once again, there is no direct integration with the time sheet.

Posting a Material Withdrawal

Use

You may have used material during an activity for which you are entering working times. By branching directly to the *Materials Management (MM)* component, you can post a material withdrawal. You can only do this if your enterprise implements MM.

The time sheet data and the data on the material withdrawal are not saved together. If you do not save the data entered in the time sheet, or even if you delete it, the data entered on the material withdrawal is not affected.

Procedure

1. Call the data entry screen for the time sheet.
2. Enter [Seite 23] the data in the time sheet as usual.
3. Choose *Environment → Material withdrawal.*

   The *Enter Goods Issue: Initial Screen* appears. You can enter all data relating to the material withdrawal on this screen.

   For more information on material withdrawals, see Goods Issues [Extern].
4. Save your entries.

   The screen for maintaining the time sheet reappears. The system issues a message at the foot of the entry screen specifying the document number that has been created.

Result

You have entered information on a material withdrawal in addition to time sheet data.

Entering Basic Trip Data

Use

You can use the time sheet to enter working times you spent on a business trip. You can, therefore, branch directly to the component where you maintain trip data.

- The time sheet data and the trip data are not saved together. If you do not save the data entered in the time sheet, or even if you delete it, the data entered on the trip is not affected.
- The procedure for approving trip data is not the same as the one for approving time sheet data. The data must therefore undergo two separate approval procedures.

Prerequisites

Your enterprise must implement the *Travel Management* component.

Procedure

1. Enter [Seite 23] the data in the time sheet as usual.
2. Select the period you spent on a business trip.
3. Choose *Trip costs.*

   The *Trip Data Maintain: Receipts* screen appears. You can enter all data relating to the trip on this screen. The system automatically copies any working time attributes that have already been entered to the relevant fields.
4. Save your entries.

   The data entry view for the time sheet reappears.

   The *Trip number* field may appear in the data entry section, displaying the trip number that has been assigned to your trip.

Result

You have entered information on a trip in addition to time sheet data.

Entry of Additional Information

Use

You may want to enter additional, important information on a record. There are special functions available to you for this.

Whether or not you can use one of the following functions depends on

- The type of data you enter
- Whether your enterprise uses the relevant SAP components

Features

You can enter the following additional data:

- Documentation on particular situations that have arisen in the course of your work
- Information on confirmations (*SAP Logistics*)
- Information on a material withdrawal (*Materials Management* component)
- Basic trip data *(Travel Management*)

Entering a Short Text for a Record

Use

In the *Cell Information* dialog box, you can enter a short text for each time sheet record you create.

You want to document the following situations in a short text:

- You have performed an activity for which you receive a special bonus (a hazard bonus, for example)
- The employee for whom you are entering data was involved in an industrial accident

The short text can also be used as the header for any long text you enter for the record.

If you change the header when you edit the long text [Seite 46], the short text in the *Cell Information* box also changes.

Procedure

1. Call the data entry screen for the time sheet.
2. Enter [Seite 23] the data in the time sheet as usual.
3. Position the cursor on the record for which you want to enter a short text.
4. Double-click the left mouse button.

   The *Cell Information* dialog box appears.
5. Enter a text in the *Short text* field.
6. To exit the dialog box, choose *Continue*.

   The data entry view for the time sheet reappears.

Result

You have entered a short text for a record.

Entering a Long Text for a Record

Use

The time sheet allows you to enter a long text for a record, if required.

You could not complete an activity in the allotted time, since the required materials were not delivered on schedule, for example. You want to document these circumstances.

Long texts can be accessed when entering and displaying time sheet data, and can be queried in reporting.

Note that the long texts are not the same as the short message texts that can be entered within the approval procedure as information for the person approving the data.

The long texts are **not** transferred to the target component [Extern]. They are, for example, not available as additional information on a confirmation in *Logistics* components.

If there is a predecessor [Seite 86] to a data record, the long text entered for the predecessor is automatically assigned to the new record. A predecessor is the record that is created when you make changes to a record that has already been approved.

Procedure

1. Call the data entry screen for the time sheet.
2. Enter [Seite 23] data in the time sheet as usual.
3. Select the record for which you want to enter a long text.
4. Choose *Long text*.

   The *Change time sheet* dialog box appears.
5. Enter your text or change the text for the predecessor.

   Enter a header for the text in the first line of the text editor. The header appears as the short text in the cell information [Extern].

   For more information on how to create or change the long text, see *Help → Application help.*
6. Exit the text editor by choosing *Back*. The text you have entered is now saved.

   The data entry view for the time sheet reappears.

Result

You have entered a long text for a record. Depending on your system settings, the record may now be highlighted in color. Double-click on the record to see the cell information, where the first line of the long text appears as the short text.

Entering Information on a Confirmation

Use

Confirmations report on the processing status of orders, networks, operations, suboperations, and individual capacities. This data is relevant for *Logistics* components.

You can use the *Cell Information* dialog box to enter the following additional information on a confirmation:

- Indicator denoting status of confirmation

  You can specify whether the confirmation is a partial or final confirmation. If it is a final confirmation, there will be no further confirmations relating to the operation.

  If you do not specify otherwise, the system interprets the confirmation as a partial confirmation.

- Forecast values

  You can specify forecast values relating to:

  – The work still to be completed (remaining work)

  – The date on which the operation will be completed (finish date)

  Forecast values are significant when planning deadlines and resources.

  Note that you can only confirm times, not quantities, using the time sheet.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Enter the working time attributes and the duration in hours of the activity (you can also enter clock times).
3. Double-click on the record on which you require confirmation information.

   The *Cell Information* dialog box appears,
4. Enter the forecast values in the *Remaining work* (in hours) and *Forecast finish date* fields.
5. Enter an indicator to denote the status of the confirmation.

   If the *Final confirmation* field is selected, the confirmation is a final confirmation. If it is not selected, it is a partial confirmation.
6. Exit the *Cell Information* dialog box by choosing *Continue*.

   The screen for maintaining time sheet data reappears.

Result

You have entered confirmation information on a data record. The record is now highlighted in color.

System Checks and Messages During Data Entry

Use

The time sheet aims to make data entry as easy as possible. This includes validity checks, which the SAP System runs on all the data that you enter. If you have entered an order number that does not exist, for example, the system issues a message to bring this to your attention. You can then correct the data.

The messages appear either in a dialog box or at the foot of the screen.

See also:

Processing Errors and Warnings [Seite 53]

Features

Depending on the type of data, the checks are made when you:

- Choose ENTER
- Save data
- Check [Seite 52] data
- Change [Seite 56] the data entry period
- Switch between the different time sheet views (*Data entry view*, *Release view*, *Variable view*).

  An exception is when you exit the release view. The system does not check for errors in this case, since the user is not able to correct any errors that occur at this point.

  Released records undergo more thorough checks than records assigned the processing status [Extern] *In process*. This means that users can also enter provisional data in the time sheet.

In the standard system, validity checks are carried out when you perform any of the above activities.

In addition, you can define the following checks in the system:

Profile-dependent checks

You can define the following checks for entered hours or clock times when you maintain your data entry profiles:

- 24 hours check:

  This check prevents a user from being able to enter more than 24 working hours for one day.

If you enter data on external services, you can assign several persons one personnel number. If this case, you should not specify the 24 hours check.

The 24 hours check is carried out when you perform any of the above actions for records assigned the processing statuses *In process* and *Released*.

- Collisions with other time sheet records:

  This switch is only relevant for data records that specify clock times. It checks for and prevents overlaps between the clock times you enter.

  If you implement HR, the system checks that no more data is entered for a day once a full-day absence has been entered.

  The system checks for collisions in the data entry period currently being processed when you perform any of the above actions. The processing status assigned to the data is irrelevant in this case.

Profile-dependent checks for users of HR Time Management (PT)

If you implement *HR Time Management*, you can also validate the data against target hours and quotas, and check for collisions between attendances and absences.

See also:

Extended Checks for Users of HR Time Management [Seite 144]

Customer-defined checks

The SAP enhancements CATS0003 (*Validate recorded data*) and CATS0006 (*Validate entire time sheet*) allow you to extend the standard checks by defining your own checks.

Checking Your Entries

Use

You can use this procedure to check for errors in the time sheet before saving new or changed data.

This procedure is especially recommended if you use list entry for several employees. It allows you to check the data for each employee, and make any necessary changes.

Procedure

1. Call the data entry screen for the time sheet.
2. Enter [Seite 23] your time sheet data as usual.
3. Choose *Check entries*.

   If there are messages relating to the period being checked, they are listed in a dialog box.
4. Process [Seite 53] the error messages and warnings as required.
5. Check the data again.
6. If there are no more errors, you can continue processing the time sheet.

Processing Errors and Warnings

Use

This procedure explains how to react to errors and warnings issued by the SAP System.

Procedure

Warnings

1. If the system has issued a warning, you must decide whether or not a correction is necessary.
2. You can then correct the data if required.
3. If you do not want to change the data, choose to ignore the warning and continue processing.

Error Messages

If the system has issued an error message, you must correct the error before you can continue with your work.

1. Find the record that contains errors.

   Note that the record containing errors may not lie in the current data entry period. In this case, change [Seite 56] the data entry period.

2. Correct the data containing errors.

   a) Entry XXXXXX does not exist

   Check and correct your entries.

   b) Target hours have been exceeded

   Change the number of hours entered accordingly. If a warning is issued, you can enter a long text [Seite 46] for the relevant record explaining, for example, the reason for the situation.

3. If you are unable to correct the data that has caused the error, you must delete the record before you can continue. Some errors may require your system administrator to change the system settings.
4. Check [Seite 52] the data
5. Continue processing.

Result

You have processed a warning or error message.

Data Entry Screen Customizing

Use

You can customize the data entry screen to best suit your way of working.

As well as changing the data entry period, you can modify the screen layout, and change which fields are displayed in the data entry section and the worklist [Extern] according to your requirements.

You can save the settings you make for individual fields. This means your personal entry screen is available every time you maintain time sheet data.

Any individual column settings you make apply regardless of which data entry profile [Extern] you use.

Changing the Data Entry Period

Use

You always call the time sheet for a particular key date. The key date determines the week, month, and so on, which the time sheet displays.

The system selects the key date according to the current date. You define how the key date relates to the current date for each data entry profile [Extern]. The system can always choose the previous week as the key date, for example.

You can change the data entry period in the time sheet views [Seite 11] without having to call the time sheet again.

The key date is a system default value. You can overwrite the key date at any time in the *Time Sheet: Initial Screen*.

You can use your data entry profile to enter the data for a full week.

When entering data for the week December 8 through December 14, you discover that you still have data to enter for the previous week. You change the data entry period to the week December 1 through December 7.

Your data entry profile determines the earliest and latest date to which you can scroll. If you reach the upper or lower limit of the data entry period, the system notifies you with a message.

Procedure

1. Call the data entry screen for the time sheet.
2. Change the data entry period if required.

   There are two ways to change the data entry period:

   – You can go to a previous or future data entry period by scrolling in the calendar.

     To scroll to a previous data entry period, choose *Previous screen*.

     To scroll to a future data entry period, choose *Next screen*.

   – You can go directly to a specific data entry period by entering the calendar week.

     Overwrite the calendar week currently displayed with the data entry period you require and choose .

Displaying the Weekday or Date

Use

Depending on your Customizing settings, the system shows either the date or the weekday and date in the cell headers in the data entry section. You can switch between the two display variants.

When you switch between the date and weekday/date display, the date display in the worklist also changes. However, if you choose to display weekdays, the system shows the weekdays only in the worklist, that is not in combination with the date.

Procedure

1. Call the screen for displaying or maintaining the time sheet.
2. Choose *Weekdays on/off*.

Changing the Position of Columns

Use

You can change the position of individual columns in the data entry section or worklist [Extern] for the time sheet. This function allows you to change the sequence of the working time attributes you maintain to better suit your way of working, for example.

If you save the settings you make, you can use your personal entry screen each time you maintain time sheet data.

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Position the cursor on the name of the column you want to change and press the left mouse button when a white cross icon appears.
3. Without releasing the mouse button, position the cursor where you want the field to appear.
4. Now release the left mouse button.
5. Save [Seite 61] your table settings as a variant if you want them to appear the next time you call the time sheet.

Hiding and Reducing Columns

Use

You can reduce the size of columns you do not need in the data entry section of the time sheet or in the worklist [Extern], or you can hide them completely. If you save the settings you make, you can use your personal entry screen each time you maintain time sheet data.

The time sheet has certain required fields in which you must enter data. The system also checks the fields you have hidden. This means that the system may issue error messages or warnings when the cause is not obvious to you on the data entry screen.

You should show the relevant column in this case. For more information, see Showing and Enlarging Columns [Seite 60].

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Move the pointer to the right edge of the column you want to hide, and when the black cross appears, press the left mouse button.
3. Without releasing the mouse button, reduce the size of the column as required.
4. Now release the left mouse button.
5. Save [Seite 61] your table settings as a variant if you want them to appear the next time you call the time sheet.

Showing and Enlarging Columns

Use

You can enlarge columns in the data entry section or in the worklist [Seite 12] for the time sheet. You can also show columns that you have previously hidden [Seite 59].

If you save the settings you make, you can use your personal entry screen each time you maintain time sheet data.

You can recognize hidden columns by a thin vertical line.

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Move the pointer to the right edge of the column you want to show or enlarge, and when the black cross appears, press the left mouse button.
3. Without releasing the mouse button, enlarge the column as required.
4. Now release the left mouse button.
5. Save [Seite 61] your table settings as a variant if you want them to appear the next time you call the time sheet.

Saving Your Personal Column Settings

Use

If you have hidden, enlarged, or changed the position of columns, you can save these settings as your standard settings. Each time you call the time sheet in future, the settings you have defined appear automatically in the worklist [Extern] and data entry section.

You can create several variants for your column settings, and use the one which best suits your requirements at the time. You can cancel your settings by activating the basic settings again.

The personal column settings that you save here as the standard setting apply regardless of which data entry profile [Extern] you use.

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Change the column settings as required.
3. Choose (located above the right-hand scroll bar).

   The *Table Settings* dialog box appears. You can now save your personal settings as a variant.
4. Enter a variant name and choose *Create*.
5. If you want the system to use this variant each time the time sheet is called from now on, select the *Use as standard setting* field.
6. Choose *Save*.

   The data entry view for the time sheet reappears.

Result

The next time you call the time sheet, the worklist and data entry section are displayed as you defined. The system uses the variant you have defined as the standard setting.

Release of Data

Use

Once you have finished processing a record and do not intend making any further changes, you can release the data. You determine how you want to release the data when you maintain your profile.

Data can be released for different purposes:

- You can release the data for approval [Seite 65]. The data is checked a final time and approved by your immediate superior, for example. Approved data can then be transferred to the target components [Extern] for further processing.
- You can release the data without an approval procedure. Data can then be transferred to the target components without first having to undergo a final check.

Released data is assigned the processing status [Seite 81] *Released for approval*.

Activities

Depending on the settings for your data entry profile, you use one of the following procedures to release the data:

- Release on saving. The data is released automatically.

  The system reacts in different ways depending on whether you have chosen to use an approval procedure or not. For more information, see: Releasing Data on Saving [Seite 63]

- Release data using the release view. For more information, see: Releasing Data Using the Release View [Seite 64]

Releasing Data on Saving

Procedure

1. Enter [Seite 23] your time sheet data.
2. Save your data.

   The system reacts in one of two ways depending on the settings defined for your profile.

   a) The *Time Sheet: Initial Screen* reappears. The system has released the data.

   b) The *Time Sheet: Enter Release Information* screen appears. Enter the person responsible for approving the data.

      i) In the *Approved by* section, specify how you want to determine who approves the data.

      You do this by selecting the field you want to use to determine who approves the data. You can choose between the *Position*, *User*, *Work center*, *Job,* and *Organizational unit* fields.

      In the *Recipient* field, enter for example the number of the position or the name of the user.

      If there are several persons who still have your data to approve, you can use the possible entries function to display them in a list. From the list, you can choose who you would like to approve your current data.

      ii) If you want to notify the person approving the data of a particular circumstance relating to the data, enter a short message.

      Note that the short message function can only be used to enter information for the person approving the data. It does not form part of the data record. If you want to attach information to the record itself, you can enter a long text [Seite 46].

      iii) Choose *Continue*.

      The *Time Sheet: Initial Screen* reappears.

Result

You have released and saved data, specifying a person to approve the data as required.

Releasing Data Using the Release View

Procedure

1. Enter [Seite 23] your time sheet data.
2. Switch to the *Release view*.

   In the release view, records which have not yet been released are highlighted.
3. Select the data records you want to release.
4. Choose *Release.*
5. Save your data.

   The system reacts in one of two ways depending on the settings defined for your profile.

   a) The *Time Sheet: Initial Screen* reappears. The system has released the data.

   b) The *Time Sheet: Enter Release Information* screen appears. Enter the person responsible for approving the data.

      i) In the *Approved by* section, specify how you want to determine who approves the data.

      You do this by selecting the field you want to use to determine who approves the data. You can choose between the *Position*, *User*, *Work center*, *Job,* and *Organizational unit* fields.

      In the *Recipient* field, enter for example the number of the position or the name of the user.

      If there are several persons who still have your data to approve, you can use the possible entries function to display them in a list. From the list, you can choose who you would like to approve your current data.

      ii) If you want to notify the person approving the data of a particular circumstance relating to the data, enter a short message.

      Note that the short message function can only be used to enter information for the person approving the data. It does not form part of the data record. If you want to attach information to the record itself, you can enter a long text [Seite 46].

      iii) Choose *Continue*.

      The *Time Sheet: Initial Screen* reappears.

Result

You have released and saved the data, specifying a person to approve the data if required.

Approval Procedure

Use

The approval procedure is an optional part of the time sheet.

Most time sheet records contain confidential data relating to, for example, an employee's payment or the progress of a project.

If employees maintain their own working time data in the system, the approval procedure can be used to check this data before it is transferred to the target components. Each time sheet record is approved on an individual basis.

The persons responsible for approving data records, such as supervisors, personnel officers, or project leaders, require special authorizations [Seite 168].

Prerequisites

For each data entry profile, you must determine whether data is to undergo an approval procedure or not. Activate the *Approval required* field when maintaining your profile if you want to use the approval procedure.

Working time data cannot be approved until it is assigned the processing status [Seite 184] *Released for approval*.

Features

- In most cases, you would use *SAP Business Workflow* to approve released times and give notification of rejected data records. This triggers the report **RCATSB01** (*Time Sheet: Approve Times*).

  If you use this procedure, you receive a message in your inbox informing you of data due for approval. When you choose a personnel number, the system automatically starts the approval report.

  For more information, see: Approving Data Using SAP Business Workflow [Seite 69]

- You can also issue approvals manually from the time sheet menu. You can still start the approval report manually even if you normally use workflow to approve the data. If you choose this option, the system deletes the relevant tasks from your inbox.

  For more information, see: Issuing Approvals [Seite 67]

- If you do not want to approve the data, you can enter a rejection reason [Extern] for the employee or other person who entered the data. You must define the *rejection reasons* in Customizing.

- Once data is assigned the status 30 - *Approved*, the system writes it to the relevant interface tables. You can then transfer the data to the required target component(s).

  Time sheet records can be changed at any time by the person who entered them, even once they have been approved.

Approval Procedure

This also applies to data records that have already been transferred to the target component(s). If this is the case, a cancellation record is created from the original document and transferred to the target component(s).

Issuing Approvals

Use

If your profile settings require time sheet data to undergo an approval procedure [Seite 65], you can select the necessary approval report from the time sheet menu. This is still possible even if you selected to use a workflow for the approval procedure when you maintained your profiles.

Procedure

1. Call the time sheet.

2. Choose *Time sheet -> Approval -> Selection Using Personal Data, Selection Using Organizational Structure, or Selection Using Time Sheet Data*.

   The selection screen for your chosen report appears.

3. Select the data you want to approve

   Select the data you want to approve according to the report you have called:

   – **Selection using the *Personnel Administration (PA)* database**

     This option allows you to select employees based on their organizational assignment (for example employee subgroup, cost center, and so on).

   – **Selection using organizational structure:**

     You can use the following *object types*:

Object type	Meaning	Object ID
O	Organizational unit	Organizational unit number
S	Position	Position number
P	Person	Personnel number

   – **Selection using the time sheet database**

     With this option, you can use important working time attributes [Extern] to select data (network, cost center, or purchase order, for example).

     You can display the relevant selection criteria by choosing *Sender parameters*, *Receiver parameters,* or *All parameters*.

   - Note that by selecting personnel numbers for approval, you lock them for processing in other applications. You should therefore try to keep the number of selected personnel numbers and processing time to a minimum.
   - Personnel numbers are not selected if:

   i. You have no authorization for them

   ii. They are locked because they are being processed elsewhere

4. Choose *Execute*.

Issuing Approvals

The *General Hierarchy Display* screen appears. You can expand the nodes to display an overview of the data due for approval.

The following hierarchy levels are displayed:

– *Persons from*

This level shows the data for all the personnel numbers you selected for the entire selection period.

– *Personnel number*

This level shows all the data for one personnel number for the entire selection period.

– *Date*

This level shows all the data for one personnel number for one day.

Traffic-light icons indicate the processing status of the data:

Traffic-light icon	Meaning
	Released for approval
	Approved
	Approval Denied

Records without a traffic-light icon are predecessors, which generated new records when they were changed after being approved.

5. Select the data you want to approve.

The approval view appears.

6. Approve or reject the data.

To do this, select one or more data records and choose *Approve* or *Reject*.

If you reject records, a dialog box appears in which you can enter a rejection reason [Extern]. You define the rejection reasons in your system settings.

7. Save your entries.

Result

You have approved or rejected data records for the employees assigned to you. The approved records are ready for transfer to the target component(s) [Extern].

Approving Data Using SAP Business Workflow

Use

If your profile settings require the data you enter in the time sheet to undergo an approval procedure [Seite 65] using workflow, you can use *SAP Business Workflow* for this purpose.

Prerequisites

SAP Business Workflow [Extern] must be set up in your system settings. For more information, see the SAP Library. Choose *Basis Components -> Business Management -> SAP Business Workflow.*

The units that follow contain the information you require to set up the approval workflow [Seite 71] for the *Time Sheet*.

Procedure

1. Choose *Office* → *Workplace* → *Inbox.*

   Your SAP *Inbox* appears.

2. Choose *Workflow*.

   For each personnel number, there is one entry for data due for approval.

3. Select the personnel number(s) you want to process.

4. Choose *Execute*.

   The *Time Sheet: Approve Times* screen appears. All data assigned the processing status [Seite 184] *Released for approval* is listed.

   If you have selected several personnel numbers, you can process them consecutively.

5. Approve or reject the data.

   To do this, select one or more data records and choose *Approve* or *Reject*.

   If you reject any records, a dialog box appears in which you can enter a rejection reason [Extern]. You must define the rejection reasons in your system settings.

6. Save your entries.

7. Choose *Back*.

   If you have selected several personnel numbers, you can process them consecutively. Repeat steps 5 - 7 until you have processed all the data.

   Your *Inbox* reappears.

Result

You have approved or rejected data records for the employees assigned to you. The approved records are now ready for transfer to the target component(s) [Extern].

Issuing Approvals (CA-TS)

Definition

The *SAP Business Workflow* workflow for issuing approvals is an optional part of the *Time Sheet*, which you can use to support and simplify the approval process.

Use

Working time data that has been recorded in the time sheet can be checked before being transferred to the target component(s). Authorized persons check the data in a separate approval procedure.

The *Issue approvals* workflow supports and simplifies this process: it assigns the unapproved records directly to the person responsible for approving them. This has the following advantages for the person approving the data:

- A constant overview of the data that is ready for approval in his or her work area.
- He or she can monitor the progress of orders and projects.

The workflow for issuing approvals is triggered when the data is released in the time sheet. The specified agent receives notification of records ready for approval as work items in his or her *integrated inbox.*

The workflow for issuing approvals is a single-step workflow. For technical reasons, it cannot be extended to a multistep task at present.

This documentation is only useful to you if you are familiar with the technology used to develop a workflow.

For general information on SAP Business Workflow [Extern], see the SAP Library. Choose *BC - Basis -> Business Management -> SAP Business Workflow.*

Technical Implementation of the SAP Business Workflow for Issuing Approvals

The workflow for issuing approvals is a single-step workflow. For technical reasons, it cannot be extended to a multistep task at present.

Object Type

The interface between SAP functions and the workflow system is based on object technology.

The following information is technical and only relevant if you are interested in the technical aspects of implementation, or if you plan to create your own enhancements.

The SAP standard system contains the following object type:

CATS (Cross-Application Time Sheet)

If you want to modify the workflow, you must implement this object type.

Standard Tasks

There are three standard tasks that you can use to notify persons who approve data that there are times ready for approval. The agent generates the work items in his or her *integrated inbox*, starting the report **RCATSB01** (*CATS: Approve times*). The agent either approves or rejects the time sheet data.

Standard task: Approval

Standard task: TS40007901

Abbreviation: Approval

Name: CATS: Approval

Standard task: Approval2

Standard task: TS20000459

Abbreviation: Approval2

Name: CATS: Approval by Time Administrator

Standard task: Approval3

Standard task: TS20000460

Abbreviation: Approval3

Name: CATS: Approval by Superior

Referenced Object Method, Properties

Object type: CATS

Method: Approve (Approval request)

Properties: None

If you want to modify the workflow, you must use this object method.

Assigning Agents

You can assign agents by:

- Assigning the standard task using an organizational plan object
- Defining the standard task as a *general task.* You are advised to use this option if you have not yet maintained an organizational plan and do not intend creating one.

  For more information, see Preparation and Customizing of the Approval Workflow [Seite 75].
- Determining the agent using the SAP enhancement *Determine Workflow Recipients for Approval* (CATS0008).

  For more information, see the documentation for the SAP enhancement.

Event

This workflow does not have a triggering event, only a terminating event.

Terminating event:

Object type: CATS

Event: COMPLETED

Element: _WI_OBJECT_ID

The event occurs once the agent has approved all of the records entered for a personnel number.

Recommended Activities:

You can currently:

1. Customize the work item text to suit your requirements

   Use the parameters in the container for your copy of the standard task (TS_ENAME - employee/applicant name, for example).
2. Maintain the long text for the work item

   In the long text for the work item, you can describe the approval procedure, for example. You can also include the parameters in the container.

There are two ways to **copy a standard task**:

Technical Implementation of the SAP Business Workflow for Issuing Approvals

1. Copy the **standard task** to another standard task using the *Copy* function in the *Maintain task* transaction. In this case, the task is client-independent.
2. Copy the standard task to create your own **customer task**. In this case, the task is client-dependent.

Preparation and Customizing of the Approval Workflow

Defining the Organizational Plan

Data is entered in the time sheet by an employee or administrator, and then approved by another person with the required authorization. You can choose which SAP users you want to approve the data. They may be the immediate superior of the person who entered the data, or project managers, for example.

If you use the standard task *Approval* (TS40007901), the person who entered the data releases it for approval, and then specifies the appropriate agent (user ID), or enters an object, which the system uses to determine the agent according to the organizational plan.

The person who entered the data can choose between the following organizational plan objects to select the agent:

- Position
- Work center
- Job
- Organizational unit

Several agents can be entered for one object. In this case, the work item appears in the *integrated inbox* of each of these agents. If one of the agents executes the work item, it is no longer displayed in the integrated inbox of the other agents.

If you use the standard tasks *Approval2* (TS20000459) or *Approval3* (TS20000460), the recipient is assigned automatically; the person who entered the data must not therefore enter the agent manually. If your profile has not been set up for the recipient to be determined automatically, the system proposes the time administrator or superior assigned to the person who entered the data as the workflow recipient. The person who entered the data can then confirm the recipient proposed or manually enter an alternative recipient as for the standard task *Approval* (TS40007901).

Assigning Users if You Use an Organizational Plan

To define a suitable organizational plan for the scenario, perform the *Edit Organizational Plan* step in the Implementation Guide (IMG). Choose *Basis → Business Management → SAP Business Workflow*.

For general information on SAP Business Workflow [Extern], see the SAP Library. Choose *BC - Basis -> Business Management -> SAP Business Workflow.*

For more information on setting up workflow, see the Reference Documentation [Extern] for SAP Business Workflow.

Assigning Users if You Do Not Use an Organizational Plan

You can still use *SAP Business Workflow* even if you have not yet maintained your organizational plan. In this case, the person entering data in the time sheet specifies the appropriate agent by entering the agent's SAP user ID.

If you want to use this procedure, you must define the standard task as a *general task.* You can assign all SAP users that are set up in the system to a *general task* .

If you use this method, you can bypass *SAP HR Organizational Management,* which you use to select agents according to functional and organizational criteria. However, not just any SAP user can issue approvals with this procedure: you control who is responsible for issuing approvals using the authorization concept.

Application-Specific Customizing

The approval procedure is an optional part of the time sheet. You can determine whether data entered using a certain data entry profile must undergo an approval procedure when you maintain your profiles.

If you want to trigger the approval procedure using *SAP Business Workflow*, make the following settings for each data entry profile:

1. In the IMG, choose *Time Sheet -> Time Recording -> Set Up Data Entry Profiles.*
2. Select the data entry profile for which you want to set up *SAP Business Workflow*.
3. In the *General settings* section*,* select the *Approval required* field to activate the approval procedure.
4. In the *Workflow* section*,* select the *Workflow approval* field and enter the task ID number in the relevant field.

   In the standard system, you can use the following standard tasks:

   - *Approval* (TS40007901) - The person who entered the data enters the workflow recipient manually.
   - *Approval2* (TS20000459) - If the workflow recipient is determined automatically, he or she is the time administrator assigned to the relevant personnel number.
   - *Approval3* (TS20000460) - If the workflow recipient is determined automatically, he or she is the superior of the employee whose times were recorded.

Using and Linking to Application Functions

Use

SAP Business Workflow is started when data records are released in the time sheet and terminated when all released records have been approved or rejected.

Standard task: Approval (TS40007901) - CATS: Approval

Once persons entering data in the time sheet have released their records for approval, the *Time Sheet: Enter Release Information* dialog box appears. They then manually enter the agent who is assigned to them, or who is responsible for processing the data entered.

One of the agents may still have an unprocessed work item in his or her *inbox* for the person currently entering data. In this case, the person entering the data is displayed a list of the persons already assigned to approve his or her data (or assigned objects). He or she can choose a default value from the list. The record is then added to the work item already in the chosen agent's integrated inbox.

The person who entered the data can also choose the agent manually, by entering either an object from the organizational plan, or the agent's SAP user ID directly.

If the person who entered the data wants to notify the person approving the data of particular activities, special situations, and so on, he or she can enter a short message. By choosing *Continue,* the person who entered the data saves the record and starts the workflow.

If users create records that are to be approved by different agents, they must release the records separately for each agent.

Example:

A user wants to release ten records. Three are to be sent to agent XY, and seven to agent ZZ. The user should proceed as follows:

First, he or she releases the records for agent XY, saves the entries, and enters XY as the agent in the *Time Recording: Enter Release Information* dialog box. Then he or she starts the transaction again and repeats the above procedure for the seven records that are to be sent to agent ZZ.

The records appear in the chosen agent's *integrated inbox.* When the agent executes the work item, the approval report **RCATSB01** (*CATS: Approve times*) is started. The agent uses this report to approve or reject the records. If records are rejected, the agent can enter a rejection reason.

Standard task: Approval2 (TS20000459) - CATS: Approval by Time Administrator

In this standard task, the recipient is determined automatically.

In the standard task *Approval2* (CATS: Approval by time administrator), the records for approval appear in the *inbox* of the time administrator assigned to the employee whose data is to be approved. You assign employees to a time administrator in the *Organizational Assignment* infotype (0001) in *SAP Human Resources.*

Standard task: Approval3 (TS20000460) - CATS: Approval by Superior

In this standard task, the recipient is determined automatically.

Using and Linking to Application Functions

In the standard task *Approval3* (CATS: Approval by Superior) the records for approval appear in the *inbox* of the employee's superior. You assign employees to a superior in *SAP HR Organizational Management.*

If an employee is assigned to several superiors, the records for approval appear in the *inbox* of each superior. Note that in this case, the first superior to execute the work item must process all of the records contained in the work item. The other superiors are no longer able to execute the work item.

Information on Working Times Recorded

Use

There are two ways of obtaining information on the data entered in the time sheet:

When Displaying or Maintaining Recorded Data

There are a number of ways to access information when displaying or maintaining data.

Using the Information System

The Information System provides two reports that you can use to access the recorded data, according to a variety of criteria.

Obtaining Information on Icons and Colors

Use

You can obtain information on a data record or other fields from the icons in the *Line category* field, and the colors of the cells indicating the number of hours.

- All data records that have not yet been released are highlighted in the release view [Seite 11].
- In a totals line, you can display the total hours entered per day. The row is marked with a corresponding icon.

Procedure

1. Call the data entry screen for the time sheet.
2. Choose *Legend*.

   The *Legend* dialog box appears, showing all the colors and icons in the data entry section that are relevant for the current view.
3. Exit the dialog box by choosing *Continue*.

   The data entry view for the time sheet reappears.

Obtaining Information on the Processing Status, Document Number, and Rejection Reason

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Double-click on the record on which you require information.

   The *Cell Information* displays - where available - information on the processing status [Seite 184], document number, and rejection reason [Extern].
3. Exit the dialog box by choosing *Continue*.

   The screen for maintaining or displaying time sheet data reappears.

Calling the Variable View

Use

The variable view allows a select view of the entered data. You can use the variable view to obtain an overview of all data with a particular processing status [Seite 184].

You want to use the variable view to display all approved data in the current data entry period [Extern].

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Choose *Variable view*

   In the *Select status* dialog box, all the available processing statuses are displayed in a list.
3. Select all the processing statuses you want to be displayed in the variable view and choose *Continue*.

   The *Time Sheet: Variable View* screen appears. All data records with the relevant processing status are highlighted.

Displaying the Short Text

Use

In the *Cell Information* dialog box, you can enter a short text for each record you create in the time sheet.

You have documented the following situations in a short text.

- You have performed an activity for which you receive a special bonus (a hazard bonus, for example)
- The employee for whom you are entering data was involved in an industrial accident

Short Text as the Long Text Header

The short text can also be used as the header of any long text [Seite 84] you enter for the record.

Prerequisites

Your Customizing settings must determine that the *Short text* field is shown.

Procedure

1. Call the data entry screen for the time sheet.
2. Double-click on the record for which you want to display the short text.

   The short text is displayed in the corresponding field in the *Cell Information* dialog box.
3. Exit the dialog box by choosing *Continue*.

   The data entry view for the time sheet reappears.

Displaying the Long Text

Use

The time sheet allows you to enter a long text for a data record, if required.

An activity could not be completed in the allotted time, since the required materials were not delivered as scheduled. You have documented these circumstances.

Long texts can be accessed when entering and displaying time sheet data, and can be queried in reporting.

Note that the long texts are not the same as the short message texts that can be entered within the approval procedure as information for the person approving the data.

The long texts are **not** transferred to the other SAP applications. They are not available, for example, as additional information on a confirmation in a *Logistics* application.

If there is a predecessor to a data record, the long text entered for the predecessor is automatically assigned to the new record. A predecessor is a record that is created when you make changes to a record that has already been approved.

Procedure

1. Call the data entry screen for the time sheet.
2. Select the record for which you want to display the long text.
3. Choose *Long text*.

   A dialog box displaying the relevant text appears.
4. Exit the text display by choosing *Back*.

   The data entry view for the time sheet reappears.

Displaying Confirmation Information

Use

Confirmations report on the processing status of orders, networks, operations, suboperations, and individual capacities. This data is relevant for *Logistics* components.

You can use the *Cell Information* dialog box to enter the following additional information on a confirmation:

- Indicator denoting status of confirmation

  You can specify whether the confirmation is a partial or final confirmation. If it is a final confirmation, there will be no further confirmations relating to the operation.

- Forecast values

  You can specify forecast values relating to:

  – The work still to be completed (remaining work)

  – The date on which the operation will be completed (finish date)

  Forecast values are significant when planning deadlines and resources.

  Note that you can only confirm times, not quantities, using the time sheet.

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Double-click on the record on which you want to display additional confirmation information.

   The *Cell Information* dialog box appears.

   – The forecast values are stored in the *Remaining work* (in hours) and *Forecast finish date* fields.

   – The *Final confirmation* field contains the indicator showing the status of the confirmation.

   If the *Final confirmation* field is selected, the confirmation is a final confirmation. If it is not selected, it is a partial confirmation.

3. Choose *Continue*.

   The data entry view for the time sheet reappears.

Result

You have displayed confirmation information on a data record.

Displaying the Predecessor of a Data Record

Use

The *Time Sheet* allows you to change data records even if they have already been approved or written to the interface tables for transfer to the target components [Extern].

The system generates a second data record in this case. This means that there is a new original record, and a predecessor to this original.

The initial version of the record is not lost. You can still display it using the time sheet views and then make a comparison with the changed version.

The predecessor is assigned the processing status [Seite 184] *50 - Changed after approval* or *60 - Canceled*.

You can also call the predecessor of a record using the document display function. You need to know the document number to do this.

For information on the document display function, see Displaying Records Using the Document Display Report [Seite 96].

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Select the record for which you want to display the predecessor.
3. Choose *Extras* → *Predecessor.*

   The *Time Recording Documents* screen appears. The screen displays the predecessor and its essential data.

   If the record you select does not have a predecessor, the system issues a message accordingly.
4. Exit the screen by choosing *Back*.

Result

You have displayed the predecessor of a data record.

Displaying Detailed Information

Use

Depending on your system settings and how you customize your data entry screen, there may be more information on a record than is displayed in the data entry section.

You can use the *Detailed time data* function to display an overview of all existing data.

You receive the following information, for example:

- Working time attributes [Extern] that are not displayed in the data entry section of the time sheet
- Texts that are available for an individual working time attribute
- The target component [Extern] to which the data is transferred

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Select the row on which you require additional information.
3. Choose *Goto* → *Detailed time data*.

   The *Time Sheet: Detail* screen appears. The screen displays all data that has been entered as part of a working time attribute. You can also see the target component to which the data has been transferred, or will be transferred.
4. To exit the screen, choose *Back*.

   The screen for maintaining or displaying time sheet data reappears.

Result

You have displayed detailed information specifying the target component.

Displaying Detailed Information on Working Time Attributes

Use

When entering working time attributes [Extern], you may often require detailed information on an attribute before you decide whether or not to use it.

You want to know whether the specified activity type is maintained in the unit *hours*.

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Double-click on the working time attribute on which you require detailed information.

   An overview screen appears, for example the *Display Activity Type: Basic Screen*. It contains all the essential information on the selected working time attribute.
3. To exit the screen, choose *Back*.

   The data entry view for the time sheet reappears.

Displaying Follow-on Documents and Outstanding Postings

Use

The *Follow-on documents* function is available for all records that are ready for transfer to the target components [Extern] or that have already been transferred.

The function provides information on

- The document number of the selected record
- The target component to which a data record has been transferred
- Outstanding transfers to other target components

You can branch to the target components to display follow-on documents for time sheet data.

- If a confirmation has been entered for the *Project System (PS)* component, you branch to the *Confirmation for the network* display.
- If an attendance for the *HR Time Management* component has been entered for an employee, you branch to the display of a record from the *Attendances* infotype (2002).

Procedure

1. Call the screen for displaying or maintaining the time sheet [Seite 23].
2. Double-click on the record on which you require transfer information.

   The *Cell Information* dialog box appears, If the record selected has already been approved, the *Follow-on documents* function is displayed. You can call this function as soon as the record has been transferred to the target components.
3. Choose *Follow-on documents*.

   The *Follow-On Documents* dialog box appears. It shows postings that have already been made to the target components, as well as any outstanding postings.
4. Double-click on one of the displayed rows.

   You access the selected target component and can obtain detailed information on the relevant record.
5. To exit the target component, choose *Back*.

   The *Follow-On Documents* screen reappears.
6. To exit the *Follow-On Documents* screen, choose *Continue*.

   The *Cell Information* dialog box reappears,
7. To exit this screen, choose *Continue*.

Result

You know which records have been transferred to which target components and which records are still awaiting transfer.

Information System

Use

The information system allows you to obtain an overview of the data entered in the time sheet in one of two ways.

Reporting

In reporting, you can access data records according to a variety of criteria.

Document Display

You can use the document display report to display an overview of the entered data by document number.

You can modify the list output of both reports.

Reports: Information on Time Sheet Data

Use

You can use the report CATSSHOW (*Display Time Sheet Data)* to display time sheet data for individual employees or to find specific data records.

You can use the report to:

- Select records from the time sheet database based on important working time attributes, such as *order number, cost center* or *work center*
- Obtain information on the processing status of the data
- Branch to the follow-on documents for individual records in the target components [Extern]

For more information, see:

Selecting Employees for Reports [Seite 93]

Displaying Reports [Seite 94]

Selecting Employees for Reports

Use

You can select personnel numbers for the report **CATSSHOW** (*Display time sheet data)* in the following ways:

- **Time sheet data**

  You can use this selection to choose data by personnel number. You can use this option to:

  – Display a list of personnel numbers

  – Display data for one employee only

  – Display all data entered for a specific working time attribute

  You want to know how many hours were spent on customer order 2001345 up to a specific key date, and which employees performed the work.

  For the selection criteria, do not make an entry in *Personnel number* field, but specify the *sales order* in the relevant field and enter the data selection period.

- **Time data per organizational structure**

  You can use this selection to choose data by organizational unit.

  You can use this option to:

  – Display results for specific organizational units

  – Select personnel numbers by organizational unit

Procedure

1. Choose *Time Sheet* → *Information System*
2. Choose whether you want to select time sheet data using a personnel number or using the organizational structure.

   The *Display Time Sheet Data* screen appears.
3. Enter your selection criteria.

   You can choose *Receiver parameters*, *Sender parameters,* or *All parameters* to enter additional selection criteria.
4. Choose *Execute*.

Result

You have selected employees by time sheet data or by organizational unit to display time sheet data.

Displaying Reports

Procedure

1. Call the time sheet.
2. Choose *Information system* → *Time sheet data by personnel number* or *Time sheet data by organizational structure*.

   See: Selecting Employees for Reports [Seite 93]
3. Enter the evaluation period.

   In the standard system, the data selection period is restricted to the current day.
4. Enter additional parameters as required.

   You can select data based on other important working time attributes by choosing *Receiver parameters*, *Sender parameters,* or *All parameters*.

   If you specify several working time attributes from the *sender, receiver,* and *all parameters* sections on the selection screen, you are extending rather than limiting the selection.

   Example

   You want to see all records for Peter Miller that have been entered relating to order 2001345 and cost center 2323.

   By entering these numbers in the relevant fields and running the report, you obtain a list of all records that contain at least one of the specified working time attributes. This is shown in the table below:

Pers.No.	Date	Order	Cost Center	Hours
12345	01.02.1997	**2001345**	2444	8
12345	02.02.1997	2001111	**2323**	7
12345	03.02.1997	**2001345**	**2323**	8

5. Choose *Execute*.

   The list output for the report appears. (You can customize the list output to suit your requirements.)
6. If required, display the follow-on documents for the data record.

   To do so, select the record and choose *Follow-on documents.*

   For more information, see Follow-On Documents and Outstanding Postings [Seite 89].
7. Display the long text for a record by choosing *Long text.*
8. Exit the list output by choosing *Back*.

Result

You have used the report CATSSHOW (*Display Time Sheet Data*) to obtain information on data entered in the time sheet according to your chosen selection criteria.

Displaying Records Using the Document Display Report

Use

Once they have been approved, time sheet records are written to one or more target component [Extern] interface tables and assigned a document number. You can use the report RCATSBEL (*Time Sheet Documents and Follow-On Documents*) to display records according to their document number. You can use the integrated *Follow-On Documents* function to display information on the transfer and posting of data to the target components.

Procedure

1. Choose *Time sheet* → *Information system* → *Display single documents.*
2. Enter the document number(s) of the record(s) you want to display and choose *Execute*.

   The *Time Sheet Documents and Follow-On Documents* screen appears, displaying the basic data from the records you have selected.

   You can customize the list output to suit your requirements.
3. If required, display the follow-on documents for the data record.

   To do so, select the record and choose *Follow-on documents.* For more information, see Follow-On Documents and Outstanding Postings [Seite 89].
4. To display the long text for a record, choose *Extras* → *Long text.*

Result

You have used the document display report to display information on a data record.

Time Sheet: Time Leveling (RCATSCMP)

Use

When recording their working times, employees sometimes enter too few or too many hours, or forget to record any working times at all. You can use the report **RCATSCMP** (*Time Sheet: Time Leveling)* to find any such inconsistencies.

If there are employees whose time sheets are inconsistent, you can notify them automatically by mail. You can schedule the report as a background job that sends mails automatically. We particularly recommend this if you have several time sheets to check.

Features

Selection

- If you want to select only those employees who are required to record their times in the time sheet, choose the relevant option.
- You can check time sheets according to
  - Days for which no times have been recorded
  - A number of hours, which you specify based on the selection period
  - An employee's target hours [Extern]

    Depending on the selection type you choose, the dates are displayed for which too few, too many, or no times have been recorded.
- To select time sheets in which too few, too many, or no times have been recorded for individual workdays, choose *Apply selection criteria to each day*. When selecting based on each day, the report reads the factory calendar if:
  - You select time sheets in which no times have been recorded
  - You select time sheets in which less than the number of hours you specify has been recorded.

    If you do not work with target hours, the report takes only the workdays into account for the selection. You assign an employee to a factory calendar in the *Time Sheet Defaults* infotype (0315).

    When you specify the period in the *Time settings* section, you determine whether the report displays days, weeks, or months.
- To select time sheets in which too few, too many, or no times have been recorded for the period specified in the *Time settings* section, choose the *Apply selection criteria to period* option.

  This enables you to check cumulated time sheets for several weeks or months. In the *Time settings* section, you can choose to have the system propose the settings from the data entry profile that was used to enter the working times.
- If you work with target hours, you determine these in the *Target hours* section. Once again, you can choose to have the system propose the settings from the data entry profile that was used to enter the working times.

Output

- If you want to display all time sheets for the selected period, the time sheets for which too few or too many hours have been recorded (based on your selection criteria) are highlighted in color.
- If you choose the *Send mail* option, the system notifies employees whose time sheets are selected automatically by mail. The mail appears in the employee's SAP *inbox.* For employees to receive the mail, you must define them as users in the *Communication* infotype (0105), subtype *System user name* (0001).
- Depending on your authorization profile, you can choose a record and switch to either the display or maintenance screen for the time sheet from the report output list. The system calls the time sheet with the data entry profile you entered for proposal in the *Time settings* or *Target hours* section.

For more information, see: Examples: Checking Time Sheets [Seite 99]

Examples: Checking Time Sheets

Checking time sheets for users of HR

You want to check whether your employees fulfilled their target hours for each day, or whether any employees recorded too many hours. You want to notify by mail any employees whose time sheets contain inconsistencies.

1. Specify the period and criteria according to which you want the system to select the personnel numbers assigned to you.
2. In the *Time sheet selection* section, select *Select according to target hours* and *Too many recorded hours*.
3. In the *Selection control* section, choose *Apply selection criteria to each day*.
4. In the *Time settings* and *Target hours* sections, we recommend you have the system propose the settings from the data entry profile the employees used to enter their working times. Enter the name of the profile in the relevant field and choose *Propose.*

   The system copies the required profile settings to the report.
5. Choose *Send mail.*
6. Choose *Execute*.

The report selects time sheets in which, based on each day, too many hours have been recorded. The system notifies the employees concerned by mail.

Checking time sheets for non-users of HR

You want to check that your employees have recorded at least 20 working hours per week. You want to notify by mail any employees who have recorded less than 20 hours per week.

1. Specify the selection period and the criteria according to which you want the system to select the personnel numbers assigned to you.
2. In the *Time sheet selection* section, select *Select according to specified number of hours* and *Less than,* and enter **20** in the *recorded hours* field.
3. In the *Selection control* section, select *Apply selection criteria to period*.
4. In the *Time settings* section, enter weekly data entry as the period type .
5. Choose *Send mail.*
6. Choose *Execute*.

The report selects time sheets in which less than 20 hours per week have been recorded. The system notifies the employees concerned by mail.

Selecting time sheets in which no times have been recorded

If any employees have forgotten to record their working times, you can use this report to select the relevant time sheets.

1. Specify the selection period and the criteria according to which you want the system to select the personnel numbers assigned to you.
2. Select *Select time sheets in which no times have been recorded*.

Examples: Checking Time Sheets

3. Select *Apply selection criteria to each day.*

   If you choose *Apply selection criteria to period*, note that the system only displays time sheets in which hours have not been recorded for any of the days in the whole period. If hours have been recorded for just one day in the period, the period is not selected.

4. In the *Time settings* section, specify the period the report should use to display the selected time sheets.

5. Choose *Execute*.

The report selects time sheets in which, for each workday, no times have been recorded.

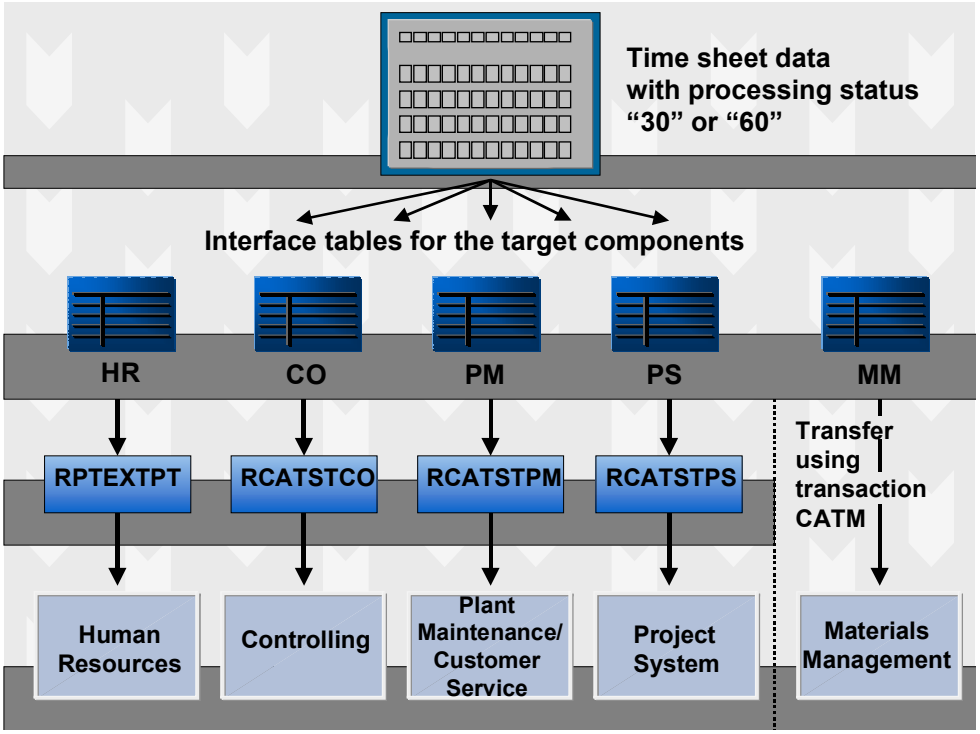
Process for Transferring Data to the Target Components

Purpose

You use the *Time Sheet* to record data that can be relevant for several SAP System components. Some employees, for example, record data confirming a *Project System* network. Others use the *Time Sheet* to enter time data for *HR Time Management.* In some cases, employees record data that is relevant for several target components at once.

You transfer time sheet data to the target components using data transfer reports or, for *Materials Management,* a transaction. The graphic below illustrates the technical processes involved in transferring data to the target components.

Process flow



1. The system saves time sheet data to the CATSDB database table for the *Time Sheet*.
2. The system writes time sheet data assigned the processing status "30" (*Approved*) and "60" (*Canceled*) to the interface tables in:
   - *Human Resources* (PTEX2000 and PTEX2010)
   - *Controlling* (CATSCO)
   - *Plant Maintenance/Customer Service* (CATSPM)
   - *Project System* (CATSPS)

- *Materials Management* (CATSMM)

The system determines which are the relevant interface tables based on the record's working time attributes [Extern].

3. When you run the data transfer reports, the time sheet data is transferred to the target components *Human Resources* (HR), *Controlling* (CO), *Plant Maintenance/Customer Service* (PM/CS), and *Project System* (PS).

   You can use the following data transfer reports for individual components:

   - RPTEXTPT for Human Resources [Seite 137]
   - RCATSTCO for Controlling [Seite 110]
   - RCATSTPM for Plant Maintenance/Customer Service [Seite 118]
   - RCATSTPS for Project System [Seite 125]

   To enable you to transfer data to HR, CO, PM/CS, and PS in one step, an additional report for all components [Seite 105] is available.

   Note that you transfer data to *Materials Management* using transaction CATM.

Result

You have transferred time sheet data to the target components.

For more information on the tables affected by this process, see Technical Background to the Time Sheet [Seite 173].

Transfer of Time Sheet Data to the Target Components

Use

The *Time Sheet* is an independent SAP application which supplies other SAP applications with data on the duration, quantity, and reference object of work performed.

Features

The data you enter in the time sheet is not immediately transferred online to the target components but is first stored in the central database table for the time sheet CATSDB. This procedure has the following advantages:

- You can control which data is transferred, when, and how
- You do not require the usual authorizations for the target component transactions
- Improved system performance
- The working time attributes [Extern] determine which records are transferred to which components.

You can use the following combinations for data transfer:

Controlling (Int. acty alloc.)	+	Human Resources		
Controlling (Stat. key figs)	+	Human Resources		
Controlling (Stat. key figs)	+	Human Resources	+	External Services Mgmt
Human Resources	+	External Services Mgmt		
Human Resources	+	Plant Maintenance/Customer Service		
Human Resources	+	Project System		
Human Resources	+	External Services Mgmt	+	Plant Maintenance/ Customer Service
Human Resources	+	External Services Mgmt	+	Project System
External Services Mgmt	+	Plant Maintenance/Customer Service		
External Services Mgmt	+	Project System		

Ability to track data records

Data which has been entered in the time sheet and transferred to the target components is assigned a unique document number as soon as it has been approved. The original documents stored in the time sheet database (CATSDB) and the document number, which is always copied to the target components, mean you can always track the data.

Transfer of Time Sheet Data to the Target Components

You can find out a record's document number by accessing the cell information [Seite 81] in the data entry view. If the Follow-on document [Seite 89] field appears, you can display additional information.

You can also view a specific document directly using the *Time Sheet Documents and Follow-On Documents* report (RCATSBEL). To access the report, choose *Information system → Display single documents.*

Transferring data

You can transfer data to each target component separately. This allows you to set different transfer intervals for the different components.

- To document work progress in *SAP Logistics* and obtain dynamic results, you should transfer data daily.
- You should transfer data to HR immediately after it is released or approved.

The system issues a log detailing errors that occurred during transfer. Special postprocessing functions allow you to correct errors in the target component.

In addition to the component-specific transfer reports, a report for all components [Seite 105] is available. Using this report, you transfer the data to several components in one step. You can currently use this report to transfer data to all target components except *Materials Management (MM-SRV).*

Reorganizing interface tables

You should regularly delete time sheet records from their respective interface tables once they have been transferred to the target components. This ensures optimal performance of the data transfer reports you use.

For more information, see: Reorganizing Interface Tables [Seite 166].

Data Transfer to All Components

Use

You can use report RCATSTAL (*Time Sheet: Transfer to Target Components*) to transfer time sheet records to the following target components in one step:

- *Human Resources* (HR)
- *Controlling* (CO)
- *Project System* (PS)
- *Plant Maintenance/Customer Service* (PM/CS)

At present, you cannot use the report to transfer data to *Materials Management* (MM).

To call the report choose *Time sheet* → *Transfer* → *All components*.

Integration

Report RCATSTAL combines the functions of the data transfer reports for *Human Resources, Controlling, Project System,* and *Plant Maintenance/Customer Service*. Any selection options that apply to certain target components only are indicated accordingly.

If you have two separate systems installed, for *Human Resources (HR)* on the one hand and for *Logistics* and *Accounting* on the other, you must run the report for transferring data to *HR* in the *HR* system. You can then transfer data to *Controlling*, *Project System*, and *Plant Maintenance*/*Customer Service* in one step in the other system.

Prerequisites

To be able to run the report, you must have

- Made all the component-specific Customizing settings in the target components
- Been assigned authorization to execute the relevant HR, CO, PM/CS, and PS data transfer reports

Features

Selection

Report RCATSTAL enables you to select data according to your employees' organizational assignment. You can select data for all employees assigned to a specific cost center, for example. This option is not available if you use the separate data transfer reports for the individual target components.

The table below lists the other selection criteria for report RCATSTAL. In each case, the criteria are only valid for specific components.

Option	Meaning	Valid for
Order	Maintenance or service order	PM/CS
Network	Network number	PS

Data Transfer to All Components

Document number	Document number	CO, PM/CS, PS
Posting date	The transferred records are posted with the date entered.	CO, PM/CS, PS
Posting date for cancellation	The cancelled records are posted with the date entered.	PM/CS, PS
Number of tasks	For optimum performance, you can distribute the data you want to transfer over several tasks. You specify how many tasks in this field.	PM/CS, PS
Number of lock attempts	If another user is processing an order or network when you run the report, the order or network is locked. You can enter a *number of lock attempts* for the report. The report then attempts to perform the transfer as many times as you have specified.	PM/CS, PS
Log	You obtain a detailed list of the transfers made to the relevant components.	HR, PM/CS, PS
Test run	The data is read from the interface tables but not transferred.	HR, PM/CS, PS
Repeat transfer	If errors occurred during transfer, because a personnel number was locked, for example, you can transfer the records again.	HR
Transfer without dates	You want to just enter services, without this affecting the scheduling of the network.	PS
Ignore warnings	We recommend this option if you have scheduled the report as a background job. It means that data is still posted even if it causes warnings to be issued during transfer. The report displays any relevant warning messages in the transfer log. If necessary, you must postprocess the data. If you do not select this option, no more data is posted from the time the warning is issued.	CO

For more detailed information on these options, refer to the relevant field help.

Output

The report transfers the data for each component separately and consecutively.

If you execute the report online, the system displays how many records were posted in a target component once the transfer to that component is complete. If you have selected the relevant option, the system issues a detailed transfer log. Choose *Back* to confirm the display or log and proceed with the transfer to the next target component.

Normally you will run the report as a background job however. Then you do not need to confirm each transfer. If you selected the *Log* option for your background processing, the system generates a spool list for each component.

If errors occurred during transfer, you must postprocess them, either from the *Time Sheet* or in the relevant target component. For an overview of the errors that occurred, you must have selected the *Log* option.

If you postprocess errors in the relevant target component and not in the *Time Sheet*, the time sheet data is no longer consistent with the data in the target component.

Activities

1. Call the report by choosing *Time sheet* → *Transfer* → *All components*.
2. Enter the period and organizational criteria for the data you want to transfer.
3. Specify the *target components* to which you want to transfer the data.
4. Select additional selection options as required.
5. Choose *Execute*.

Data Transfer to Controlling (CO)

Purpose

You can transfer time sheet data to *Controlling* (CO) for internal activity allocation [Extern]. A data transfer report generates CO documents [Extern] from the time sheet data. Depending the Customizing settings you make in the Fill CO Documents [Extern] step of the Implementation Guide, the system

- Generates one CO document for each transferred record, or
- Cumulates or summarizes the records and writes them to one or several CO documents

Data can be transferred to *Controlling* directly or via transfer to another component (for example, as confirmations from *Logistics*).

Prerequisites

You must be assigned authorization for the *Enter Activity Allocation* transaction (KB21)

Process flow

1. You must release or, if you integrate the approval procedure, approve the data.
2. The system writes the data to the CATSCO interface table. You must have made an entry in one or more of the following fields:

Field Name	Data Element	Short Description	
RKOSTL	EKOSTL	Receiver cost center	or
RPROJ	EPROJ	Receiver WBS element	or
RKSTR	EKSTR	Receiver cost object	or
RKDAUF	EKDAU	Receiver sales order	or
RAUFNR	EAUFNR	Receiver order	or
RNPLNR	NW_AUFNR	Receiver network	or
RPRZNR	EPRZNR	Receiver business process	

3. The data transfer report Time Sheet: Transfer to Controlling [Seite 110] (RCATSTCO) transfers the data with the above account assignment from the interface table to *Controlling*.
4. The report generates CO documents from the data records. Records containing errors are not posted.
5. The report generates a log showing which records were posted.

Result

You have transferred data from the time sheet to *Controlling* for internal activity allocation.

Transfer to Controlling

Use

You can use report RCATSTCO (*Time Sheet: Transfer to Controlling*) to post approved [Seite 184] or canceled [Seite 185] records from the *Time Sheet* to *Controlling*. The report generates CO documents [Extern]. The time sheet data you transfer to *Controlling* triggers internal activity allocation in *Controlling*.

If necessary, you can run several transfers in parallel. If you do this, note the following:

- If you select by personnel number only, the report locks the selected personnel numbers in CATSCO. It locks up to a maximum of 100 personnel numbers. If you select more than 100 personnel numbers, the report locks the whole of CATSCO, and you cannot run any parallel transfers.
- If you select by date only, you can enter different periods for each transfer. The different periods should not overlap, however. If the report selects more than 100 working days with time sheet data, the report locks CATSCO. You are then no longer able to run any parallel transfers.
- If you select by personnel number and date, the entries you make under *Personnel number* override those you make under *Date*. Once again, if you select more than 100 personnel numbers, the report locks the whole of CATSCO, and you cannot run any parallel transfers.

If you change a record in the *Time Sheet* that has already been transferred, the system generates a cancellation record in CATSCO. The report posts the record as a negative record in *Controlling*.

To call the report, choose *Time sheet* → *Transfer* → *Accounting*.

Integration

Depending on your settings in the Fill CO Documents [Extern] step of the Implementation Guide, the report generates one CO document per transferred record or summarizes several records into one CO document.

Activity allocation in *Controlling* can be triggered indirectly, that is even if you do not transfer records from the *Time Sheet* to *Controlling* directly. This may be the case if you transfer data to another component. Confirmations from *Logistics,* for example, trigger activity allocation in *Controlling*.

Prerequisites

You must be assigned authorization for the *Enter Activity Allocation* transaction (KB21)

Features

Selection

- You select the records you want to transfer by personnel number, period, or document number.
- If you do not want the current date to be the posting date of the transferred records, you can manually enter the posting date you require.

- If you have scheduled the report as a background job, you should select the *Ignore warnings* option. Then the report posts the data even if the system issues warning messages. The report displays these warnings in the log once the transfer is complete. If you do not select the *Ignore warnings* option and the report issues a warning during transfer, no further data is posted from the time the warning is issued. In this case, you must postprocess the relevant data in the *Time Sheet* and run the transfer again.

  If necessary, you can run several transfers in parallel. For more information, see the report documentation.

Output

Once the transfer is complete, the report generates a log. You can use the log to see which records were posted. If errors occurred, you must postprocess the incorrect data in the *Time Sheet*.

Entry of Statistical Key Figures

Use

You can use the Time Sheet to enter statistical key figures [Extern], which you can then transfer to *Controlling*. In *Controlling,* the statistical key figures are used as the basis for internal allocations and within the key figure analysis framework.

Some of your employees work as field employees. You pay the travel costs for these employees but want to invoice them to the relevant customer. To do this, you create the statistical key figure "Kilometers" and the wage type "Travel costs". The employees use the wage type and the statistical key figure to record their travel details in the time sheet. Your employees are reimbursed for their travel costs, which are calculated using the wage type, by payroll. You transfer the data for the "Kilometers" statistical key figure to *Controlling* (CO). The "Kilometers" statistical key figure can then be used as the basis for resource-related billing [Extern]: This process enables you to invoice the customer for the travel costs.

Prerequisites

You can only use statistical key figures if you implement *Controlling*.

You must show the following fields in the field selection [Extern] for each data entry profile that is to be used to enter statistical key figures:

- *Statistical key figure*
- A receiver object (for example, *Receiver cost center, Receiver order...*)
- Optional display field: Internal unit of measure

Features

You transfer the statistical key figures entered in the time sheet to *Controlling* using the RCATSTCO (*Time Sheet:* Transfer to Controlling [Seite 110]) data transfer report. In Controlling, you can use the data for internal allocations or in key figure analysis.

For more information on statistical key figures, see the SAP Library. Choose *Financials* → *Controlling (CO)* → *Cost Center Accounting* → *Master Data in Cost Center Accounting* → Statistical Key Figures [Extern].

Activities

Check whether the statistical key figures you want to use in the Time Sheet have been created in *Controlling*. If necessary, create the statistical key figures you require.

Time Sheets in Cost Object Controlling

Use

The cross-application time sheet (CATS) enables you to transfer personnel costs to a cost object in *Cost Object Controlling*.

Integration

The time sheet is a cross-application function. It transfers data to other application components such as *Controlling*.

Prerequisites

Make the required settings in Customizing under *Cross-Application Components* → Time Sheet [Extern].

Features

You can use time sheets for the following purposes:

- Processing your own working times
- Processing the working times of the employees assigned to you
- Approving working hours
- Releasing working hours

You can use time sheets to record personnel costs for the following cost objects:

- Production orders, process orders, and product cost collector
- Sales document items
- Cost object IDs

  Cost object IDs can be used as:

  – Cost object nodes in a cost object hierarchy in *Product Cost by Period*

  – General cost objects in *Costs for Intangible Goods and Services*

Activities

Transferring the data collected on the time sheet to *Controlling* (CO) debits the cost objects with actual costs in accordance with the recorded working time.

See also:

For detailed information on time sheets, refer to the following:

- The document *CA* - Time Sheet [Extern].
- The Implementation Guide (IMG) of *Cross-Application Components*

Actual Cost Determination for Time Sheet Hours

Use

The working times entered in the time sheet are not valuated until they have been transferred to *Controlling (CO).* You can transfer the data either directly or indirectly. The actual costs incurred are determined in *Controlling*.

In the time sheet, the working times entered are valuated neither for individual persons nor according to exact times. It cannot determine, for example, whether the working times entered are overtime hours or public holiday work, or whether an activity should be valuated using a higher rate because the employee has exceeded the requirements of his or her normal activity.

Features

For the determination of actual costs in *Controlling*, you can choose between the following variants:

- Determining costs using the plan activity price of an activity type

  The actual costs are determined using the plan activity price of the *activity type*. The price of the activity type can be defined per period and cost center, depending on your settings in *Controlling*. This is the standard procedure.

  The standard procedure does not take account of activity prices for either individual employees or specific days. You can include activity prices in the valuation by

- Entering activity prices using the time sheet

  The hours worked are valuated on the basis of an hourly activity price. The activity price is assigned to an activity type. This results in inconsistencies between the evaluation based on the activity price entered and the evaluation based on the plan activity price defined in *Controlling*. The system identifies these inconsistencies in *Controlling*.

- Determining the activity price using an SAP enhancement

  You can determine the activity price per hour using the SAP enhancement CATS0002 (*Supplement Recorded Data*), and valuate the actual hours based on this activity price. This results in inconsistencies between the valuation based on the activity price entered and the valuation based on the plan activity price in *Controlling*. The system identifies these inconsistencies in *Controlling*.

  Depending on the SAP enhancement, the hourly activity prices can be derived from *Payroll* (if you implement *SAP Human Resources),* for example, or determined using customer-specific formulas.

- Taking account of overtime, bonuses, and so on

  The above information shows that activities performed by an employee can only be differentiated in *Controlling* if you have assigned them different activity prices.

  If you have different categories of working hours for one day, you must enter a corresponding number of time sheet records. They are assigned different activity prices or activity types depending on the variant used to determine the actual costs.

In *SAP Human Resources,* overtime, bonuses, and so on are determined in *Time Evaluation* or *Payroll*. In these components, the valuation is based on the relevant collective agreement or company provisions.

Data Transfer to Plant Maintenance/Customer Service (PM/CS)

Purpose

Time sheet data can be transferred to *Plant Maintenance* and Customer Service [Extern] for confirmations. You transfer the data using a data transfer report, which generates confirmation documents in the target components.

Prerequisites

You must have made the required settings for confirmations in Customizing for *Plant Maintenance* and *Customer Service.*

Process flow

1. You must release or, if you integrate the approval procedure, approve the data.
2. The system writes the data to the CATSPM interface table. You must have made an entry in the following fields:

Field Name	Data Element	Short Description	
RAUFNR	EAUFNR	Receiver order	and
VORNR	VORNR	Operation number	or
UVORN	UVORN	Suboperation	

3. The data transfer report Time Sheet: Transfer to PM / CS (RCATSTPM) [Seite 118] transfers the data with the above account assignment from the interface table to *Plant Maintenance* or *Customer Service.*
4. The report generates confirmations for a maintenance or service order

   If *service entry* has also been performed for a record, the data is transferred to PM/CS without the relevant costs being determined. For more information, see: Service Entry with Reference to an Operation [Seite 133]

   If data is entered together with information on a confirmable order and with a bonus wage type, the record is transferred to *Controlling* (CO) and *Human Resources* (HR), but not to PM/CS. The system posts the confirmation information as an internal activity allocation in CO and the bonus wage type is processed further in HR. The reason for this is that a record with a bonus wage type only contains additional information that is relevant for time data (for example, Sunday bonus, dirty-work bonus) and does not contain information on hours that is relevant for a confirmation.
5. The report generates a log showing whether all records were posted.
6. If there are records with errors, an error pool is generated. You must process the error pool, which is displayed in the log, as even records containing errors are marked as “transferred”.

7. You must correct records that could not be posted, either in the *Time Sheet* by choosing *Transfer -> Plant maintenance/Customer service -> Postprocessing*, or directly in the *Plant Maintenance* or *Customer Service* components.

   For postprocessing, you must have authorization for the transaction *PM Order Confirmation: Collective Confirmation* (IW44).

See also:

PS/PM/CS: Creating an Index for Table AFRU [Seite 127]

PS/PM/CS: Postprocessing Transferred Data [Seite 128]

Result

You have transferred time sheet data to *Plant Maintenance* or *Customer Service* for confirmations.

Transfer to Plant Maintenance/Customer Service

Use

You can use report RCATSTPM (*Time Sheet: Transfer to Plant Maintenance/Customer Service*) to transfer time sheet data to *Plant Maintenance* or *Customer Service* (PM/CS). The report generates confirmation documents for maintenance or service orders and, if necessary, goods movements for backflushes.

You can transfer time sheet data that is assigned the processing status [Seite 184] *30* (*Approved*) or *60* (*Canceled*). The report transfers the data from the interface table CATSPM to PM/CS.

To call the report, choose *Time sheet* → *Transfer* → *Plant maintenance/Customer service* → *Transfer*.

Integration

When the system generates confirmations for maintenance or service orders, it triggers activity allocation in *Controlling* at the same time.

Recommendation

Transferring canceled data to PM/CS can adversely affect system performance. When the report transfers canceled records, it reads all the confirmations for the relevant operation for each cell that has been changed in the time sheet. The burden on the system increases accordingly.

We recommend therefore that you

- Use only orders that have been created for a relatively short period of time (for example, a standing order with a runtime of one year)

  The more confirmations generated for an order, the poorer the report's performance when canceling confirmations.

- Specify in the *Number of tasks* field that the report generates several tasks for each transfer, if you have performance problems

Features

Selection

- Select the records you want to transfer by personnel number, date, order number or document number.
- If you do not want the current date to be the posting date of the transferred records, you can manually enter the posting date you require. You can also determine the posting date you require for cancellations.
- In the *Number of tasks* field, specify the number of tasks into which you want the data transfer to be divided. This applies particularly if you are processing large volumes of data.
- If another user is processing an order when you run the report, the order is locked. You can enter a *number of lock attempts* for the report. The report then attempts to perform the transfer as many times as you have specified.
- For a detailed list of the data that has been transferred, select the *Log* option.

- If you only want to check which data can be successfully transferred and if any data could generate errors, select *Test run*.

Output

If you select the *Log* option, the system displays a log after the transfer is complete.

If some of the records could not be posted in *Plant Maintenance*/*Customer Service*, the report generates an error pool. The records containing errors are flagged as transferred. You can postprocess them in *Plant Maintenance/Customer Service*. Note if you do this that the data in *Plant Maintenance/Customer Service* is no longer consistent with the data in the *Time Sheet*.

PS/PM/CS: Creating an Index for Table AFRU

Use

Depending on the volume of confirmations you want to enter for *Plant Maintenance (PM)* or *Project System (PS)* using the *Time Sheet*, you may want to create an index for the document number (CATSBELNR) in table AFRU. This improves system performance when the data is transferred to the target components.

Note, if you choose to create an index, that confirmations from the *Production Planning and Control (PP)* component are also saved in table AFRU.

If there are considerably more PP confirmations than confirmations from PM, PS, and CS, it may be that your database system does not use the index.

Procedure

The index in table AFRU is not active in the standard system. To activate it, proceed as follows:

1. Choose *Tools → ABAP Workbench → Development → ABAP Dictionary.*
2. Enter the object name AFRU and select the *Database table* field.
3. Choose *Change*.

   The *Dictionary: Maintain Table* screen appears.
4. Choose *Goto → Indexes.*

   The *Indexes for Table AFRU* dialog box appears.
5. Select the *Index with CATS doc. number* option.

   The *Dictionary: Maintain Index* screen appears.
6. Select the *Index on all database systems* field.
7. Choose *Activate*.

Result

You have created an index for table AFRU.

PS/PM/CS: Postprocessing Transferred Data

Prerequisites

If errors occurred when transferring data for confirmations, the data must be postprocessed in the relevant target component. The system displays records containing errors in an error pool for this purpose. For each transfer. the pool contains an entry for records that could not be posted.

Even data records containing errors are flagged as *Transferred* in the time sheet.

You can process the error pool from the target component. You can also access it directly from the time sheet however.

To postprocess records, you require authorization for the following transactions:

- Project System (PS): Network Confirmation: *Collective Confirmation* (CN27)
- Plant Maintenance/Customer Service (PM/CS): PM Order Confirmation: *Collective Confirmation* (IW44).

Errors that occur when determining costs and checking budgets do not feature in the error pool. The system places the errors in a separate postprocessing pool for cost determination [Extern]. The same applies to errors related to goods movements [Extern]. You process them as normal in the target component.

Procedure

1. Choose *Time sheet -> Transfer -> Plant maintenance/Customer service* or *Project system -> Postprocessing,* depending on which target component you want to process.

   The system does not flag entries that have already been processed. We recommend you process the entries in a specific sequence so that you can keep track of your progress.

2. Select an entry.

   The *Confirmation for Network: Collective Confirmation* or *PM Order Confirmation: Collective Confirmation screen appears.*

3. Select a confirmation.

4. Choose *Check confirmations*.

   The messages which appear provide information on the cause of the error.

   Choose *Display errors* to display the cause of, but not yet process, the error.

5. Correct the confirmation.

6. Process any other confirmations containing errors.

7. Save the collective confirmation.
8. Choose *Back*.

   The error pool reappears.
9. Delete the entry you have just processed.
10. If necessary, continue processing other entries.

Result

You have postprocessed the data you transferred to *Project System* or *Plant Maintenance/Customer Service* in the target components.

Data Transfer to Project System (PS)

Purpose

Time sheet data can be transferred to Project System (PS) [Extern] for confirmations. You transfer data using a data transfer report, which generates confirmation documents [Extern] in PS.

Prerequisites

The control key must specify that the operation may be confirmed. If this is not the case, the data is written to the *Controlling (CO)* interface table CATSCO and then transferred to *Controlling*.

You must make the required settings for confirmations in Customizing for *Project System.*

Process flow

1. You must release or, if you integrate the approval procedure, approve the data.
2. The system writes the data to the CATSPS interface table. You must have made an entry in the following fields:

Field Name	Data Element	Short Description	
RNPLNR	NW_AUFNR	Network number	and
VORNR	VORNR	Operation number	or
UVORN	UVORN	Suboperation	

3. The data transfer report *Time Sheet: Transfer to Project System*).
4. The report generates network confirmations from the data.

If you have *entered a service* for a data record, the data is transferred to PS without the costs being determined. For more information, see: Service Entry with Reference to an Operation [Seite 133]

If data is entered together with information on a confirmable network and with a bonus wage type, the record is transferred to *Controlling* (CO) and *Human Resources* (HR), but not to PS. The system posts the confirmation information as an internal activity allocation in CO and the bonus wage type is processed further in HR. The reason for this is that a record with a bonus wage type only contains additional information that is relevant for time data (for example, Sunday bonus, dirty-work bonus) and does not contain information on hours that is relevant for a confirmation.

5. The report generates a log showing whether all records were posted.
6. If there are records with errors, an error pool is generated. You must process the error pool, which is displayed in the log, as even records containing errors are marked as “transferred”.

7. You must correct records that were not posted, either from the *Time Sheet* by choosing *Transfer -> Project System -> Postprocessing*, or directly from the *Project System* component.

For postprocessing, you must have authorization for the transaction *Network Confirmation: Collective Confirmation* (CN27).

See also:

PS/PM/CS: Creating an Index for Table AFRU [Seite 127]

PS/PM/CS: Postprocessing Transferred Data [Seite 128]

Result

You have transferred time sheet data to *Project System* for confirmations.

Transfer to Project System

Use

You can use report RCATSPS (*Time Sheet: Transfer to Project System*) to transfer time sheet data to *Project System*. The report generates confirmations for networks and, if necessary, goods movements for backflushes.

You can transfer time sheet data that is assigned the processing status [Seite 184] *30* (*Approved*) or *60* (*Canceled*). The report transfers the data from the interface table CATSPS to *Project System*.

To call the report, choose *Time sheet* → *Transfer* → *Project system* → *Transfer*.

Integration

When the system generates confirmations for networks, it triggers activity allocation in *Controlling* at the same time.

Prerequisites

The control key must specify that the operation may be confirmed. If it does not, the data is transferred to *Controlling*.

Recommendation

Transferring canceled data to Project System can adversely affect system performance. When the report transfers canceled records, it reads all the confirmations for the relevant operation for each cell that has been changed in the time sheet. The burden on the system increases accordingly.

We recommend therefore that you

- Use only networks that have been created for a relatively short period

  The more confirmations generated for a network, the poorer the report's performance when canceling confirmations.

- Specify in the *Number of tasks* field that the report generates several tasks for each transfer, if you have performance problems

Features

Selection

- You select the records you want to transfer by personnel number, period, network number or document number.
- If you do not want the current date to be the posting date of the transferred records, you can manually enter the posting date you require. You can also determine the posting date you require for cancellations.
- For optimum performance, you can distribute the data you want to transfer over several tasks. You specify how many tasks in the relevant field.

Transfer to Project System

- If another user is processing a network when you run the report, the network is locked. You can enter a *number of lock attempts* for the report. The report then attempts to perform the transfer as many times as you have specified.
- If you want to enter services for an operation without this affecting the scheduling of the network, select *Transfer without dates*. The report then transfers the records without the actual start and finish.
- For a detailed list of the data that has been transferred, select the *Log* option.
- If you only want to check which data will be successfully transferred and if any data will generate errors, select *Test run*.

Output

If you select the *Log* option, the system displays a log after the transfer is complete.

If the report was not able to post some of the records in *Project System*, it also generates an error pool. The records containing errors are flagged as transferred. You can postprocess them in *Project System*. Note however if you do this that the data in *Project System* is no longer consistent with the data in the *Time Sheet*.

PS/PM/CS: Creating an Index for Table AFRU

Use

Depending on the volume of confirmations you want to enter for *Plant Maintenance (PM)* or *Project System (PS)* using the *Time Sheet*, you may want to create an index for the document number (CATSBELNR) in table AFRU. This improves system performance when the data is transferred to the target components.

Note, if you choose to create an index, that confirmations from the *Production Planning and Control (PP)* component are also saved in table AFRU.

If there are considerably more PP confirmations than confirmations from PM, PS, and CS, it may be that your database system does not use the index.

Procedure

The index in table AFRU is not active in the standard system. To activate it, proceed as follows:

8. Choose *Tools → ABAP Workbench → Development → ABAP Dictionary.*
9. Enter the object name AFRU and select the *Database table* field.
10. Choose *Change*.

    The *Dictionary: Maintain Table* screen appears.
11. Choose *Goto → Indexes.*

    The *Indexes for Table AFRU* dialog box appears.
12. Select the *Index with CATS doc. number* option.

    The *Dictionary: Maintain Index* screen appears.
13. Select the *Index on all database systems* field.
14. Choose *Activate*.

Result

You have created an index for table AFRU.

PS/PM/CS: Postprocessing Transferred Data

Prerequisites

If errors occurred when transferring data for confirmations, the data must be postprocessed in the relevant target component. The system displays records containing errors in an error pool for this purpose. For each transfer. the pool contains an entry for records that could not be posted.

Even data records containing errors are flagged as *Transferred* in the time sheet.

You can process the error pool from the target component. You can also access it directly from the time sheet however.

To postprocess records, you require authorization for the following transactions:

- Project System (PS): Network Confirmation: *Collective Confirmation* (CN27)
- Plant Maintenance/Customer Service (PM/CS): PM Order Confirmation: *Collective Confirmation* (IW44).

Errors that occur when determining costs and checking budgets do not feature in the error pool. The system places the errors in a separate postprocessing pool for cost determination [Extern]. The same applies to errors related to goods movements [Extern]. You process them as normal in the target component.

Procedure

11. Choose *Time sheet -> Transfer -> Plant maintenance/Customer service* or *Project system -> Postprocessing,* depending on which target component you want to process.

    The system does not flag entries that have already been processed. We recommend you process the entries in a specific sequence so that you can keep track of your progress.

12. Select an entry.

    The *Confirmation for Network: Collective Confirmation* or *PM Order Confirmation: Collective Confirmation screen appears.*

13. Select a confirmation.

14. Choose *Check confirmations*.

    The messages which appear provide information on the cause of the error.

    Choose *Display errors* to display the cause of, but not yet process, the error.

15. Correct the confirmation.

16. Process any other confirmations containing errors.

17. Save the collective confirmation.
18. Choose *Back*.

    The error pool reappears.
19. Delete the entry you have just processed.
20. If necessary, continue processing other entries.

Result

You have postprocessed the data you transferred to *Project System* or *Plant Maintenance/Customer Service* in the target components.

Data Transfer to Materials Management (MM-SRV)

Purpose

Time sheet data can be transferred to Materials Management (MM-SRV) [Extern] for service entry.

Prerequisites

Time sheet data can be successfully transferred only if the purchase order *does not* have an outline.

You must be assigned authorization for the *Maintain Service Entry Sheet* transaction (ML81).

Process flow

1. You must release or, if you integrate the approval procedure, approve the data.
2. The system writes the data to the CATSMM interface table. You must have made an entry in the following fields:

Field Name	Data Element	Short Description	
SEBELN	SEBELN	Sending purchase order	or
SEBELP	SEBELP	Sending purchase order item	or
LSTNR	LSTNR	Service number	

If you specify a maintenance order or a network in addition to the account assignment, a confirmation is generated in *Plant Maintenance/Customer Service* or *Project System,* as well as the service entry sheet .

The confirmations do not contain any data on actual times because this has already been posted to *Controlling (CO)* via *Materials Management (MM-SRV)*.

For more information, see:

Service Entry with Reference to an Operation [Seite 133]

3. You transfer data with the above account assignment to *Materials Management (MM-SRV)* using the *Transfer -> External Services* transaction (CATM).
4. The system displays a log. You can use the log to determine whether all data records were posted.
5. If there are records with errors, an error pool is generated, which also details the causes of the errors. Depending on the cause of the error, you can either make the necessary corrections in the service entry sheet or in the time sheet, and then repeat the data transfer.
6. Time sheet data that has been posted must also be approved in service entry.

If you cancel a time sheet record, you must make sure that the sum of the service entry values you transfer is positive for each account assignment.

The following entries would result in an error:

PERS. NO.	PO NO.	PO ITEM	Service	Cost center	Hours	Cancellation
3	451	1	XX	45	2	
3	451	1	XX	45	3	X

When making your settings in Customizing, you should ensure that account assignment category X (all auxiliary account assignments) is set as an optional entry field on the purchasing document screen. The G/L account is an exception.

Result

You have transferred data from the time sheet to *Materials Management (MM-SRV)* for service entry.

Master Data Maintenance for External Employees

Use

You can also enter the working times of external employees in the time sheet but only if you create master data for them.

You should note the following when maintaining master data for external employees:

1. You do not need to assign a personnel number to each employee

One activity is often performed by several different persons at different times. Creating a separate HR mini-master record for each of a vendor's employees would therefore generate a vast amount of work.

Instead, you can assign several employees, or several groups of employees, the same personnel number.

If you assign several external employees one personnel number, and these employees work at the same time, you should set the *More than 24 hours* field in the data entry profile to **N**. The system does not then check whether you have entered more than 24 hours for one day.

We still recommends that you assign external employees their own user ID in the SAP System, however. This means that, although the personnel number is the same, you can still use the *Created by* and *Changed by* fields in reporting to check who processed a record, and perform evaluations accordingly.

2. You must maintain the *Time Sheet Defaults* infotype (0315)

You can specify default values for each employee in the *Time Sheet Defaults* infotype (0315). When working times are entered, the default values are copied automatically to the time sheet and can be overwritten if necessary. You can also use this function for internal employees but it is not obligatory.

You must maintain the *Vendor* field in infotype 0315 for external employees, otherwise they cannot enter time sheet data. This field allows you to assign an external employee to a specific vendor, and provides another means of checking data entered in the time sheet.

If a purchase order is entered in the time sheet, the system automatically checks whether the order corresponds to the supplier specified in the *Time Sheet Defaults* infotype (0315). If the two do not correspond, the system issues an error message.

Note that the *Time Sheet Defaults* infotype (0315) is time-dependent. You can set the validity period as another means of controlling data entry.

Service Entry with Reference to an Operation

Purpose

You can use the time sheet to enter services, which are posted to the *Purchasing* component of *Materials Management* (MM-SRV), or to the *Plant Maintenance/Customer Service* (PM/CS) or *Project System* (PS) components in *Logistics*.

This means that you can post services entered in MM-SRV with reference to an order operation or network operation.

You can enter services performed by both internal and external employees in the time sheet and therefore detail order or network confirmations.

Prerequisites

You must maintain the *Time Sheet Defaults* infotype (0315) for external employees.

For more information, see:

Master Data Maintenance for External Employees [Seite 132]

You can create different data entry profiles for internal and external employees. Only external employees should be able to enter data in the fields for entering a purchase order.

Process flow

1. External employees enter their working times, specifying purchase order details and for a particular order or network.
2. If there are entries in the *Sending purchase order* and *Operation* fields, the system recognizes that a service has been entered with reference to an operation.
3. You transfer the data to the target components MM-SRV and PM/CS or MM-SRV and PS.
4. The costs are updated to the order or network based on the service entry. To prevent the activities from being allocated twice, the system transfers the data to PM/CS or PS with the number of hours set to 00.00.
5. The system updates the status of the operation automatically (partial confirmation, final confirmation) when the confirmation is posted.
6. If a service in MM-SRV is not approved, this has no effect on the confirmation in PM/CS and PS. In this case, the data record should be changed or deleted using the time sheet.

   The advantage of this procedure is that cancelation records are transferred automatically to PM/CS or PS. You should consider the effects this could have on other target components however.

   As an alternative, you can change or cancel the confirmation in PM/CS or PS.

Data Transfer to Human Resources (HR)

Purpose

Time sheet data can be transferred to HR as attendances, absences, or wage types. The data is transferred using a data transfer report [Seite 137].

Once data records due for transfer to HR have been approved, they can be transferred automatically without you having to start the transfer report manually. In this way, there is as little time as possible between entering and validating time sheet data and transferring it to HR. This is particularly important for attendance and absence records, to ensure HR always has the latest time data.

If you use the time sheet to enter only HR data, we recommend you run the report every night. If there are several application servers available for HR, you should schedule the report for different ranges of personnel numbers for each application server. This optimizes system performance.

If you transfer the data to several target components, it is better to distribute the data, by using a different server for each target component for example.

For more information, see:

Immediate Transfer to HR [Seite 140]

Prerequisites

You do not have to make any special Customizing settings in HR to transfer data. We recommend, however, that you check the settings for the attendance and absence types you use, to ensure they can meet the new demands placed on time recording.

Process flow

1. You must release or, if you integrate the approval procedure, approve the data.
2. The system writes the data to the interface tables PTEX2000 (infotypes 2001 and 2002) and PTEX2010 (infotype 2010). You must have entered the attendance or absence type, or wage type:

Field Name	Data Element	Short Description	Required Components
AWART	AWART	Attendance or absence type *Attendances* (2002) and *Absences* (2001) infotypes	*Time Management* **and** *Personnel Management (HR Master Data)*
LGART	LGART	Wage type *EE Remuneration Info* (2010) infotype	*Payroll* **and** *Personnel Management (HR Master Data)*

For more information, see:

Attendances/Absences [Extern] and Employee Remuneration Information [Extern]

3. You can transfer the data from the interface table to HR using the data transfer report **RPTEXTPT** *(Transfer External -> Human Resources*).
4. The report generates infotype records for the *Attendances* (2002), *Absences* (2001), or *EE Remuneration Info* (2010) infotypes from the data.
5. If errors occur during transfer, the report generates an error pool *Background* mode.
6. You process the records containing errors in the *Time Sheet* and restart the report.

If you choose *Repeat transfer* in the *Fore* or *Error* mode, you can correct the data in HR. Note that this means the data entered in the time sheet no longer corresponds to the data in *Human Resources*.

If the data has been transferred to other target components, it may be better to correct the data in the *Time Sheet*, depending on which data you want to correct.

For more information, see the documentation for this report.

Result

You have transferred time sheet data to HR.

Transfer to Human Resources

Use

When you transfer records from the *Time Sheet* or an external time recording system to *Human Resources,* you are supplying this component with attendance and absence data, and data on employee remuneration and substitutions. The transferred data is then available for transfer to *Payroll* for further processing. You transfer the data using report RPTEXTPT (*Transfer External Data* → *Human Resources*).

Report RPTEXTPT transfers data from the interface tables PTEX2000, PTEX2010, PTEX2003GEN, and PTEX2003SPEC to the corresponding infotypes *Attendances/Absences* (2002/2001), *EE Remuneration Info* (2010), and *Substitutions* (2003) in *Human Resources*.

You **cannot** use the Time Sheet to supply the *Substitutions* infotype (2003).

To ensure that *Human Resources* is always provided with the most up-to-date time data, you should schedule the report to run daily.

To call the report, choose *Time sheet* → *Transfer* → *Human resources*.

Prerequisites

Data from the *Time Sheet* is ready for transfer to *Human Resources* when it is assigned the processing status [Seite 184] 30 (*Approved*).

Integration

If you enter data using an external application, insert BAPIs ensure that the data is converted as required. These insert BAPIs belong to the business objects PTManagerExtAttAbs, PTMgrExtRemunSpec, or PTMgrExtWoSched. The BAPIs take data with a predefined external format and convert the fields into the SAP internal formats of structures PTEX2000, PTEX2010, or PTEX2003GEN/PTEX2003SPEC. In addition, the PTEX20xx-UNAME1, DATUM1, UZEIT1, PGMID1 fields are filled with the user name, date, time, and program, ensuring that the process is documented, and the PTEX20xx-STATU2 and PTEX20xx-STATU3 status fields are reset. These status fields are used to transfer the record to the infotype.

If you use the upload report RPTEX2010, you should coordinate this with the data transfer report. The same applies if you use BAPIs for the upload.

Features

You can run the report in three different modes. The mode determines the how the data is transferred:

- *Background*

  This is the standard mode if you schedule the report as a background job. The report runs immediately; the posting is performed via transaction PA61.

- *Foreground*

The report runs immediately, displaying all the screens active for the transfer. You would want to select this mode in combination with the *Repeat transfer* option if errors occurred during the first transfer, for example.

- *Error*

  If some records could not be transferred, you should select this mode and the *Repeat transfer* option. The report runs immediately and displays any records that could not be transferred.

- *Direct*

  If you choose this mode, the system writes the data records that are to be posted directly to the corresponding infotypes. Unlike the other modes, the posting is not performed via transaction PA61, but instead using a function module. Posting is significantly quicker when you use this mode.

  You cannot use this mode in combination with the *Repeat transfer* option.

Selection

The following selection options are available for selecting data for transfer:

Option	Meaning
Initial transfer	You select according to personnel number and date. The report transfers data that has not previously been transferred.
Repeat transfer	You want to transfer records that could not be successfully transferred during the initial transfer again. Incorrectly transferred records are records which could not be posted to *Human Resources*. Select this option in combination with either the *Error* or *Foreground* mode. If you correct errors from the report itself, the data in the time recording system is no longer consistent with the changed data that is transferred to *Human Resources*.
Transfer/ delete	You want to transfer records and delete them from the relevant interface tables as soon as they have been transferred. The system only deletes records that are flagged as transferred. If you also want to delete locked data, select the relevant option.
Only delete	You only want to delete the data from the interface tables that has already been transferred. The system only deletes records that are flagged as transferred. If you also want to delete locked data, select the relevant option.

Lock/unlock	You want to exclude some data from the transfer run. This is the case, for example, if you do not want to correct the records containing errors in the source system but would rather enter them manually in the SAP System. You can lock the records containing errors in the interface tables. Select the records you want to lock and choose the locked padlock icon. To unlock the locked records, select them and choose the unlocked padlock icon. The records are then once again ready for transfer. In addition to selecting by personnel number and date, you can select according to the data containing errors, new data, and locked data. You cannot use this option for posting substitutions.

In addition, you must specify which infotypes you want your records to supply: *Attendances/Absences* (2002/2001), *Substitutions* (2003), *EE Remuneration Info* (2010). Select the options you require.

You **cannot** use the Time Sheet to supply the *Substitutions* infotype (2003).

Additional options are:

- *Output log*
- *Send mail*
- *Test run*

Output

Once the transfer is complete, the report generates the standard log. You can use the log to see which data was transferred and how many records generated errors during transfer. If you have also selected the *Log* option, the log contains additional detailed information.

If a record collides with a record in *Human Resources,* you must verify which record is the correct one. Correct or delete the incorrect record accordingly. This situation may arise if the *Human Resources* record was created after the record in the source system.

If a record in the source system collides with an *HR* record and the *HR* record was created first, proceed as follows:

- If you implement the *Time Sheet,* check your Customizing settings for collision checks. For more information, see the Implementation Guide (IMG) for *Personnel Time Management. Choose Time Data Recording and Administration → Specify System Reaction to Overlapping Time Infotypes*.
- If you use insert BAPIs, check the settings for the CheckCollision method of the business object PTManagerExtAttAbs.

Immediate Transfer to HR

Use

We recommend you transfer data to HR immediately after entering it in the time sheet, to ensure HR always has the most up-to-date time data. You therefore have the option of transferring time sheet data to HR automatically after the data has been released or approved.

If you transfer data immediately to HR, all records due for transfer for one personnel number are transferred. This is particularly important for attendance and absence records, to ensure HR always has the latest time data.

Features

You can set up the immediate transfer of data to HR depending on if, when, and how you approve working times:

- Immediate transfer on release of records

  If you do not use the integrated approval procedure, the data records are transferred to HR immediately after being released.

  Select the *Immediate transfer to HR* field when you maintain your profile.

- Immediate transfer after approval process without workflow

  If you trigger the approval [Seite 67] procedure from the time sheet menu, you use one of the following reports to approve the data: **RCATSA01**, **RCATSC01** or **CATSSHOW**. Select the *Immediate transfer to HR* option on the report selection screen for all the report variants you require.

- Immediate transfer after approval process with *SAP Business Workflow*

  If you use the SAP predefined workflow [Seite 69], the approval report **RCATSB01** *Time Sheet: Approve Times* is started automatically. To transfer the data immediately to HR, you must create a report variant and select the *Immediate transfer to HR* option.

  For more information, see the Implementation Guide (IMG) for the *Time Sheet*. Choose *Cross-Application Components -> Time Sheet -> Time Recording -> Determine Variant of Approval Report for Workflow*

Entry of Attendances and Absences for HR Time Management

Use

If you enter time data in the time sheet together with an attendance or absence type, you can transfer it to *HR Time Management*.

The system writes the time data entered to the HR interface table PTEX2010, from which it is transferred to *Time Management*. In *Time Management*, the system creates records in the *Attendances* (2002) and *Absences* (2001) infotypes for this time data.

When recording working times, you cannot enter data that encompasses several days.

If the absence duration forms the basis for further calculations in payroll, you should enter the absence in HR using the *Absences* infotype (2001). This includes continued pay in cases of illness, for example.

Prerequisites

The following are prerequisites for entering attendances and absences using the time sheet, and transferring the data to *Time Management*:

- There must be a valid *Planned Working Time* record (infotype 0007) for the employee
- If you record time data in hours, and not in clock times, you must set the feature HRSIF to the value 1 in the Customizing for *Time Management*. This prevents the system generating clock times automatically after the data is transferred to the *Attendances* (2002) and *Absences* (2001) infotypes, which can lead to data collisions.

  Note that changing the feature HRSIF affects time evaluation with clock times and the processing of time data in payroll. If you process time data with clock times, we recommend that you also enter times in the time sheet with clock times.

  However, if you wish to continue recording time data in hours and evaluating it with clock times, the standard schema TM04 (Time evaluation) contains solutions for generating the necessary clock times in *Time Evaluation*. When you customize the standard schema, you should note in particular the effect this may have on processing breaks. In *Payroll,* you can use the standard schema TC04 to process time data that has been entered without clock times.

  For more information on the feature HRSIF, see the Implementation Guide (IMG) for *Time Management. C*hoose *Time Data Recording and Administration -> Permit Att./Absences to be Recorded Without Clock Times*.

- You must set up the relevant authorizations for all employees who are to enter data for *Time Management*. In the authorizations, you can specify for which subtypes of the *Attendances* (2002) and *Absences* (2001) infotypes the user is allowed to enter data.

  For more information, see:

  Assignment of Authorizations for the Time Sheet [Seite 168]

Extended Functions for Users of HR Time Management

Use

If you implement *HR Time Management,* you can use the time sheet as follows:

- To supplement the options provided by the *Maintain time data* menu in *Time Management*. You then have the advantage of a higher degree of integration between *Time Management* and other SAP applications.
- To allow employees to enter their own working times in the system and reduce the workload in the central data entry office

The integration of target hours and extended data entry checks allows even inexperienced system users to enter their working times efficiently and in a way that caters to the requirements of *Time Management*.

Extended Checks for Users of HR Time Management

Use

If you implement *HR Time Management*, there are extended checks available when you enter time sheet data. They allow you to validate the data entered against target hours and attendance/absence quotas, and to check for collisions with existing *SAP Human Resources* data.

Features

Validating the Data Against Target Hours

The target hours can be taken from the specifications in the employee's personal work schedule or from the results of time evaluation (time type 0050 - productive hours, for example).

When you maintain your profiles, you can define upper and lower tolerances. The system then checks that the attendance times entered observe these tolerances.

When you set up a profile, note that the system cannot take account of attendance quotas (for overtime, for example) when checking that tolerances have been observed. It cannot be guaranteed that the correct amount of time would be deducted from the quotas.

The system checks the tolerances for all released data in the current data entry period whenever you perform an action [Seite 50] that merits a check.

When you save or check the data, the system additionally validates all data within the data entry period.

- You set the data entry period in the *Upper limit relative* and *Lower limit relative* fields when you maintain your profile.
- In addition, the check [Seite 52] function checks all data assigned the processing status *In process.*

To simplify data entry, the system only checks for a deficit in target hours when you save or check data, and only up to the current system date. It always checks that the target hours have not been exceeded, however.

Validating Data Against Quotas

If an attendance or absence type is deducted from a quota, the system can check whether sufficient quota is available as soon as data is entered in the time sheet. The system takes account of the quotas for the *Attendance Quotas* (2007), *Absence Quotas* (2006), and *Leave Entitlement* (0005) infotypes.

All data within the data entry period is checked, since a new or changed entry can affect quota deduction for existing records.

The system only carries out these comprehensive checks when you:

- *Save* records that are assigned the status *Released*

- *Check* all records (regardless of their status)

Checking for Collisions with Attendances and Absences in HR

The system only checks for collisions between new or changed time sheet records and existing HR data records, and only for the current data entry period .

Released records are always checked whenever you perform an action meriting a system check. When you check data, data assigned the status *In process* is also checked.

Using Information from HR Time Management

Use

There are certain *Time Sheet* functions that you can only use if your enterprise implements the *SAP HR Time Management* component. If your enterprise does, the system has access to information on your working times, or the working times you enter for persons assigned to you.

You can use the following information from *HR Time Management*:

- Planned working time from the personal work schedule [Extern]
- The day's attendance hours (if your enterprise implements Time Evaluation [Extern])

This information is available in the *Time Sheet* as target hours.

If you integrate target hours, you can implement extended data entry checks. They enables you to monitor the working times entered by less experienced users and ensure that the data recorded meets the requirements of *Time Management*.

Features

Referencing and validating target hours

The planned specifications from an employee's personal work schedule or results from time evaluation, such as relevant attendance hours (time type 0050 - productive hours, for example) can be displayed as target hours in the data entry section. You can reference the target hours when validating time sheet data. Users can show or hide the target hours as required when entering time sheet data.

The Documenting Remaining Hours [Seite 150] function allows you to copy the difference between the target hours and the hours that have already been entered to a row in the data entry section.

You can also reference the target hours to check that users satisfy their minimum daily working hours, and do not work more than the specified target hours. For more information, see Extended Checks for Users of HR Time Management [Seite 144].

You can activate the integration and validation of target hours when you maintain your profiles. In addition, you can specify whether attendances and absences that have already been entered in HR should be taken into account when the target hours are determined.

Calculating working hours automatically

If users enter time data using clock times, the number of hours worked is calculated automatically in the time sheet. If you implement *Time Management*, the system also takes into account specifications in the work break schedule and automatically deducts the unpaid break duration.

Entering absences

When you enter an absence record, the system does not allow the day's target hours to be exceeded. If more absence hours are recorded than allowed according to the target hours, the system overwrites the recorded absence hours with the target hours.

If you record working times using clock times, any absence times must lie within the planned working time interval (normal working time). The system reads the planned working time interval from the employee's work schedule. If the absence does not fall within the defined interval, the

system overwrites the start and end of work time to comply with the planned or normal working time interval.

Validating data against quotas

The times entered in the time sheet can be validated against quotas from the *Attendance Quotas* (2007) and *Absence Quotas* (2006) infotypes.

Showing or Hiding Target Hours

Use

The target hours show how many hours must be worked in a day. You can display them in the data entry section, in the row marked with a small clock icon.

Depending on your system settings, the target hours may already be displayed when you call the time sheet.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Choose *Target hours on/off*.

Result

The target hours are now displayed or hidden, depending on whether they were initially switched on or off.

Copying Target Hours

Use

The target hours show how many hours must be worked in a day. You can display [Seite 148] them in the data entry section, in the row marked .

In order to simplify data entry, you can copy the target hours to a row in the data entry section. You may want to do this if you (or the employee whose data you are processing) have worked on an order over a relatively long period of time.

The following procedure explains how to copy the target hours to a row. You can also determine the difference between the entered hours and the target hours, and copy the value to the data entry part. For more information, see Documenting Remaining Hours [Seite 150].

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Select the cells to which you want to copy the target hours.
3. Choose *Target hours.*

Result

The system copies the target hours to the cell(s) selected. You can overwrite the copied hours and enter additional working time attributes if required.

Documenting Remaining Hours

Use

If you have already entered times for a particular day or period, you can use the *Target hours* function to settle automatically the difference between the entered times and the target hours.

The target hours determine how many hours you can and must enter for one day. You can display [Seite 148] the target hours in the data entry section, in the row marked with .

You may want to use this function if you (or the employee whose data you are entering data) work on a different cost center for a certain period of time, and want to post the remaining hours to the master cost center.

Procedure

1. Call the data entry view [Seite 23] for the time sheet.
2. Enter the working times that you do not want the system to enter based on the target hours.
3. Select the cells in a row that you want to settle using remaining hours.

The target hours are copied to the selected cells for which you have not yet entered times.

4. Choose *Target hours.* You can also choose *Edit* → *Propose times* → *Target hours.*

Result

The system enters the difference between the entered times and the target hours in the selected cells. You can overwrite the copied hours and enter additional working time attributes if required.

Determining a Different Payment

Use

If you implement SAP *Human Resources*, you can enter a different payment in the *Time Sheet* for certain activities that an employee performs. This option is available if you are entering data on an attendance or remuneration information. This enables you to determine that certain attendance types or wage types are not valuated using their regular value in *Payroll* but, instead, according to the different value you have defined.

Note for US customers:

If necessary, you can enter a different tax area for an employee, which overrides the tax area entered for the employee in the *Work Tax Area* infotype (0208). For more information, see: Work Tax Area Overrides [Extern].

Prerequisites

You must show the relevant fields in the field selection [Extern] of each data entry profile that is to be used to enter data on a different payment.

Features

Assigning a premium

You can assign an employee a premium for particular work activities or working conditions. You select the premium according to a *premium number* and a *premium indicator*.

You can also assign a premium in addition to the following options:

Payment according to a different pay scale

You can use the *Pay scale group* and *Pay scale level* options to redefine the payment for a particular work activity. In *Payroll,* the prices defined in the *Basic Pay* infotype (0008) are not selected. Instead, the payment for the period of the different payment is based on the prices you specify here.

Payment according to the specifications for a different position

You can use the *Object type* and *Position* options to assign the payment for the work activity according to the specifications for a different position.

Correcting payroll results

You can use the *Extra pay* and *Valuation* options to correct the *Payroll* results.

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 using the *Valuation* and *Extra pay* options.

Enter an amount in the *Valuation* field. The *extra pay indicator* determines how the new valuation basis is formed:

- If you enter a "+" in the *Extra pay* field, the amount in the *Valuation* field is added to the valuation basis calculated in payroll.

Determining a Different Payment

- If you enter a "-" (*minus*) in the *Extra pay* field, the amount in the *Valuation* field is deducted from the valuation basis calculated in payroll.
- If you do not make an entry under *Extra pay*, the valuation basis calculated for the wage type in payroll is replaced by the specified amount.

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.

Entry of Employee Remuneration Information

Use

In addition to just recording attendances and absences, you can also use the *Time Sheet* to enter data for the *EE Remuneration Info* infotype (2010) in *Human Resources*. To do this, you must enter the data together with a wage type. You can code wage types individually according to your business requirements.

For example, you can create a wage type which your employees use to enter the number of kilometers they have traveled. Also, you can create wage types which your employees can use to enter monetary amounts, for example an "expenses" wage type. Employees could use this wage type to enter amounts they unexpectedly had to spend on purchasing materials (cable, screws, and so on). Your employees' expenses can then be reimbursed in *Payroll*. Of course, you can also create regular hour and overtime wage types.

The data is available for *Payroll* after it has been transferred to *Human Resources*.

If you allow your employees to enter their own times in the time sheet, you should use an approval procedure [Seite 65] to check their entries before they are transferred to *Human Resources*.

Prerequisites

You should include the following fields in the field selection [Extern] for each data entry profile that is used to enter employee remuneration information.

- *Wage type*
- *Currency*
- *Internal unit of measure*

You have to set up the appropriate authorizations for all employees who enter wage types. In the authorizations, you determine which wage types the user is allowed to enter.

Maintain the assignment of internal SAP units to HR units in the Implementation Guide (IMG) for Personnel Management. Choose *Personnel administration* → *Basic settings* → *Create units of time/measurement.*

You must code your wage types when you make your settings in Customizing.

Features

The system writes data entered with wage types to the HR interface table PTEX2010, from which it is transferred to *Human Resources*. After successfully transferring the time sheet records, the system generates records for the EE Remuneration Info [Extern] infotype (2010). These are processed in *Payroll*.

The following wage types are available for the *Time Sheet*: Hour wage types, overtime wage types, and bonus wage types.

Entry of Employee Remuneration Information

The totals column in the time sheet adds up the hour wage types and overtime wage types. The bonus wage types are excluded from the total because they only represent additional information on the time worked, and not the time itself.

If you change the employee remuneration information after it has been transferred to HR, the reference to the corresponding record in the time sheet is lost. You are no longer able to display a follow-on document [Seite 89] for this record.

If you want to record a different payment, see: Determining a Different Payment [Seite 151].

Constraints

You cannot use the Time Sheet to supply the *Work center* field in the *EE Remuneration Info* infotype (2010).

For Users of HR: Data Entry Scenarios for Cost Accounting

Use

In standard processing, the employee's master cost center is debited with the personnel costs that *Payroll* has calculated for the employee.

In this scenario, two important aspects of cost accounting cannot be taken into account:

1. The receiver of a service cannot be debited with the personnel costs determined in *Payroll*.
2. If an activity allocation for cost accounting or a confirmation for Logistics is entered in the time sheet, one of the following applies:

- A sender cost center is specified or proposed
- For confirmations, the sender cost center from the operation of the planned work center is proposed.

  In this scenario, the sender cost center may be different from the employee's master cost center specified in the *Organizational Assignment* (0001) or *Cost Distribution* (0027) infotypes. This causes an imbalance in cost accounting, since the costs cannot be allocated between the master and sender cost centers and receiver object of an activity.

You can therefore use three additional scenarios to control your cost accounting, in addition to standard processing.

The scenarios are run according to which data entry profile an employee used to enter his or her working times. Each record is assigned to the scenario specified in the data entry profile. A data record can only be changed at a later time using a data entry profile that specifies the assigned scenario. The only exceptions are records in which only one attendance or absence or wage type is entered.

Prerequisites

This function is only relevant if you implement *SAP Payroll*, which determines the actual personnel costs and transfers them to *Controlling*.

The field selection for the data entry profiles must correspond to the relevant scenarios to prevent employees making incorrect entries.

Features

You can use the following data entry scenarios for cost accounting:

- Standard processing: Cost assignment to the employee's master cost center

  See also: Assignment of Personnel Costs to the Master Cost Center [Seite 157]

- Cost assignment to the receiver object

  See also: Assignment of Personnel Costs to the Receiver Object [Seite 159]

- Cost assignment to the sender cost center, activity allocation between the sender cost center and the receiver object

For Users of HR: Data Entry Scenarios for Cost Accounting

See also: Assignment of Personnel Costs to the Sender [Seite 161]

- Cost assignment to the master cost center, activity allocation between the receiver object and the sender cost center, and between the sender and master cost center

  See also: Activity Allocation Between the Master and Sender Cost Center [Seite 163]

Activities

For each data entry profile, specify the scenario you want to use for cost accounting.

For more information, see the Implementation Guide (IMG) for the *Time Sheet*. Choose:

- *Time Sheet* → *Time Recording* → *Set Up Data Entry Profiles*.
- *Time Sheet* → *Time Recording* → *Choose Fields*.

Assignment of Personnel Costs to the Master Cost Center

Purpose

This data entry scenario for cost accounting assumes that employees always work for their master cost center and that the receiver of an activity is not debited with the personnel costs. This is the standard scenario if you do **not** implement *SAP Payroll* (PY).

If you do use *SAP Payroll*, you should not use this scenario in the following cases:

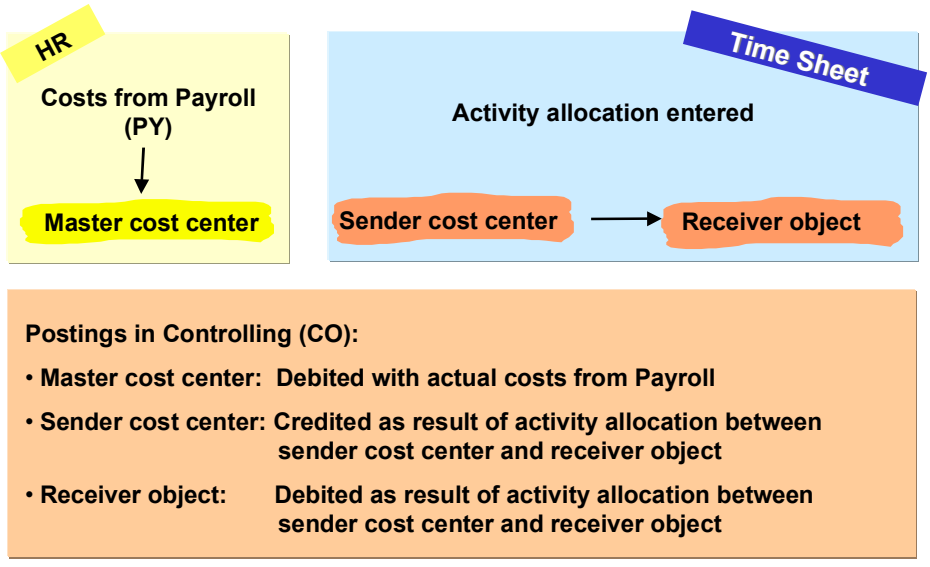
- You want to debit the receiver object of an activity with the personnel costs
- You want to perform activity allocation
- The sender cost center is not the employee's master cost center

This would cause an imbalance in cost accounting, since the sender cost center would be credited with the entered hours and the master cost center debited with the personnel costs.

Prerequisites

Employees who enter their working times using a data entry profile specifying their cost center must always work for the same master cost center(s), as specified in the *Organizational Assignment* (0001) or *Cost Distribution* (0027) infotypes.

Process flow



1. You enter an activity allocation or confirmation in the time sheet.

Assignment of Personnel Costs to the Master Cost Center

2. In *Controlling,* the activity allocation credits the sender cost center and debits the receiver cost center.
3. If an attendance, absence or wage type is entered at the same time, the system writes the working time information to the *Attendances* (2002), *Absences* (2001), or *EE Remuneration Info* infotype (2010) in HR.
4. The *Payroll* component determines the personnel costs for the times.
5. In *Controlling,* the employee's master cost center is debited according to what was specified in the *Organizational Assignment* (0001) or *Cost Distribution* (0027) infotypes.

Assignment of Personnel Costs to the Receiver Object

Purpose

In this data entry scenario, you assign the personnel costs for the working times entered in the time sheet to the receiver object of an activity.

The personnel costs are determined in *Payroll.* If you enter a confirmation using this scenario, the system does not determine the costs for the activities in *Logistics*. The receiver object is only debited with the personnel costs.

Use this scenario if you:

- Want to debit the receiver object with the personnel costs
- Do not perform activity allocation

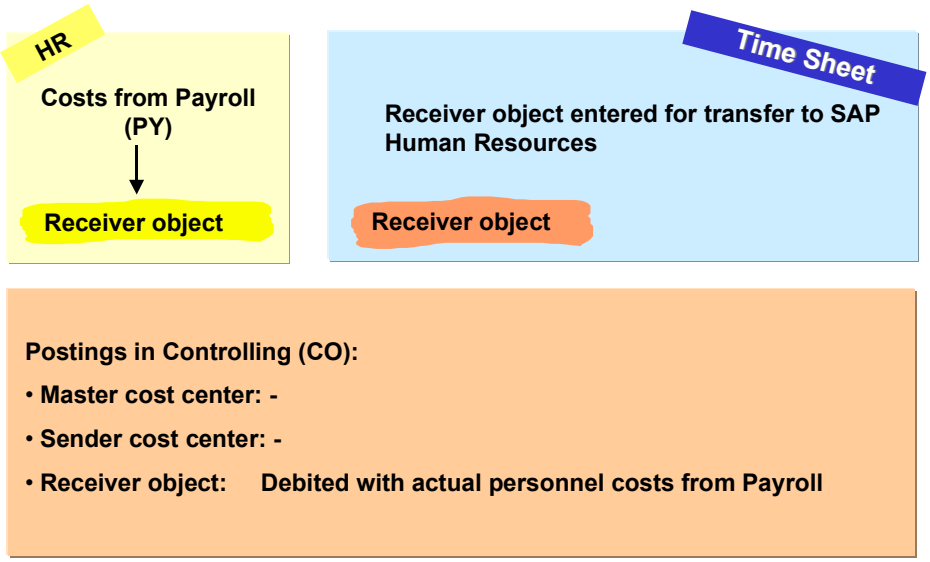
This scenario is equivalent to entering cost assignment specifications in *Human Resources* when processing an attendance or absence, or employee remuneration information.

Prerequisites

- Data must be recorded for one of the following receiver account assignment objects:
  - *Cost center*
  - *Work breakdown schedule (WBS) element*
  - *Order*
  - *Sales order*
  - *Network number*
  - *Cost object*
  - *Business process*
- Primary cost assignment to the receiver object must be permitted.
- You must enter an attendance/absence type, or a wage type.
- Activity allocation is not permitted, that is, you must not enter a sender cost center and activity type.

Assignment of Personnel Costs to the Receiver Object

Process flow



1. You enter the receiver object of an activity, and an attendance/absence type or wage type in the time sheet.
2. In *Human Resources,* the system writes the information on the receiver object and on working time to the *Attendances* (2002) or *Absences* (2001), or *EE Remuneration Info* (2010) infotypes.
3. The *Payroll* component determines the personnel costs for the times.
4. In *Controlling*, the receiver object is debited with the personnel costs.

Assignment of Personnel Costs to the Sender

Purpose

In this data entry scenario, you assign the personnel costs determined in *Payroll (PY)* for the working times entered in the time sheet to the sender cost center of the activity. In addition, the system allocates activities.

This scenario is equivalent to entering activity allocation specifications in *Human Resources* when processing an attendance, absence, or wage type.

In *Human Resources*, you also have the option of assigning an account to the activity type. In *Controlling (CO)*, you can link the cost assignment and the activity allocation.

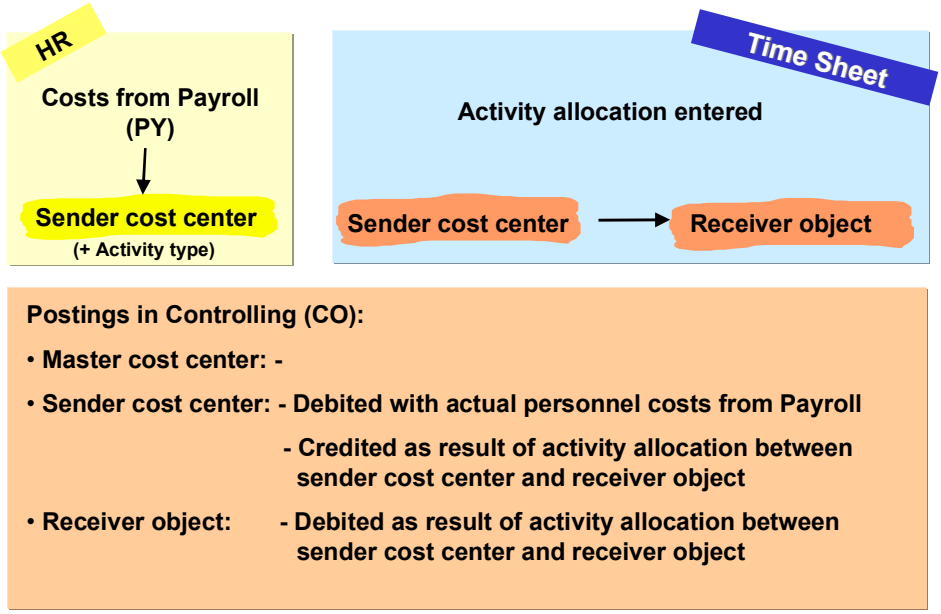
See also: Actual Postings to Activity Type [Extern].

Prerequisites

- Entering data in the time sheet triggers activity allocation, that is, one of the following target components is supplied with information on the sender cost center and activity type:
  - *Controlling* (CO)
  - *Project System* (PS)
  - *Plant Maintenance* (PM)
  - *Customer Service* (CS)
- A primary costs posting to the sender cost center (and activity type) must be permitted.
- You must enter an attendance or absence type, or a wage type.

Assignment of Personnel Costs to the Sender

Process flow



1. In the time sheet, you enter an activity allocation or a confirmation and an attendance/absence type, or wage type.
2. In *SAP Human Resources,* the system writes activity allocation and working time information to the *Attendances* (2002), *Absences* (2001), or *EE Remuneration Info* (2010) infotypes.
3. The *Payroll* component determines the personnel costs for the times.
4. In *Controlling*, the sender cost center is debited with the personnel costs. The activity is allocated between the sender cost center and the receiver object; the sender cost center is credited and the receiver object is debited in the process.

Activity Allocation Between Master and Sender Cost Center

Purpose

This data entry scenario is used to allocate the activities between the sender cost center and the receiver object. The personnel costs determined by *Payroll* are assigned to the employee's master cost center. If the sender cost center is not the employee's master cost center, an additional activity allocation is generated between the employee's master and sender cost center.

In *Human Resources*, you also have the option of assigning an account to the activity type. This means you have the option in *Controlling* of linking the cost assignment and activity allocation.

See also: Actual Postings to Activity Type [Extern].

Entering data in the time sheet triggers an activity allocation, that is, one of the following target components is supplied with information on the sender cost center (or work center) and activity type:

- *Controlling* (CO)
- *Project System* (PS)
- *Plant Maintenance* (PM)
- *Customer Service* (CS)

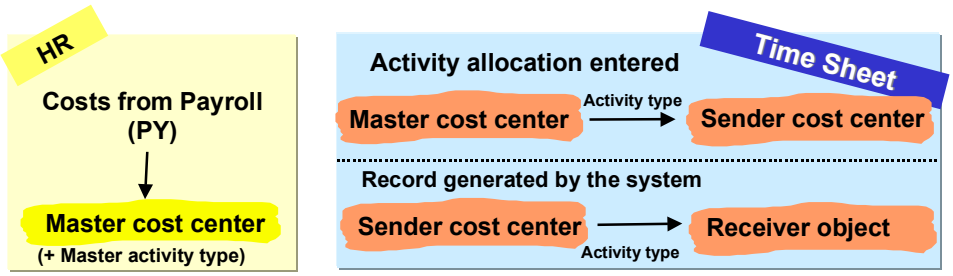
You can set a default activity type to be used for the activity allocation in the *Time Sheet Defaults* infotype (0315).

Prerequisites

- You must define the employee's master activity type in the *Time Sheet Defaults* infotype (0315). The master activity type contains the average rate that is used to calculate the employee's activity. The system enters the master activity type in the background as a default. You cannot maintain it in the time sheet. The master activity type must be scheduled for the master cost center.
- If you want to use the *Account assignment to activity type* option, you must enter an attendance or absence type, or a wage type.

Activity Allocation Between Master and Sender Cost Center

Process flow



Postings in Controlling (CO):

- **Master cost center:** - Debited with actual personnel costs from Payroll
  - Credited as result of activity allocation generated between sender cost center and master cost center
- **Sender cost center:** - Debited as result of activity allocation generated between sender cost center and master cost center
  - Credited as result of activity allocation entered between sender cost center and receiver object
- **Receiver object:** - Debited as result of activity allocation entered between sender cost center and receiver object

Scenario without account assignment to activity type

1. You enter an activity allocation or confirmation in the time sheet.
2. In *Controlling,* the activity allocation credits the sender cost center and debits the receiver cost center. The employee's master cost center is debited with the personnel costs.

   If the sender cost center is not the master cost center, the system generates a second activity allocation in the background. The activity is then allocated in *Controlling* using the rate specified in the master activity type. The master cost center is credited and the sender cost center is debited.

Scenario with account assignment to activity type

1. You enter an activity allocation or confirmation and an attendance/absence type or wage type in the time sheet.
2. When data is transferred to *Human Resources,* the working time information, together with the master cost center/activity type or master cost center/master activity type, is written to the *Attendances* (2002), *Absences* (2001), or *EE Remuneration Info* (2010) infotype.
   a. If the sender cost center is the employee's master cost center, the activity type is transferred to *Human Resources*.
   b. If the sender cost center is not the employee's master cost center, the system generates a second activity allocation record in the background, which is used to transfer the master activity type *Human Resources*.
3. The *Payroll* component determines the personnel costs for the working times.

4. In *Controlling*, the master cost center/activity type or the master cost center/master activity type is debited with the personnel costs.
5. The activity is allocated between the sender cost center and the receiver cost center using the rate specified in the activity type. The sender cost center is credited, and the receiver object debited.

   If the sender cost center is not the master cost center and a second activity allocation was generated, the activity is allocated between the master and the sender cost center using the rate specified in the master activity type. The master cost center is credited and the sender cost center is debited.

Reorganization of Interface Tables

Use

Reorganizing interface tables improves the performance of data transfer reports. We therefore recommend that you periodically schedule report RCATSRIF (*Reorganize Time Sheet Interface Tables*) as a background job.

Integration

If you only want to reorganize the *Human Resources* (HR) interface tables, you can do so directly from the HR data transfer report RPTEXTPT (*External Transfer* → *Human Resources*). The *Transfer/delete* and *Only delete* options are available for this report.

Features

Report RCATSRIF (*Reorganize Time Sheet Interface Tables*) deletes time sheet data that has already been transferred to the target components from the interface tables.

You can use report RCATSRIF to reorganize the following *Time Sheet* interface tables:

- CATSCO (*Controlling*)
- PTEX2000 (*Human Resources*, infotypes 2001 and 2002)
- PTEX2010 (*Human Resources*, infotype 2010)
- CATSMM (*Materials Management*)
- CATSPM (*Plant Maintenance/Customer Service*)
- CATSPS (*Project System*)

You can reorganize several interface tables in one step by selecting all the interface tables you want to reorganize on the selection screen.

Reorganizing Interface Tables

Procedure

1. Call report RCATSRIF (*Reorganizing Time Sheet Interface Tables*) by choosing *Time sheet* → *Tools* → *Reorganize interface tables*.
2. If you want to delete records from the relevant interface tables for certain personnel numbers only, enter them in the *Personnel number* field.
3. Specify the period for the reorganization.
4. Select the interface tables you want to reorganize. You can select more than one interface table.
5. If you want the system to display a *Log* once the reorganization is complete, select the relevant option.

   To prevent errors occurring during reorganization, perform a *test run* first.
6. Choose *Execute*.

Result

The system deletes records that have already been transferred to the target components from the relevant interface tables.

Assignment of Authorizations for the Time Sheet

Use

Many employees, who perform a variety of different tasks, work with the *Time Sheet*. You can ensure the protection of personal data by using the authorization concept for the *Time Sheet*.

Features

Roles

Authorizations for the *Time Sheet* are assigned using roles. In a role, you can determine

- Which data entry profiles the user is permitted to use to enter data
- Whether the user is permitted to approve data and start evaluation reports

The Human Resources authorization concept

The authorization concept for the *Time Sheet* is based on the concept used in *Human Resources*. In HR, you can assign authorizations in very fine degrees to meet your exact requirements.

Profile authorization groups for entering working times

The role assigned to users contains all of the required authorization objects for the *Time Sheet*. Authorizations for entering and reading data are assigned according to the data entry profile. This enables you to control that

- Employees enter only their own personal data
- Central time administrators or data entry personnel can only maintain data for employees assigned to them
- Users can only choose from data entry profiles that are relevant to their area of work

When you maintain your profiles for the Time Sheet, you can organize them into *profile authorization groups*. Using all of the options available in *Human Resources*, you can assign the groups authorizations to read or maintain data.

Using dummy infotypes

The HR authorizations required to display and maintain personal data are supplemented by two other types of authorizations for the *Time Sheet*, for

1. Displaying and entering data in the time sheet
2. Displaying and approving data using time sheet reports

Time sheet data is represented in dummy infotypes for this purpose.

Dummy infotype 0316	Infotype 0316 represents the authorization for data entry profiles. The subtypes of this infotype are the profile authorization groups.
Dummy infotype 0328	Infotype 0328 represents the authorization for reporting and approval.

It is very important to note that these infotypes do not actually exist in the system. They are only used to access the HR authorization concept in order to assign authorizations to read, change, or approve time sheet data.

For more information, see the Implementation Guide for the *Time Sheet*. Choose *Time Sheet* → *Authorizations.*

See also: Example: HR Authorizations for Entering Data in the Time Sheet [Seite 170]

Example: HR Authorizations for Entering Data in the Time Sheet

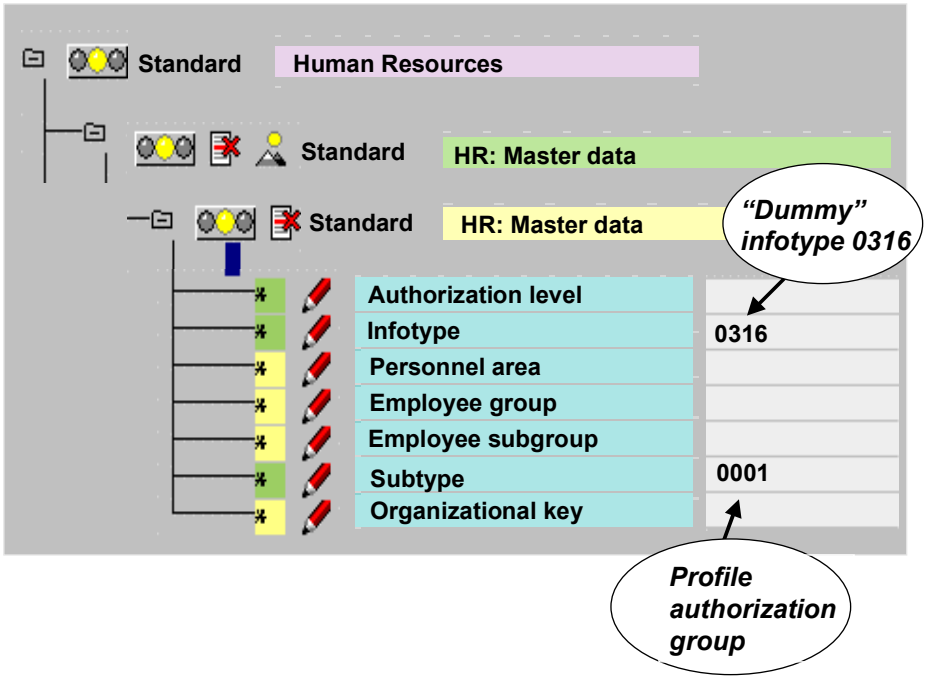
The system automatically provides you with the authorization objects you require for the *Time Sheet* when you maintain your roles.

Authorization object: HR master data

You use this authorization object to maintain the authorizations that a user requires to enter data for his or her own personnel number.

Assigning authorization for a Human Resources infotype

Authorizations for reading and entering data in *Human Resources* infotypes containing employee data are assigned on an infotype or, for some infotypes, on a subtype level.



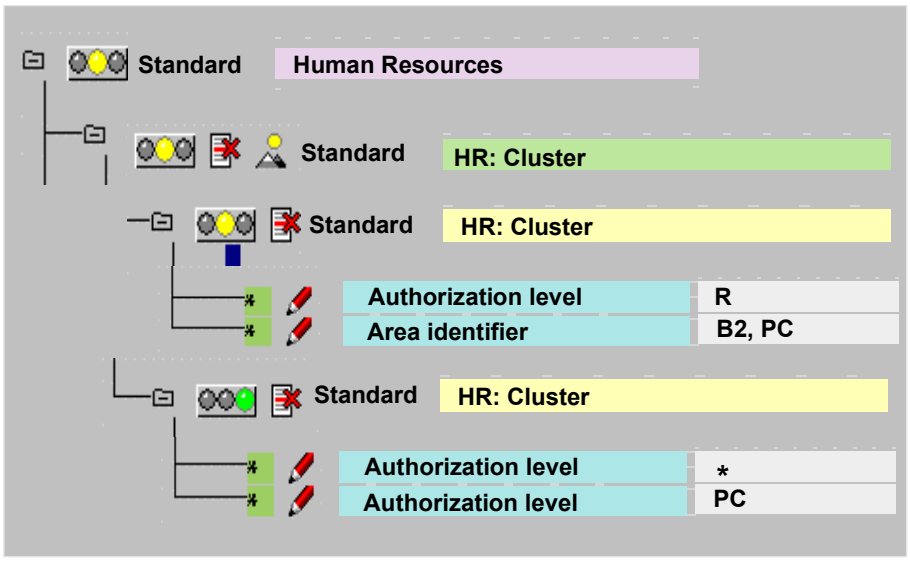
Users are authorized to use all data entry profiles assigned to profile authorization group 0001.

Authorization object: HR clusters

You only need to maintain this authorization object if you implement HR and if you:

- Record absences using the *Time Sheet*. This authorization is required for absences to be validated against leave quota.
- Determine target hours based on the results of time evaluation They are read from cluster B2.

Example: HR Authorizations for Entering Data in the Time Sheet



Time Sheet Data Archiving

Use

By archiving time sheet data, you can remove time sheet data you no longer immediately require to an external file and improve the performance of the CATSDB database table for the *Time Sheet*. You archive time sheet data using the archiving object [Extern] CATS_DATA, which is provided as part of *SAP Data Archiving*.

For more general information on *Archiving*, see the Introduction [Extern].

For more specific information on archiving data from the *Time Sheet*, see the SAP Library. Choose Cross-Application Components → CA Application Data Archiving → CA Cross-Application Functions → Time Sheet Data Archiving (CA-TS) [Extern].

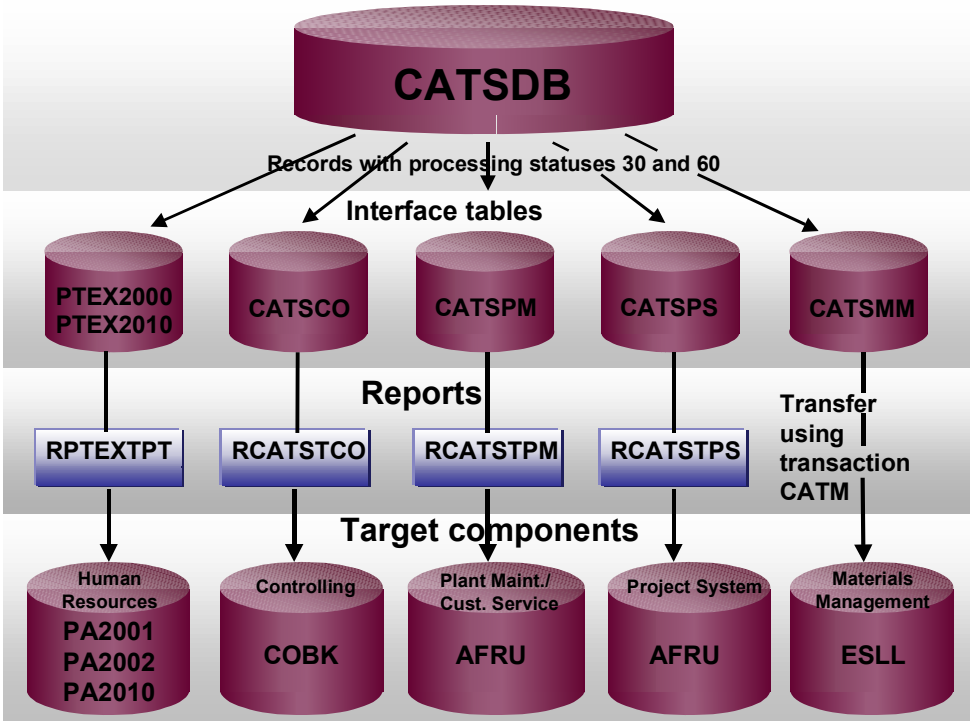
Activities

To call *Archiving*, choose *Time Sheet* → *Tools* → *Archiving*.

Technical Background to the Time Sheet

The purpose of this section is to familiarize you with the technical processes in the Time Sheet. The graphic below shows which tables the system uses to process the recorded time sheet data.

Technical Processes of the Time Sheet



1. All recorded time sheet data is stored in the database table for the Time Sheet, CATSDB [Seite 177].

2. The system automatically writes time sheet data that has the status 30 or 60 to the relevant interface tables [Seite 181].

- *Human Resources* (PTEX2000 and PTEX2010)
- *Controlling* (CATSCO)
- *Plant Maintenance/Customer Service* (CATSPM)
- *Project System* (CATSPS)
- *Materials Management* (CATSMM)

  The system determines which data belongs in which interface tables based on the working time attributes [Extern] entered for the record.

3. When the data transfer report [Seite 103] is executed, the data is transferred from the interface tables to the corresponding target components. Data is transferred to Materials

Management using transaction CATM. The data is transferred from the interface tables to the following tables for the target components:

Human Resources	PA2001 (*Absences* infotype); PA2002 (*Attendances* infotype); PA2010 (*EE Remuneration Info* infotype).
Controlling	COBK (*CO Object: Document Header*)
Plant Maintenance/Customer Service	AFRU (*Order Completion Confirmations*)
Project System	AFRU (*Order Completion Confirmations*)
Materials Management	ESLL (*Lines of Service Package*)

Each of these tables contains a key, which corresponds to the BELNR (document number) field in table CATSDB. The system uses this key to form a link with the record in table CATSDB. The keys have the following names in the tables:

PA2001, PA2002, PA2010	AWREF
COBK	REFBN
AFRU	CATSBELNR
ESLL	BELNR

More information on the target components

Controlling

Two other tables are important for Controlling: CATSCOSUM (*Data Transfer: Time Sheet → CO Summarization Table*) and CCATSCOSUM (*Settings: Summarization Time Sheet Data → CO*). You use these tables to control how records are summarized when filling CO documents [Extern].

- Table CCATSCOSUM is the Customizing table in which you enter whether and, if so, how the time sheet data is summarized.
- The system uses table CATSCOSUM to form a link between a record of table CATSDB and the CO document to which the record is transferred. Table CATSCOSUM is only filled if you have determined that records are to be summarized for transfer.

If your Customizing settings determine that the transferred time sheet data is summarized, the *Counter* field in CATSCOSUM corresponds to the field with the same name in CATSCO. However, when the records are summarized, there is no longer a 1:1 relationship between the *Counter* (COUNTER) and *Document number* (TRANS_NO) fields in CATSCOSUM. A value in the *Document number* field (TRANS_NO) refers in most cases to several counters (COUNTER) in CATSCOSUM.

Table COBK (*CO Object: Document Header*) is the table in Controlling to which the time sheet data is transferred. This table contains one entry in the *Reference document number* field (REFBN) for each different *document number* (TRANS_NO) in CATSCOSUM.

In the CATSCOSUM table, *counters* 100, 101, 102, 110, 114, and 120 are stored with the *document number* (TRANS_NO) 10 and *counters* 103 to 109 and 113 and 122 with *document number* (TRANS_NO) 11. In table COBK then, there are two entries in the *Reference document number* field (REFBN): 10 and 11.

If you specified in your Customizing settings that time sheet data is not summarized for transfer to Controlling, CATSCOSUM is not filled with these records. In this case, there is a 1:1 relationship between the *Document number* field (BELNR) in table CATSDB and the *Reference document number* field (REFBN) in table COBK.

If there are inconsistencies in the data in Controlling, we recommend you call the *Display CO Cost Segments* transaction (RKACSHOW). You can use this transaction to display information on data statuses and totals records in Controlling tables.

For information on how to proceed if confirmations lead to CO documents with errors, see note 0155282 (CO Docs for Confirmations: Correction Programs).

Other tables in Controlling that you should be familiar with in this context are:

- COEP (*CO Object: Line Items (by Period)*)
- COSS (*CO Object: Cost Totals for Internal Postings*)
- COEPL (*CO Object: Line Items for Activity Types (by Period)*)
- COSL (*CO Object: Activity Type Totals*)

A CO document consists of line items, which represent the values of a record. The line items are stored in tables COEP or COEPL. Tables COSS and COSL contain the period totals of all the actual postings to a CO object.

Materials Management

When time sheet data is transferred to *Materials Management*, table ESLL (*Lines of Service Package*) and table ESSR (*Service Entry Sheet Header Data*) are supplied with data. The *Package number* (PACKNO) field forms the link between the two tables.

The time sheet record is referenced in table ESLL by the *Document number* (BELNR) field. However, in *Materials Management,* you can only identify the record uniquely in connection with table ESSR.

Plant Maintenance/Customer Service and Project System

If you transfer data to *Plant Maintenance/Customer Service* (PM/CS) or to *Project System* (PS), you trigger an internal activity allocation. For this reason, the data is also transferred to *Controlling*. If goods movements are defined in your order, the data can also be relevant for *Materials Management* (MM).

If data is transferred successfully, the system writes it to the relevant tables in the target components. For PM/CS and PS the relevant table is AFRU. For *Controlling* the table is COBK and for *Materials Management,* tables MKPF and MSEG.

If errors occur when data is transferred to PM/CS or PS, the system stores the data containing errors in the following tables:

Confirmations with errors	AFRH, AFRV
Actual costs with errors	AFRC

Goods movements with errors	AFFW

Once you have processed the errors, the system posts the data in the target components.

The Database Table for the Time Sheet (CATSDB)

Definition

The database table for the Time Sheet (CATSDB) contains all the data that has been recorded using the Time Sheet.

Use

As soon as a user has entered and saved data in the time sheet, the system writes the record to table CATSDB. When the records have the processing status 30 (*Approved*) or 60 (*Canceled*), the system writes them to the relevant interface tables [Seite 181] in *Human Resources*, *Controlling*, *Plant Maintenance/Customer Service*, *Project System*, and *Materials Management,* based on the working time attributes [Extern] that have been entered.

Structure

Listed below are important fields which are filled for each record regardless of its working time attributes or in the case of the reference counter, can be filled:

- Personnel number
- Processing status [Seite 184]
- Counter

  Each record that is stored in table CATSDB is assigned a counter. The counter is assigned by the system and is 12 digits long.

- Reference counter

  If a record with the processing status 30 (*Approved*) is changed, the system also assigns it a reference counter. The reference counter is also 12 digits long.

  A reference counter is assigned as follows: The original record is retained and its processing status is changed from 30 (*Approved*) to 50 (*Changed after approval*) or 60 (Canceled [Seite 185]). At the same time, the system creates a new record to reflect the changes. The new record is assigned the processing status 10 (*In process*), 20 (*Released*), or 30 (*Approved*), depending on your profile settings. The new record is assigned a reference counter to link it to the original record, which now has the status 50 or 60. The reference counter corresponds to the counter of the original record.

- Document number

  As soon as a record has the processing status 30 (*Approved*), the system assigns it a document number. The document number is assigned sequentially and is 10 digits long. The document number represents the key for identifying the record, even after it has been transferred to the target components.

In addition, the system also provides information on the person who created the record, when the record was created, and, if necessary, on the person who changed the record and when it was changed. You can also see whether a short or long text exists for the record.

Connections between the processing status, counter, reference counter, and document number

The four graphics below show in detail the connections between the processing status, counter, reference counter, and document number. The graphics illustrate the processes that take place in table CATSDB when a record is created or changed, according to the settings for the data entry profile. To make the graphics clearer, the field values for the counter, reference counter, and document number are shown in a shorter form.

Scenario 1: Release and approval not required

Action	Data record	Hours	Status	Counter	Ref.counter	Doc.no.
		CATSHOURS	STATUS	COUNTER	REFCOUNTER	BELNR
Record	New	8	30	1000	-	100
Change*	Original	8	60	1000	-	100
	Changed	6	30	1001	1000	101

Scenario 2: Release required, approval not required

Action	Data record	Hours	Status	Counter	Ref.counter	Doc. no.
		CATSHOURS	STATUS	COUNTER	REFCOUNTER	BELNR
Record	New	8	10	2000	-	-
Release	Original	8	30	2000	-	200
Change*	Original	8	50	2000	-	200
	Changed	6	10	2001	2000	-
Release	Original	8	60	2000	-	200
	Changed	6	30	2001	2000	201

Scenario 3: Release not required, approval required

Approval granted

Action	Data record	Hours CATSHOURS	Status STATUS	Counter COUNTER	Ref.counter REFCOUNTER	Doc. no. BELNR
Record	New	8	20	3000	-	-
Approve	Original	8	30	3000	-	300
Change*	Original	8	50	3000	-	300
	Changed	6	20	3001	3000	-
Approve	Original	8	60	3000	-	300
	Changed	6	30	3001	3000	301

Approval denied

Record	New	8	20	3010	-	-
Reject	Original	8	40	3010	-	-
Change rej. recs	Original	6	20	3010	-	-

Scenario 4: Release and approval required

Approval granted

Action	Data record	Hours CATSHOURS	Status STATUS	Counter COUNTER	Ref.counter REFCOUNTER	Doc.no. BELNR
Record	New	8	10	4000	-	-
Release	Original	8	20	4000	-	-
Approve	Original	8	30	4000	-	400
Change*	Original	8	50	4000	-	400
	Changed	6	10	4001	4000	-
Release	Original	8	50	4000	-	400
	Changed	6	20	4001	4000	-
Approve	Original	8	60	4000	-	400
	Changed	6	30	4001	4000	401

Approval denied

Record	New	8	10	4010	-	-
Release	Original	8	20	4010	-	-
Reject	Original	8	40	4010	-	-
Change rej. recs	Original	6	10	4010	-	-

*If a record is canceled, the number of hours it contains is changed to zero. Therefore, when a record is canceled, the same processes are started in table CATSBD as if the record had been changed.

The Interface Tables for the Time Sheet

Definition

The interface tables for the Time Sheet are used to provide time sheet data for transfer to the corresponding target components.

Use

The system writes data that has the processing status 30 (*Approved*) or 60 (*Canceled*) from the database table CATSDB [Seite 177] to the interface tables for the Time Sheet. This data is then available for transfer to the target components.

The system determines which are the relevant interface tables for the data based on the working time attributes [Extern] used when the record was created. Data that is entered with an attendance, for example, is written to the *Human Resources* interface table, PTEX2000. A record is often written to more than one interface table because it has been created with working time attributes that belong to different target components [Seite 103].

Structure

Human Resources interface tables (PTEX2000, PTEX2010, and PTEXDIR)

PTEX2000 (*Interface Table for Attendances/Absences Infotypes (2002/2001)*) and PTEX2010 (*Interface Table for EE Remuneration Info. Infotype (2010)*) contain the time sheet data that you can transfer to *Human Resources*. The report generates infotype records for the *Attendances* (2002), *Absences* (2001), or *EE Remuneration Info* (2010) infotypes from the transferred records.

The important fields in the interface tables are:

AWKEY	Object key	Corresponds to the BELNR field in table CATSDB.
STOKZ	Cancelation indicator	A record is assigned a cancelation indicator when it has the processing status 60 (Canceled [Seite 185]) in table CATSDB.
AWART	Attendance/absence type	Field in table PTEX2000. Specifies the attendance or absence type for the recorded hours.
LGART	Wage type	Field in table PTEX2010. Contains the wage type for the record.
DATUM1	Date	Specifies the date on which the record was written to the interface table.*
DATUM2	Date	Specifies the date of the record's initial transfer to *Human Resources*.*
DATUM3	Date	Specifies the date on which the record was last accessed.*
DATUM4	Date	Specifies the date of the record's first successful transfer to *Human Resources*.*

STATU2/STATU 3	Status	The system assigns a record in PTEX2000/2010 a log status for its first and last transfer. You use this status to see whether the transfer was successful or whether errors occurred. The system assigns the following statuses: 0 or blank: Record is new; it has not yet been transferred. 1: Record has been successfully transferred. 2: Errors occurred during transfer; the record could not be posted. 3: Record is locked. 4: A record has been canceled. The original and changed (canceled) record cancel each other out. They are not transferred but remain in the interface table.

*The same is true of the *User* (UNAME1-4), *Time* (UZEIT1-4), and *Program* (PGMID1-4) fields.

Human Resources directory table PTEXDIR

Table PTEXDIR is a directory table. The system uses it to check whether the combination of *Logical system of source* (LOGSYS), *Reference procedure* (AWTYP), and *Object key* (AWKEY) is unique. If the combination is not unique, the system excludes the relevant records from the transfer. The system does not transfer data from table PTEXDIR to other components.

Interface tables for the other target components

The interface tables in *Controlling* (CATSCO), *Plant Maintenance/Customer Service* (CATSPM), *Project System* (CATSPS), and *Materials Management* (CATSMM) each contain the following fields, which are filled with time sheet data:

- Document number (BELNR)
- Counter (COUNTER)
- Hours (CATSHOURS)

  These three fields (BELNR, COUNTER, CATSHOURS) correspond to the fields with the same names in table CATSDB.

- Transfer indicator (TRANSFER)

  The transfer indicator specifies whether a record has already been transferred from an interface table to the corresponding target component. You can delete [Seite 166] these records from the interface table.

- Cancelation indicator (STOKZ)

  A record is assigned a cancelation indicator when it has the processing status 60 (Canceled [Seite 185]) in table CATSDB.

Processing Status

Definition

Information on the current position of time sheet records in the processing or approval procedure. The system assigns a processing status to every record written to the CATSDB database table for the *Time Sheet*.

Structure

Status	Description	Icon	Meaning
10	In process	-	The record is being processed and is not yet ready for transfer to the target components.
20	Released for approval		The record has been released and is ready for approval or rejection by the person responsible.
30	Approved		The record has been approved [Seite 65] and is ready for transfer to the target components.
40	Approval denied		The record has been rejected [Seite 39]. It cannot be transferred to the target components.
50	Changed after approval	-	An approved record has been changed. The original record is assigned this status until the new record has been approved. A reference counter allows you to track the new record back to the original record. Once the new record has been approved, the original record is assigned status 60 (Cancelled).
60	Cancelled	-	The record was cancelled [Seite 37] after approval. You cannot cancel a record if your profile settings determine that approved data may not be changed.

If your profile settings determine that no approval procedure is required, the system skips the *Released for approval* status. Records are then assigned the *Approved* status as soon as you release them. If your profile settings also determine that data is released automatically on saving, records are assigned the *Approved* status when you save them.

Cancelation of Time Sheet Data

Use

A user can cancel data that has already been recorded and saved in the time sheet by deleting, or changing to zero ("0"), the cell contents (hour, unit of measurement, amount) and, if necessary, the start and end clock times and the full day indicator. If you want the system to treat the record as canceled, the following fields must be blank in the database table for the Time Sheet (CATSDB [Seite 177]).

- CATSHOURS (hours)
- CATSQUANTITY (number (unit of measure))
- CATSAMOUNT (amount)
- BEGUZ (start time)
- ENDUZ (end time)
- ALLDF (entire day)

If a time sheet record is canceled, the following processes are triggered in the relevant tables:

The database table for the Time Sheet (CATSDB)

The original record is assigned the processing status [Seite 184] 50 (*Changed after approval*) or 60 (*Canceled*). Which of these statuses the system assigns depends whether or not the record must be approved. If approval is required, the system first assigns the record status 50 and then 60 once it has been approved. If no approval is required for the record, it is assigned status 60 straight away.

The system creates a new record for the canceled record. The new record is linked to the original record by a *reference counter*. The *reference counter* of the new (canceled) record corresponds to the *counter* of the original record. Depending on your Customizing settings, the new record may also need to be released or approved.

The same principle applies to records whose cell content (number of hours, unit of measurement, amount) is changed after approval to an amount other than zero.

The interface tables of CO, HR, PM/CS, PS

In the interface tables [Seite 181], the system creates an almost identical record with *cancelation indicator* (STOKZ) for a record in table CATSDB with the processing status 60 (*Canceled*). The new record has the same number of hours and *document number* in the interface tables as the original record and, in addition, a *cancelation indicator.*

The system uses the *document number* to form the link between the original and the cancelation record. The document number is stored in the *Human Resources* interface tables (PTEX2000 and PTEX2010) in the AWKEY field. In the other interface tables, you can find the document number in the BELNR field.

If you cancel a record before it is transferred to the target components, the system transfers neither the original nor the cancelation record. In *Human Resources,* both records remain in the

interface tables for *Human Resources*. In the other target components, the system deletes the original record and the cancelation record from the interface tables.

If you cancel a record that has already been transferred to the target components, the system also transfers the cancelation record, that is the record assigned the cancelation indicator.

The following applies for *Materials Management*: If a record is canceled **after** it has been transferred, the cancelation record cannot be transferred to *Materials Management*. In this case, the record must be canceled in *Materials Management*.

Posting canceled records in the target components

If a record is canceled before it is transferred to the target components, the system transfers neither the original nor the cancelation record to the target components.

If the record is canceled after it has been transferred, the cancelation records are posted in the target components as follows:

Controlling

The system posts the cancelation record as a negative record. If the original record contains, for example, 8 hours, the system posts the cancelation record with - 8 hours.

Human Resources

The *cancelation indicator* enables the system to recognize that both original records cancel each other out. The system deletes the original record from the relevant infotypes (PA2001, PA2002, and PA2010) based on this information.

Plant Maintenance/Customer Service (PM/CS) and Project System (PS)

The system creates a reversal document in the relevant target component.

Transferring canceled data to PM/CS can adversely affect system performance. For more information, see the documentation for the data transfer reports RCATSTPM or RCATSTPS.

Materials Management

A cancelation record cannot be transferred to *Materials Management*. For this reason, you should only make changes to records that have already been transferred in the *Materials Management* component.

Example: Recording Attendances for Human Resources

An employee, David Andersen, records eight attendance hours for last Thursday and for last Friday. His data entry profile determines that he does not have to release her data in a separate step. As soon as David has saved the data, it is made available to his superior, Joy Flanders, for approval.

Joy approves the recorded data the same day. Every evening, attendance and absence data recorded in the time sheet is transferred to *Human Resources*. This means that the next day both records have already been transferred. David Andersen notices, however, that he recorded one hour too few for Friday. He changes the record for Friday to nine hours. He informs his superior, who then approves the changed record.

That evening, the time sheet data is transferred to *Human Resources* as usual. However, David's changed record cannot be transferred because his payroll area is locked during the transfer. The next morning, the data records that could not be posted to *Human Resources* are transferred again. This time, David's record is transferred successfully.

Processes in the tables

The above example is represented in the database table for the Time Sheet [Seite 177] CATSDB as follows:

CATSDB: Database Table for the Time Sheet

Action	Date	Hours CATSHOURS	Status STATUS	Counter COUNTER	Ref.counter REFCOUNTER	Doc. No. BELNR
Record	Thursday	8	20	5000	-	-
	Friday	8	20	5001	-	-
Approve	Thursday	8	30	5000	-	500
	Friday	8	30	5001	-	501

Record was changed after being it was successfully transferred

Action	Date	Hours CATSHOURS	Status STATUS	Counter COUNTER	Ref.counter REFCOUNTER	Doc.no. BELNR
Change	Friday (orig.)	8	50	5001	-	501
	Friday (new)	9	20	5002	5001	-
Approve	Friday (orig.)	8	60	5001	-	501
	Friday (new)	9	30	5002	5001	502

David Andersen records eight hours for Thursday and for Friday. He does not have to release the data in a separate step, which means that when he saves the data, the system assigns it the processing status [Seite 184] 20 (*Released for approval*) and writes it to CATSDB.

Example: Recording Attendances for Human Resources

As soon as Joy Flanders approves the recorded data, it is assigned the processing status 30 (*Approved*). As soon as a record has the processing status 30 (*Approved*), the system assigns it a document number. To make the example clearer, the document number is not shown in its full 12-digit form (as in table CATSDB).

David Andersen now changes the data record from Friday, which has already been approved. You can recognize a record that has already been approved by its processing status and reference counter. The original record (in this example, the record from Friday with eight hours, counter 5001, and document number 501) is assigned the processing status 50 (*Changed after approval*). At the same time, the system creates a new record with the following specifications: Nine hours, status 20, counter 5002, and **reference counter** 5001. The reference counter forms the link with the original record. Once the changed record has been approved, the original record is assigned the processing status 60 (Canceled [Seite 185]) and the new record the processing status 30 (*Approved*) and a document number (502).

Transferring data to a target component has no effect on the dataset of table CATSDB.

Now we want to know what has happened in the interface table for attendances/absences (PTEX2000) during these processes. This is represented in the graphic below:

PTEX2000 - Interface Table for the Attendances and Absences infotypes (2002/2001)

Action	Date	Hours STDAZ	Obj. Key AWKEY	Canc. Ind. STOKZ	Status STATU2	Status STATU3
Approve	Thursday	8	500	-	-	-
	Friday	8	501	-	-	-
Transfer	Thursday	8	500	-	1	1
	Friday	8	501	-	1	1
Change	Friday	8	501	-	1	1
Approve	Friday (orig.)	8	501	-	1	1
	Friday (orig.)	8	501	X	-	-
	Friday (new)	9	502	-	-	-
Transfer	Friday (orig.)	8	501	-	1	1
	Friday (orig.)	8	501	X	2	2
	Friday (new)	9	502	-	2	2
Repeat	Friday (orig.)	8	501	-	1	1
Transfer	Friday (orig.)	8	501	X	2	1
	Friday (new)	9	502	-	2	1

In this example, David Andersen has recorded two attendances. He entered an attendance type as a working time attribute for the working hours. Based on this working time attribute, the system determines that the recorded data is relevant for the *Human Resources* interface table.

Once Joy Flanders has approved the recorded attendances, the system writes them to the interface table PTEX2000. In the interface table PTEX2000, the *Object key* field (AWKEY) is used to form a link with the record of table CATSDB, because the *object key* corresponds to the *document number* in CATSDB.

After the data has been transferred successfully, the system assigns two further statuses. Based on these statuses, you can see whether the transfer was successful or, if errors occurred, what

type of errors they were. In this example, the initial transfer was successful, an error occurred during the second, and the third was again successful.

For more information, see: The Interface Tables for the Time Sheet [Seite 181]

If a record has been changed after approval, the interface table PTEX2000 contains three records for the changed record: The original record **without** the cancelation indicator, the original record **with** the cancelation indicator, and the new record. The cancelation indicator enables the system to recognize that both original records cancel each other out. Since the original record had already been transferred, the system also transfers the original record **with** the cancelation indicator during the next transfer, so that the original records cancel each other out in *Human Resources.* If the original record had not yet been transferred, both original records would remain in the interface table and neither would be transferred to *Human Resources.*

A directory table exists in addition to the two *Human Resources* interface tables. In this example, the following information is stored in this table:

PTEXDIR - Interface Table for Infotypes (Directory Table)

Action	Date	Obj. Key AWKEY	Canc. ind. STOKZ
Approve	Thursday	500	-
	Friday	501	-
Transfer	Thursday	500	-
	Friday	501	-
Change	Friday	501	-
Approve	Friday (orig.)	501	X
	Friday (new)	502	-
Transfer	Friday (orig.)	501	X
	Friday (new)	502	-
Repeat Transfer	Friday (orig.)	501	X
	Friday (new)	502	-

The system stores the approved attendance data in table PTEXDIR, as for PTEX2000. This table also contains an *object key* (AWKEY), which corresponds to the *document number* in table CATSDB and forms the link with the record in CATSDB.

For more information, see: The Interface Tables for the Time Sheet [Seite 181].

After the data has been transferred, the system writes the following records to the *Attendances* infotype (table PA2002):

PA2002 - *Attendances* infotype (2002)

Action	Date	Att. hrs STDAZ	Ref. doc. AWREF
Transfer	Thursday	8	500
	Friday	8	501
Change	Friday	8	501
Approve	Friday	8	501
Transfer	Friday (new)	8	501
Repeat transfer	Friday (new)	9	502

As the graphic shows, this table also contains a link to table CATSDB: The CATSDB *document number* is stored as the *reference document* in table PA2002. At the same time, the *reference document* in table PA2002 corresponds to the *object key* in the *Human Resources* interface table.

In this example, the original record from Friday remains in table PA2002 until the changed record has been posted in *Human Resources* during the repeat transfer.

The original record is then deleted from table PA2002 because, during the repeat transfer, the original record is transferred with the cancelation indicator. The cancelation indicator enables the system to recognize that the original record must be deleted. The new record is then stored in its place. If the change to the record had been a cancelation, there would now no longer be a record stored in table PA2002 for that Friday.