

# Connection to External Time Management Systems



HELP.PT-BFA

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## Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax
	Tip

## Contents

<b>Connection to External Time Management Systems.....</b>	<b>5</b>
<b>Providing SAP Time Management with External Time Data .....</b>	<b>7</b>
<b>Process Flow for Providing R/3 Time Management with External Time Data.....</b>	<b>9</b>
Checking Time Data.....	11
Checking Data into the Human Resources (HR) System .....	12
<b>Providing SAP Time Management with External Time Wage Types.....</b>	<b>13</b>
<b>Process Flow for Providing R/3 Time Management with External Time Wage Types .....</b>	<b>15</b>
Checking External Wage Types.....	17
Transferring External Wage Types to the HR System.....	18
<b>Supplying R/3 Time Management with Operative Planned Working Time.....</b>	<b>19</b>
<b>Transfer of Operative Planned Working Time to the HR System.....</b>	<b>20</b>

## Connection to External Time Management Systems

### Use

This function enables time data and external wage types recorded in an external time management system to be transferred to *Time Management* (PT).

### Integration

There are two options for connecting to external time management systems:

1. Providing *R/3 Time Management* with external time data

In this case, either time durations (such as 8 hours) or time intervals (such as 7:00 a.m. to 4:00 p.m.) are recorded in external systems.

After the transfer, the data is stored either the [Attendances \[Ext.\]](#) (2002) or the [Absences \[Ext.\]](#) (2001) infotypes.

2. Providing *R/3 Time Management* with external time wage types

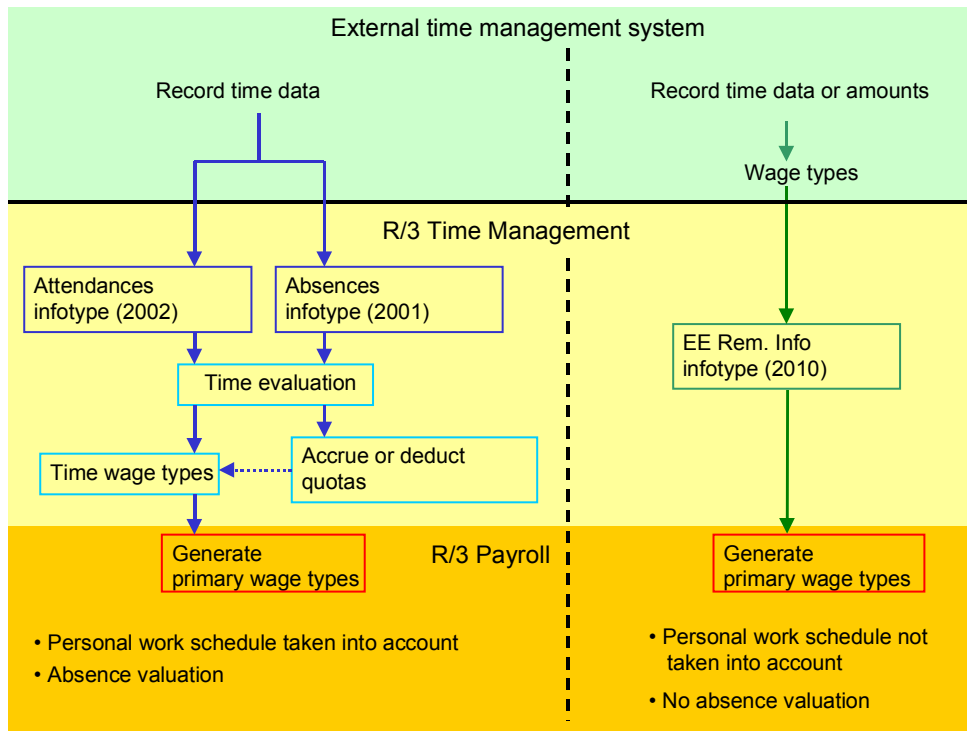
After the transfer, the data is stored in the *EE Remuneration Info* infotype (2010).



If your employees enter their attendance times themselves at time recording terminals (clock-in and clock-out entry), you can then transfer this data (entry times) to *R/3 Time Management* (PT) via the standardized interface **Communication Channel 1** (CC1).

For more information, see [Connecting from External Time Management Systems \[Ext.\]](#).

Connection to External Time Management Systems



By transferring time data, you benefit from the full range of functions provided by the *R/3 Time Management* component. For example, you can process quota accrual and quota deduction. Then, in *Payroll*, the employee's personal work schedule is taken into consideration, ensuring that the appropriate time management data is accessed in order for employee absences to be correctly valued.



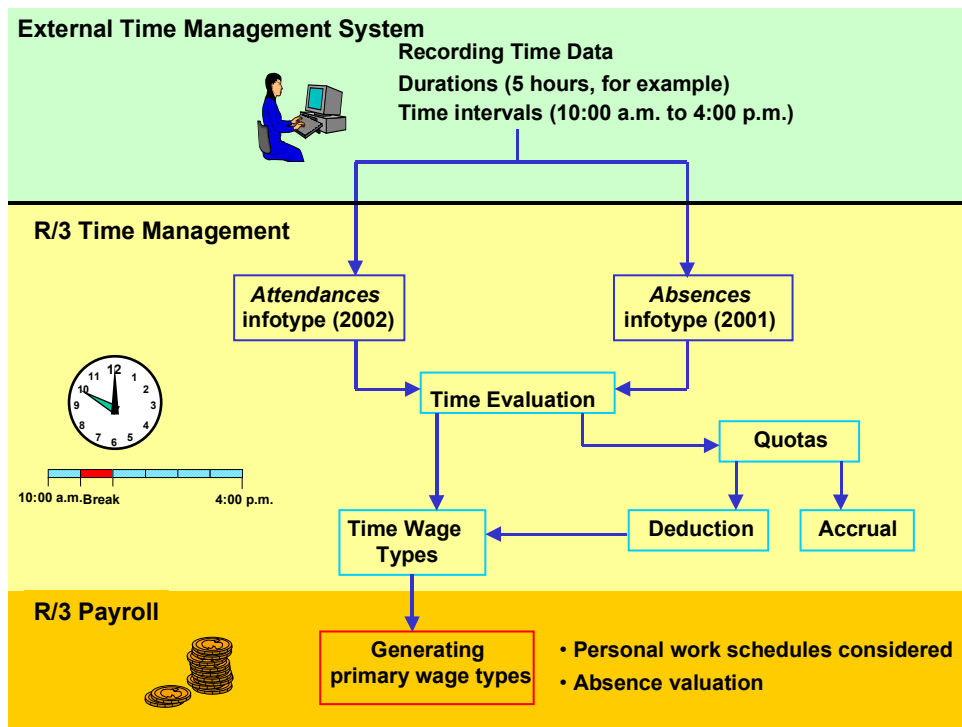
In addition to these two variants, the *Substitutions* infotype (2003) in *R/3 Time Management* can also be supplied with external operative planned working time. For more information, see [Supplying R/3 Time Management with Operative Planned Working Time \[Page 19\]](#).

## Providing SAP Time Management with External Time Data

### Use

This function enables time data that is recorded in an external time management system to be transferred to SAP Time Management (PT).

### Integration



Time data is recorded as time intervals or durations in external time management systems. This time data is then transferred to SAP Time Management (PT)

Absences are stored in the Absences infotype (2001) and attendances in the Attendances infotype (2002) in SAP Time Management.

Time wage types are created during time evaluation. Employees' personal work schedules are taken into consideration. Quotas can also be taken into account in time evaluation.

Time wage types are imported by SAP Payroll. Primary wage types are then generated in SAP Payroll and used for running payroll for employees.

This version of transferring data from an external time management system takes full advantage of the complete functionality provided by SAP Time Management.



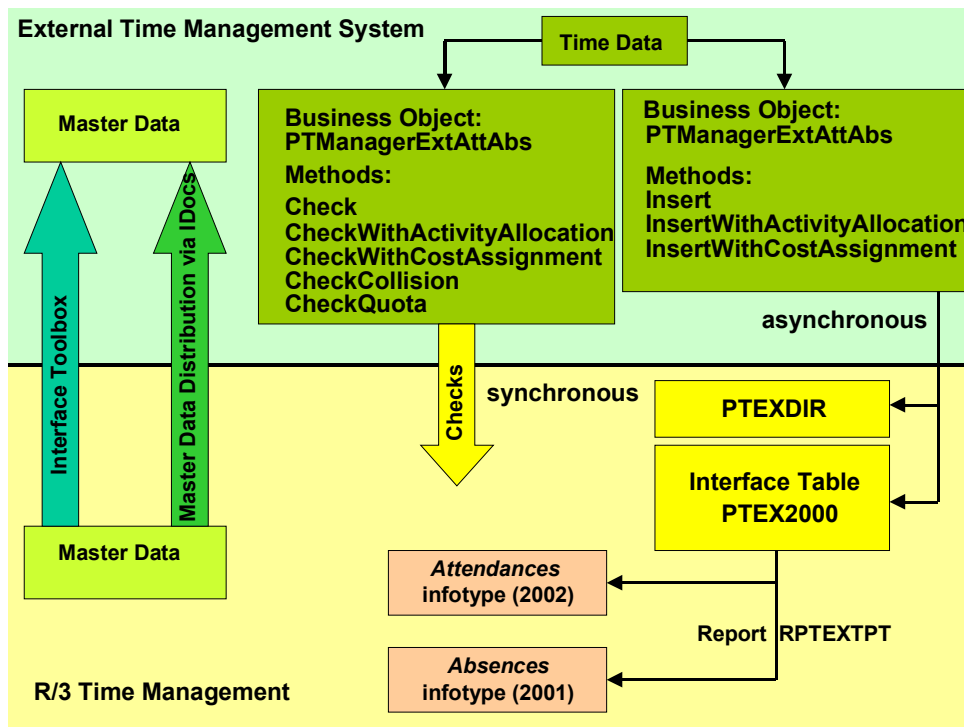


## Process Flow for Providing R/3 Time Management with External Time Data

### Purpose

Communication between external time management systems and the *R/3 Time Management* component during the transfer of external time data is described in more detail in this section.

### Process Flow



The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer by the [Interface-Toolbox \[Ext.\]](#)

A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer by [Master Data Distribution via IDocs \[Ext.\]](#)

In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

Checks can be performed during time recording. Checks are carried out synchronously in *R/3 Time Management*.

---

**Process Flow for Providing R/3 Time Management with External Time Data**

The transfer of time data to *R/3 Time Management* occurs asynchronously. Data for each IDoc are stored in the interface tables PTEXDIR and PTEX2000.

The report RPTEXTPT (*External Transfer → Time Management*) reads data from the interface table PTEX2000 and saves it in the *Absences (2001)* and *Attendances (2002)* infotypes.

## Checking Time Data

### Use

Plausibility checks in the *Absences* (2001) and *Attendances* (2002) infotypes can be performed before external time data is transferred.

### Features

Entries dealing with payscale groups and levels in the HR system are checked to verify if they are permitted for the applicable employees. During the check for activity allocation, the activity types entered are verified. During the check for cost assignment, the quota objects entered are verified.

Collision checks can also be performed. During collision checks, data records that are to be transferred from the external system to the HR system are checked against data recorded in infotypes 2001 and 2002 in the HR System, in order to prevent data from overlapping.

By simulating quota deduction, you can check whether enough remaining quota (available balance) exists.

### Interfaces

Export via this BAPI is synchronous.

#### Business Object

PTManagerExtAttAbs

#### Method

Check (Attendance/Absence without Account Assignment)

CheckWithActivityAllocation (Attendance/Absence with Activity Allocation)

CheckWithCostAssignment (Attendance/Absence with Cost Assignment)

CheckCollision (Collision Check)

CheckQuota (Check Quota Deduction)

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**Checking Data into the Human Resources (HR) System**

## Checking Data into the Human Resources (HR) System

### Use

Time data from external systems is stored in the interface tables PTEXDIR and PTEX2000 in *SAP Time Management*.

Report RPTEXTPT (*External Transfer → Time Management*) enables data to be read from the PTEX2000 file and then stored as absences or attendances in the *Absences (2001)* or *Attendances (2002)* infotypes.



The report RPTEXTPT (*External Transfer → Time Management*) can also be scheduled periodically as a batch job.

### Interfaces

Export via this BAPI is asynchronous.

### Business Object

PTManagerExtAttAbs

### Methods

Insert (Absence/Attendance without Account Assignment)

InsertWithActivityAllocation (Absence/Attendance with Activity Allocation)

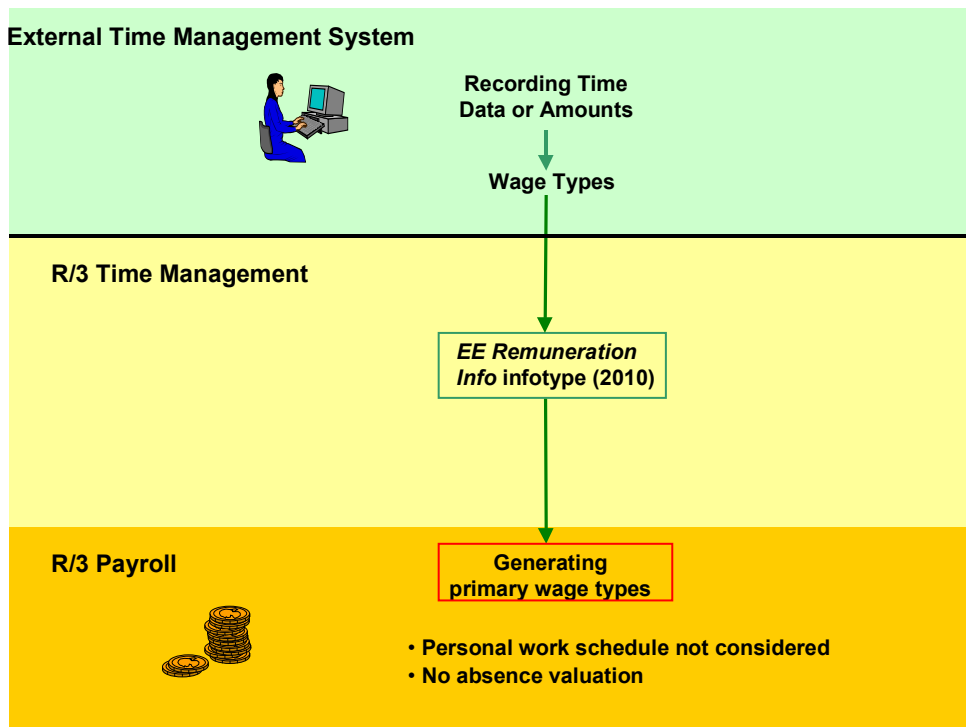
InsertWithCostAssignment (Absence/Attendance with Cost Assignment)

## Providing *SAP Time Management* with External Time Wage Types

### Use

This function enables time wage types generated in an external time management system to be transferred to *SAP Time Management* (PT).

### Integration



Time data is recorded in external time management systems. The corresponding wage types are already entered in the external system.

Time data is transferred with wage types to *SAP Time Management* and stored there as data records in the *EE Remuneration Info* infotype (2010).

Wage types are imported by *SAP Payroll*. Primary wage types are then generated in *SAP Payroll* and are used for running payroll for employees.

One disadvantage of this version of transferring data from an external time management system is that it does not take full advantage of the complete functionality provided by *SAP Time Management*. For example, employees' personal work schedules are not taken into consideration. In addition, quota processing can not take place.

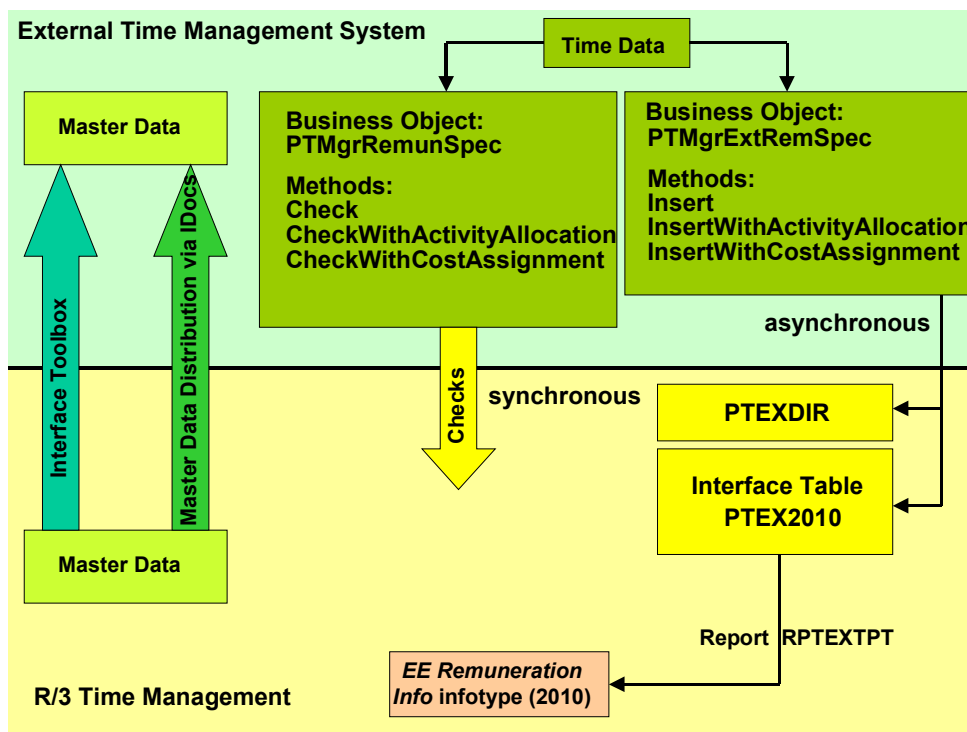


## Process Flow for Providing R/3 Time Management with External Time Wage Types

### Purpose

Communication between external time management systems and the *R/3 Time Management* component during the transfer of external time wage types is described in more detail in this section.

### Process Flow



The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer by the [Interface-Toolbox \[Ext.\]](#)

A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer by [Master Data Distribution via IDocs \[Ext.\]](#)

In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

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**Process Flow for Providing R/3 Time Management with External Time Wage Types**

Checks can be performed during time recording. Checks are carried out synchronously in *R/3 Time Management*.

The transfer of time data to *R/3 Time Management* occurs asynchronously. Data for each IDoc is stored in the interface tables PTEXDIR and PTEX2010.

The report RPTEXTPT (*External Transfer → Time Management*) reads data from the interface table PTEX2010 and saves it in the *EE Remuneration Info* infotype (2010).



## Checking External Wage Types

### Use

Plausibility tests for the *EE Remuneration Info* infotype (2010) can be performed prior to the transfer of external time data.

### Integration

Entries for wage types in the HR System are checked to verify if they are permitted for the applicable employees. During the check for activity allocation, the activity types entered are verified. During the check for cost assignment, the quota objects entered are verified.

### Interfaces

Export via this BAPI is asynchronous.

### Business Object

PTMgrExtRemunSpec

### Methods

Check (External Remuneration Info (without Account Assignment))

CheckWithActivityAllocation (External Remuneration Info (with Activity Allocation))

CheckWithCostAssignment (External Remuneration Info (with Cost Assignment))

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**Transferring External Wage Types to the HR System**

## Transferring External Wage Types to the HR System

### Use

Time data from external systems is stored in the interface tables PTEXDIR and PTEX2010 in *SAP Time Management*.

Report RPTEXTPT (*External Transfer → Time Management*) enables data to be read in the PTEX2010 file and then stored as data records in the *EE Remuneration Info* infotype (2010)



The report RPTEXTPT (*External Transfer → Time Management*) can also be scheduled periodically as a batch job.

### Interfaces

Export via this BAPI is asynchronous.

### Business Object

PTMgrExtRemunSpec

### Methods

Insert (External Remuneration Info in Table (without Account Assignment))

InsertWithActivityAllocation (External Remuneration Info in Table (with Activity Allocation))

InsertWithCostAssignment (External Remuneration Info in Table (with Cost Assignment))

## Supplying R/3 Time Management with Operative Planned Working Time

### Use

You can use this function to transfer operative planned working time that was recorded in an external time management system to *R/3 Time Management*.

### Prerequisites

The time management system must first be supplied with HR master data. Two options for transferring master data are as follows:

1. Data transfer using the [Interface-Toolbox \[Ext.\]](#)

A delta download providing the external system with master data takes place in this version of data transfer. The Interface Toolbox enables you to store master data in files that match the table structure of the external system. In this way, the tables of the external systems do not have to be modified to match the structures.

2. Data transfer using [Master Data Distribution via IDocs \[Ext.\]](#)

In this version of data transfer, all HR master data is replicated. In the external system, the applicable tables must be modified to match the structures of the IDocs. The ALE Distribution Model must always be maintained.

### Features

The transfer of operative planned working time to *R/3 Time Management* is asynchronous. The data is stored per IDoc in the interface tables PTEXDIR, PTEX2003GEN, and PTEX2003SPEC.

The report RPTEXTPT (*Transfer External Data → Human Resources*) reads data from the interface tables PTEX2003GEN and PTEX2003SPEC and stores it in the *Substitutions* infotype (2003). The system generates records for the *Substitutions* infotype (2003).

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**Transfer of Operative Planned Working Time to the HR System**

## Transfer of Operative Planned Working Time to the HR System

### Use

The operative planned working time from the external system is stored in the interface tables PTEX2003GEN, PTEX2003SPEC, and PTEXDIR in *R/3 Time Management*.

The report RPTEXTPT (*Transfer External Data → Human Resources*) then reads the data from the interface tables PTEX2003GEN and PTEX2003SPEC and stores it as substitutions in the *Substitutions* infotype (2003).



We recommend that you schedule the report RPTEXTPT to run periodically as a background job.

### Interfaces

Export via this BAPI is asynchronous.

#### Business Object

PTMgrExtWorkSched

#### Method

InsertWithCostAssignment