- R/3
- Release 4.6C
- May 2001
- 5004 5002

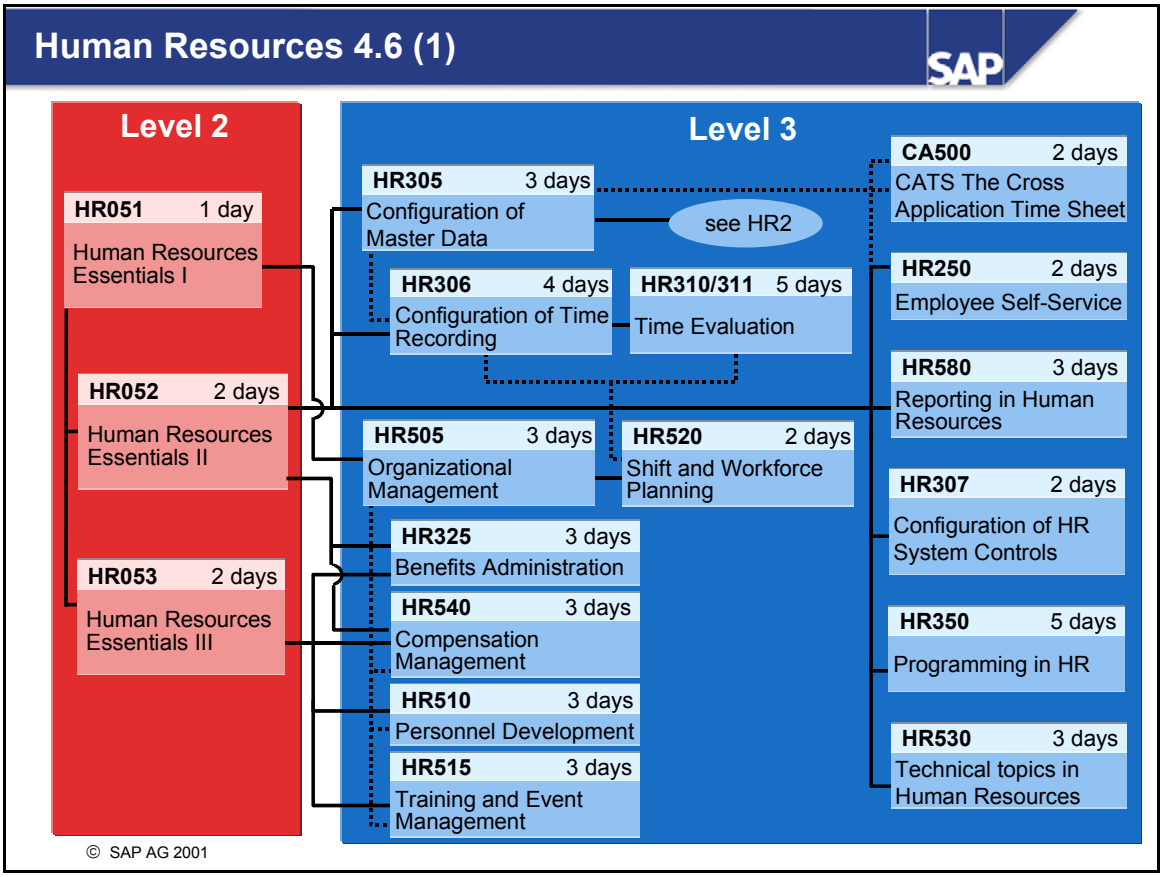
Internal Use SAP Partner Only

Copyright

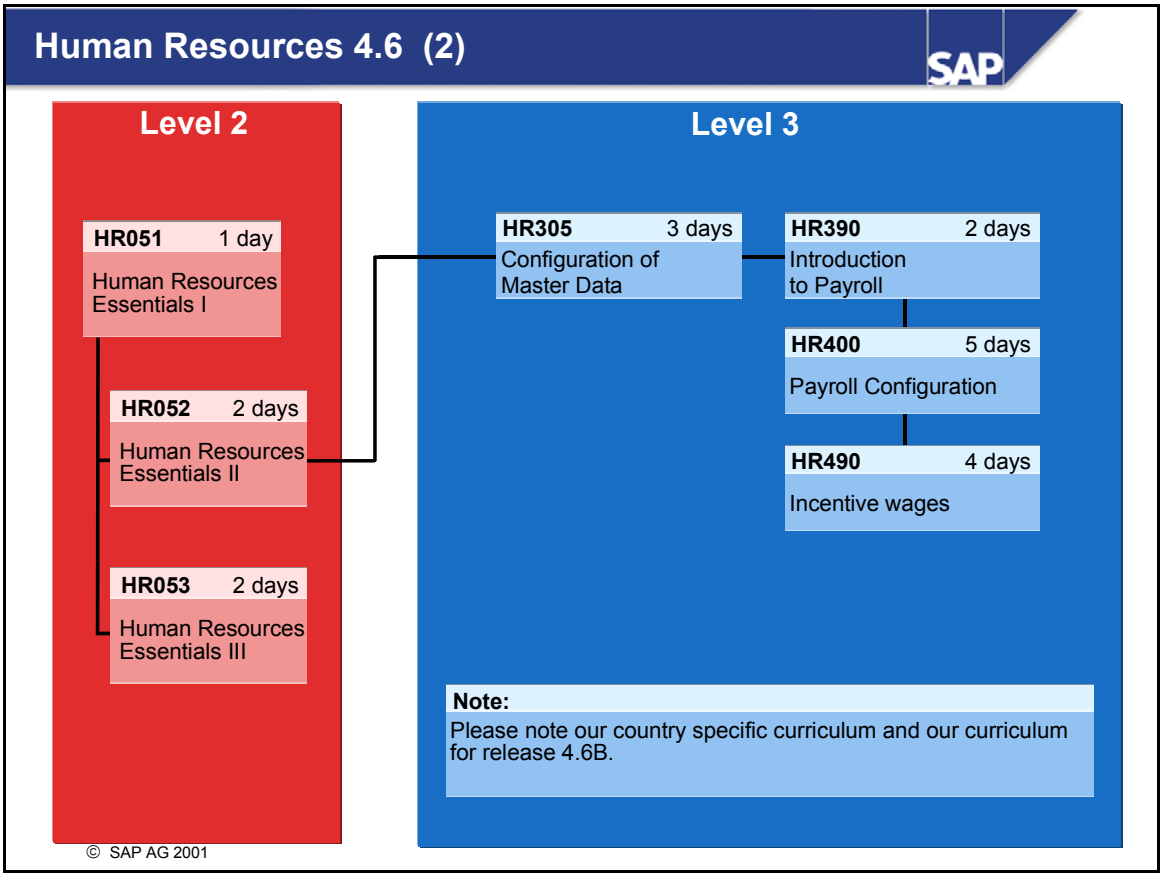
Trademarks:

- 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.

Internal Use SAP Partner Only



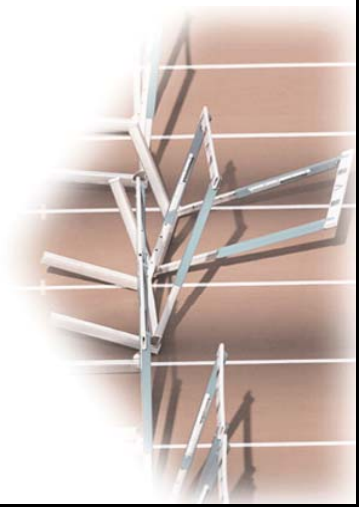
Internal Use SAP Partner Only



Internal Use SAP Partner Only

Course Prerequisites

- **HR305** ***(Configuration of Master Data)***
- **HR306** ***(Configuration of Time Recording)***
- **HR307** ***(Configuration of HR System Controls)***
- **HR400** ***(Payroll Configuration)***
- **HR7XX** ***(Country-Specific Payroll)***



Internal Use SAP Partner Only

Target Group

- **Participants:**
  - **Project Team Members**
  - **Business Analysts**
  - **Consultants**
- **Duration:**
  - **3 days**

Notes to the user

- The training materials are **not teach-yourself programs.** They complement the course instructor's explanations. On the sheets, there is space for you to write down additional information.

Internal Use SAP Partner Only

Course Overview

Contents:

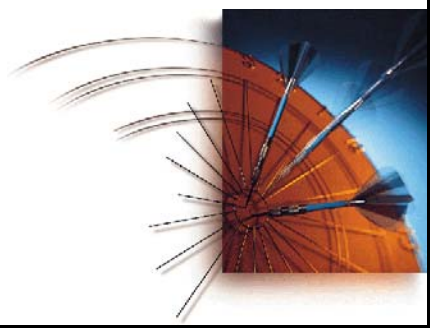
- Course Goals
- Course Objectives
- Course Content
- Overview Diagram
- Main Business Scenario

Internal Use SAP Partner Only

Course Goals

This course will prepare you to:

- **Understand the processes involved in *Incentive Wages***
- **Understand how *Incentive Wages* is integrated into the business processes of *SAP Human Resources***
- **Know what integration options are available for *Incentive Wages***



Course Objectives

At the conclusion of this course, you will be able to:

- **Understand the processes involved in *Incentive Wages***
- **Make Customizing settings for *Incentive Wages***
- **Understand how *Incentive Wages* can be integrated with Logistics and Controlling**
- **Run Payroll for employees in *Incentive Wages***

Course Content

Preface

Unit 1	**Course Overview**	Unit 6	**Plant Data Collection Customizing**
Unit 2	**The Ideas Behind *Incentive Wages***	Unit 7	**Evaluations Before Running Payroll**
Unit 3	**Processes in *Incentive Wages***	Unit 8	**Running Payroll**
Unit 4	**Customizing**	Unit 9	**Evaluations After Running Payroll**
Unit 5	**Plant Data Collection Processes**		

Exercises

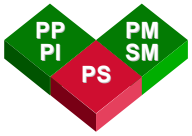
Solutions

Internal Use SAP Partner Only

Internal Use SAP Partner Only

Overview Diagram

Time Recording

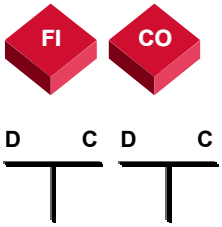


Online Data Entry

Incentive Wages

- Entering/Maintaining Time Tickets
- Time Management Pool
- Time Leveling

Payroll



Subsystem

Automatic

- Upload

Confirmations

- Standard values
- Target times

Time Tickets

- Determination of labor utilization rate
- Cumulations

Payroll

- Piecework wages
- Premium wages
- Time wages
- Previous months' averages

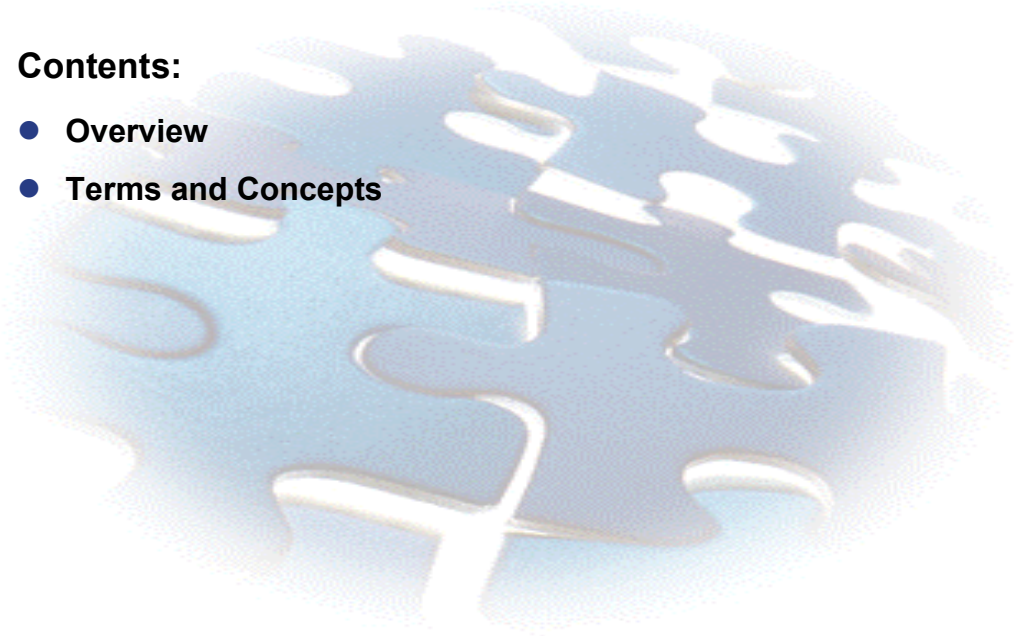
Update

- Expenses/ payables
- Credit/debit cost center

Main Business Scenario

- Your company uses the R/3 Production Planning component (PP).
  Employees who work in production perform tasks that are remunerated with premium wages.
  You are a member of the implementation team.
- Your job is to configure the *Incentive Wages* component to suit the requirements of your company.
- In particular, you must ensure that *Incentive Wages* is integrated with PP.
- You also have to modify the personnel calculation rules in Payroll.

The Ideas Behind *Incentive Wages*



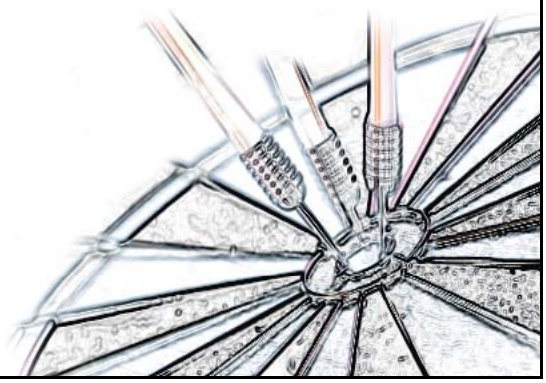
Contents:

- **Overview**
- **Terms and Concepts**

Ideas Behind *Incentive Wages*: Unit Objectives

At the conclusion of this unit, you will be able to:

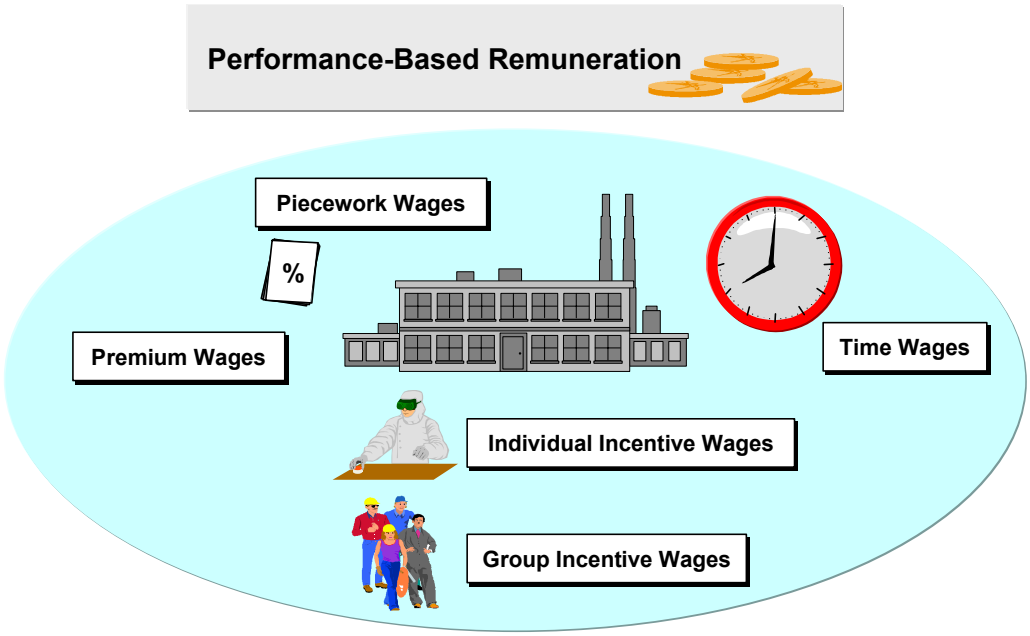
- **Explain how *Incentive Wages* fits into the R/3 System**
- **Outline the basic elements, terms and concepts used in *Incentive Wages***



Internal Use SAP Partner Only

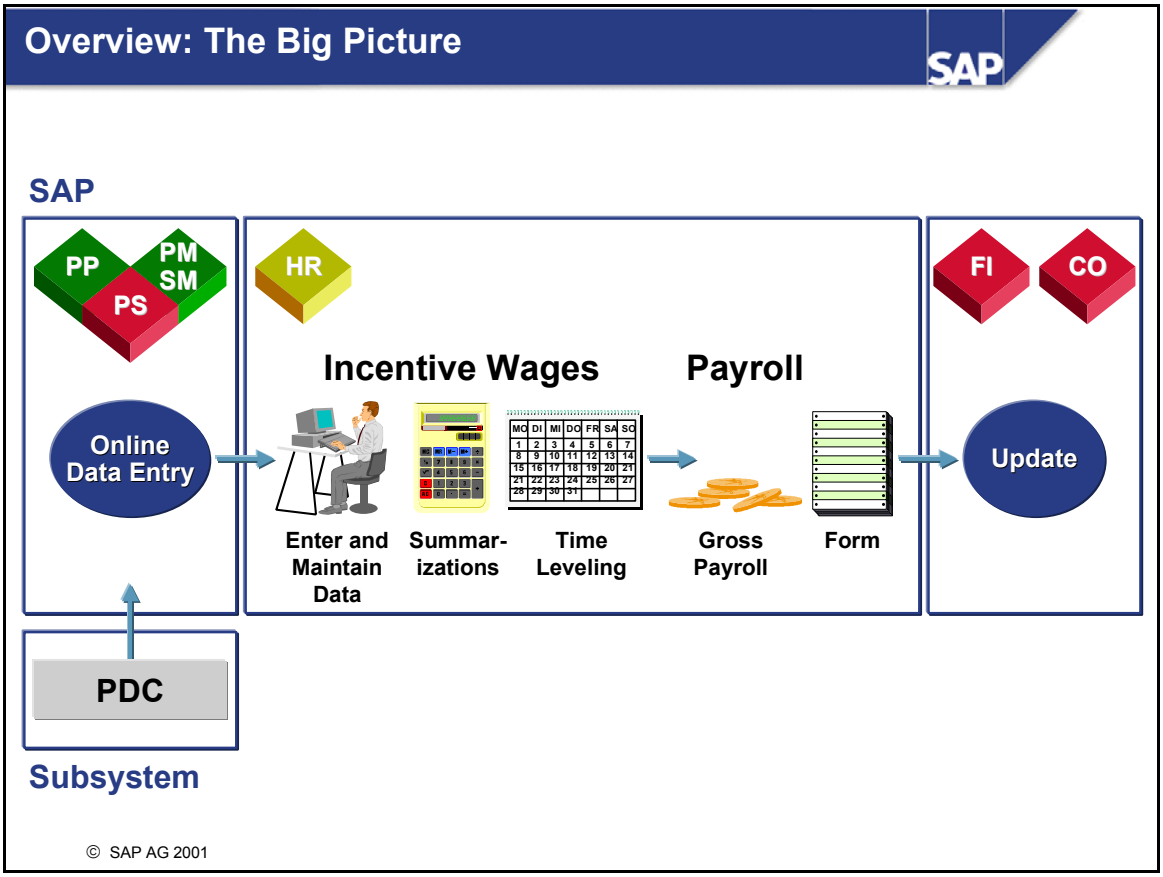
Internal Use SAP Partner Only

Overview: Introduction



- R/3 **Incentive Wages** allows you to enter, maintain, and evaluate data pertaining to the performance-based remuneration of your employees.
- "Incentive Wages" is a generic term used for the following remuneration categories:
  - In the case of time wages, remuneration is calculated on the basis of the actual time expended. The amount of work completed during that time is not taken into account.
  - Piecework wages are used to create an incentive for the employee. Employees can influence the total amount of their remuneration, which depends solely on the number of items produced.
  - In the case of premium wages, employees influence the total amount of their remuneration by achieving quality- or meeting quantity-based specifications. Premium wages consist of a fixed basic pay and an additional performance-based premium.
- Generally speaking, you will find that several of the above categories will be in use at the same time in companies - after all, every company has different requirements. Any combination of remuneration categories can be set up in the Incentive Wages component.
- SAP Incentive Wages supports individual incentive wages as well as group incentive wages, both of which can be deployed simultaneously.

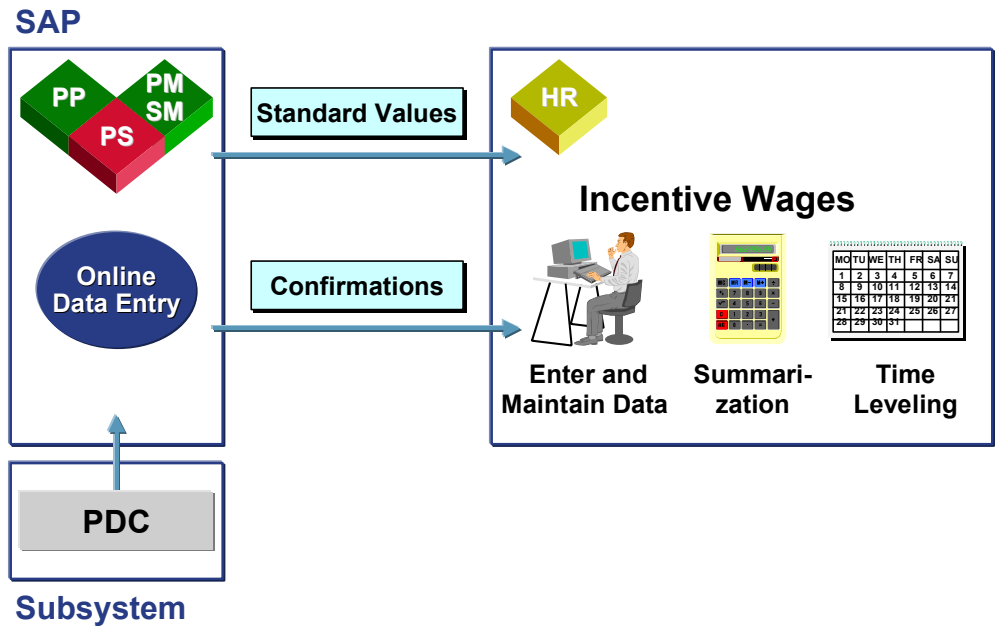
Internal Use SAP Partner Only



- Data used in Incentive Wages is recorded in time tickets.
- Standard values and actual values (confirmed values) entered in Logistics can be transferred to Human Resources (HR).
- Confirmed values are either entered individually by each employee at a subsystem and then uploaded to Incentive Wages, or they are entered manually in Logistics. Confirmations are transferred either as work time events or as durations to the Incentive Wages component.
- Even before the actual payroll accounting process begins, summarized values (actual times, target times, and labor utilization rates) can be used in evaluations and for time leveling.
- The Incentive Wages component is an integrated element of HR Payroll. The time tickets entered are valuated in the gross part of Payroll.
- Employees' time tickets affect their gross pay; gross pay is debited from either the master cost center or - if specified on the time ticket - an alternative cost center. The costs are then posted to this cost center.
- The terms "summarization," "cumulation," and "summation" all have the same meaning in the Incentive Wages component.

Internal Use SAP Partner Only

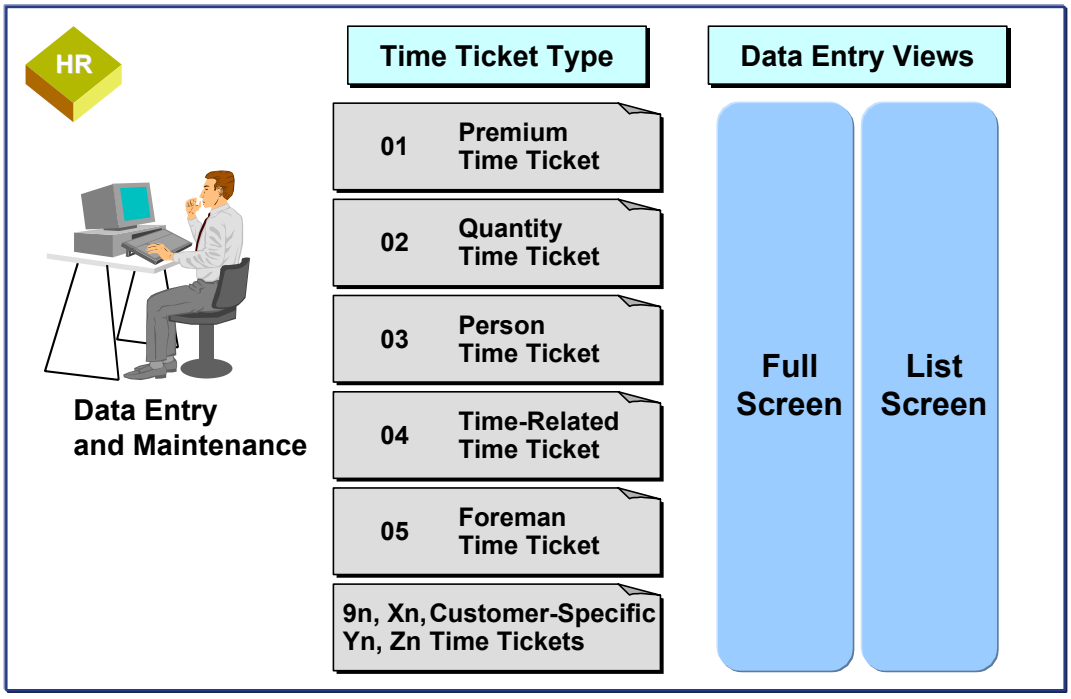
Overview: Integration with *Logistics*



- Confirmations are either entered online in the *Production Planning* (PP), *Plant Maintenance/Service Management* (PM/SM), and *Project Systems* (PS) components, or by using Plant Data Collection (PDC). An interface enables this data to be transferred to the *Incentive Wages* component. This means that the same data does not have to be entered again in HR.
- However, time tickets can also be recorded directly in *Incentive Wages*. In this case, standard values can simply be transferred from the *Logistics* component.

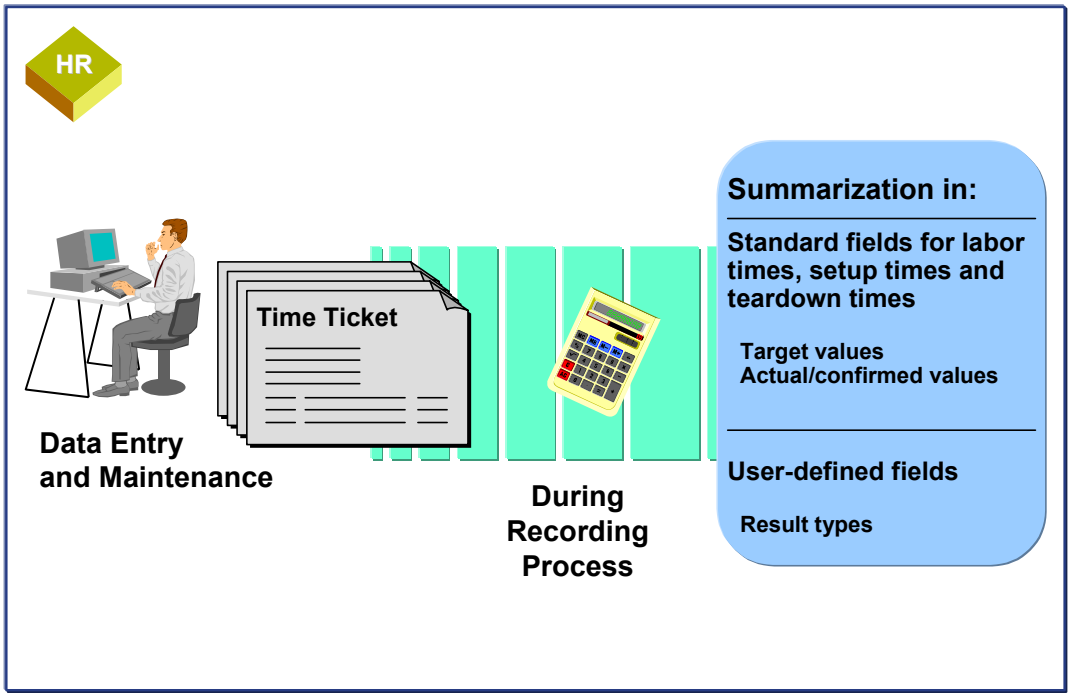
Internal Use SAP Partner Only

Overview: The *Incentive Wages* Component



- You enter Incentive Wages data as time tickets (and not, say, as attendances).
- Incentive Wages has its own transactions for creating, maintaining, and displaying time tickets.
- The time ticket types used in the standard system comply with business management standards.
  - Premium and time-related time ticket types are used for individual incentive wages.
  - Quantity, person, and foreman time ticket types are used for group incentive wages
- You should use names that begin with 9, X, Y or Z for customer-specific time ticket types.
- In full-screen mode, you can view the entire time ticket. List screens, on the other hand, are used for "fast entry" of data (for several persons or groups), and only show some of the fields from the corresponding full screens.

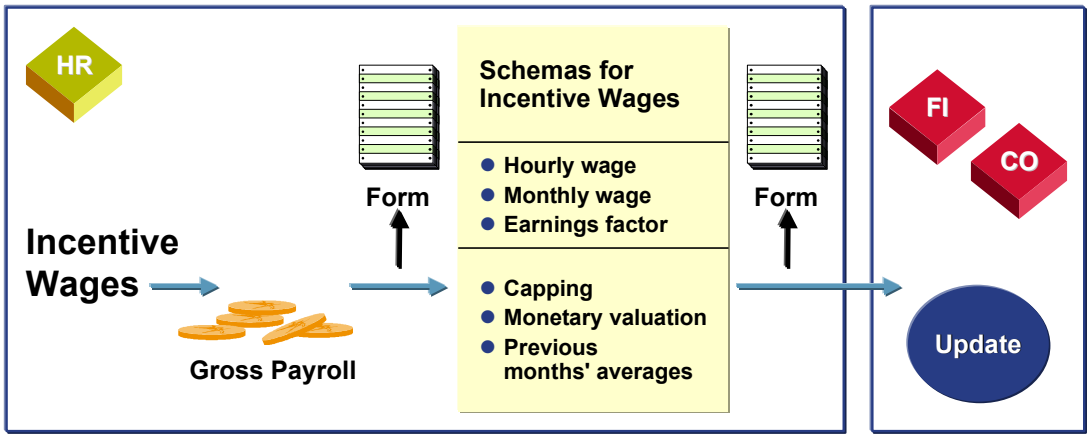
Overview: Summarization in *Incentive Wages*



- Some data is summarized as soon as it is entered (this is determined by *Customizing* settings). Values (actual time and target time, for example) are cumulated on a daily and periodic basis. This means that, even before the payroll process begins, this data is available for evaluations and time leveling - and also that you can check the data you have entered. Data can be summarized separately for each employee and for each group.
- Time ticket values can be cumulated in standard fields, as well as in so-called "result types," which can be defined in *Customizing*.

Internal Use SAP Partner Only

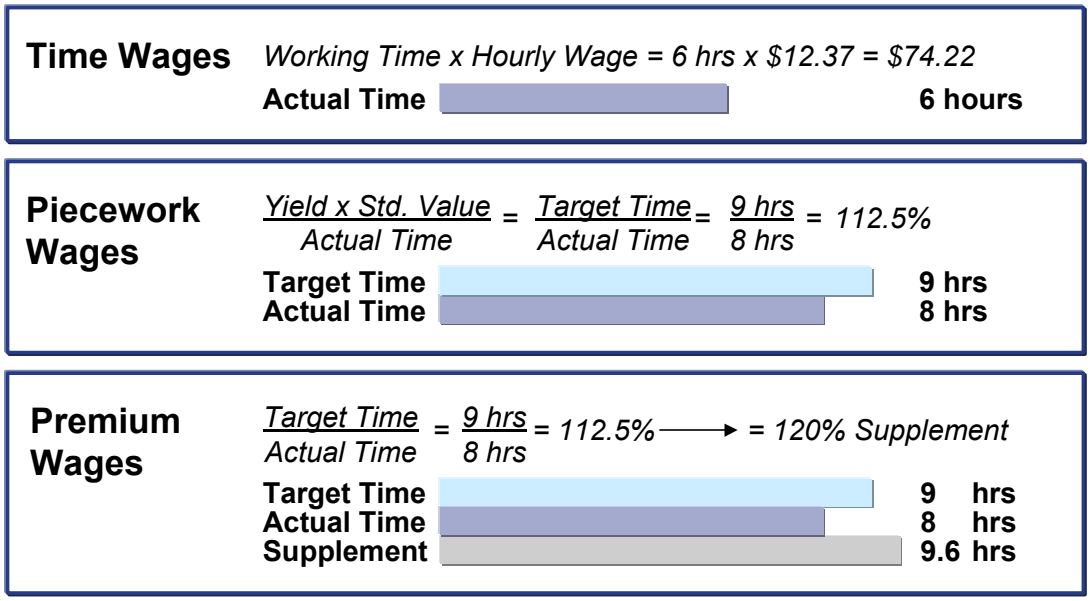
Overview: *Payroll*



- Employee time tickets are read and valuated in Payroll. Valuated time tickets are stored as "subsequent time tickets."
- In the standard system, three examples of payroll accounting scenarios have already been mapped in personnel calculation schemas. All three examples involve premium wages. A premium wage comprises a fixed basic monthly salary and a variable portion. The employee receives his or her basic monthly salary even if he or she does not submit a time ticket.
  - In the examples involving hourly and monthly wages, the variable time- and performance-dependent elements resulting from the time tickets of the current month are added to the basic monthly wage.
  - In the example involving an earnings factor, the basic monthly wage is valuated using the average earnings factor of the two previous months.
- Forms are available for original time tickets (that is, the time tickets that were entered), and for subsequent time tickets.
- Employees' time tickets affect their gross pay; gross pay is debited from either the employee's master cost center or an alternative cost center.

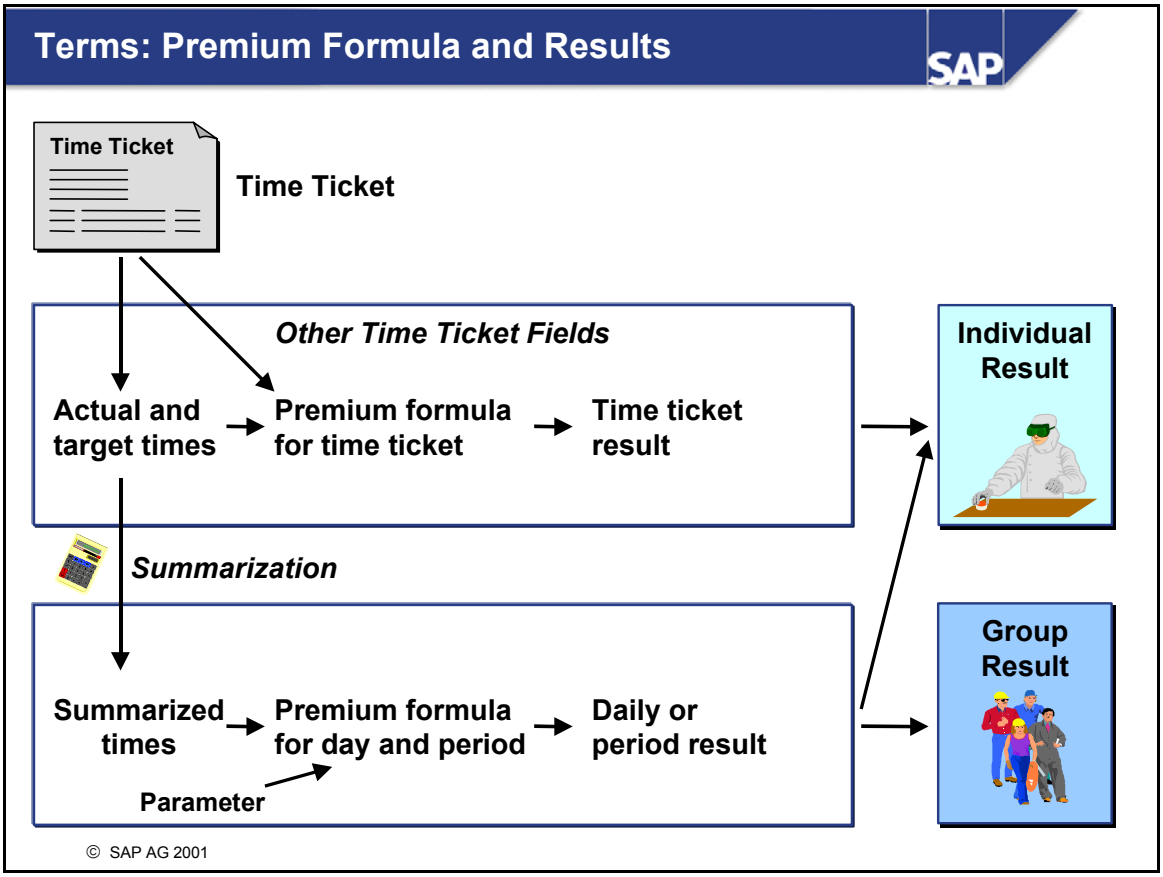
Internal Use SAP Partner Only

Terms: Incentive Wages



- **Time Wages:** In the case of time wages, the time worked by the employee is used as the basis for calculating remuneration. The time required for an employee to complete a certain activity (the *actual time*) is valuated using the appropriate hourly wage or an average from previous months.
- **Piecework and Premium Wages:** In the case of piecework and premium wages, on the other hand, the quantity produced or processed is also taken into account. Based on the standard value and the quantity, the average time required by the employee for this quantity is calculated. This time is referred to as the target time. The relationship between the target time and the actual time is called the **labor utilization rate**.
  - **Piecework Wages:** Remuneration depends entirely upon the individual performance of the employee. If, for example, an employee only achieves a labor utilization rate of 50%, he or she is paid only for that 50%.
  - **Premium Wages:** Premium wage is divided into two parts. A bonus (premium) is added to a fixed basic wage. The basic wage is always paid. The amount of the premium, however, depends on whether certain quality- or quantity-based performance specifications were achieved.

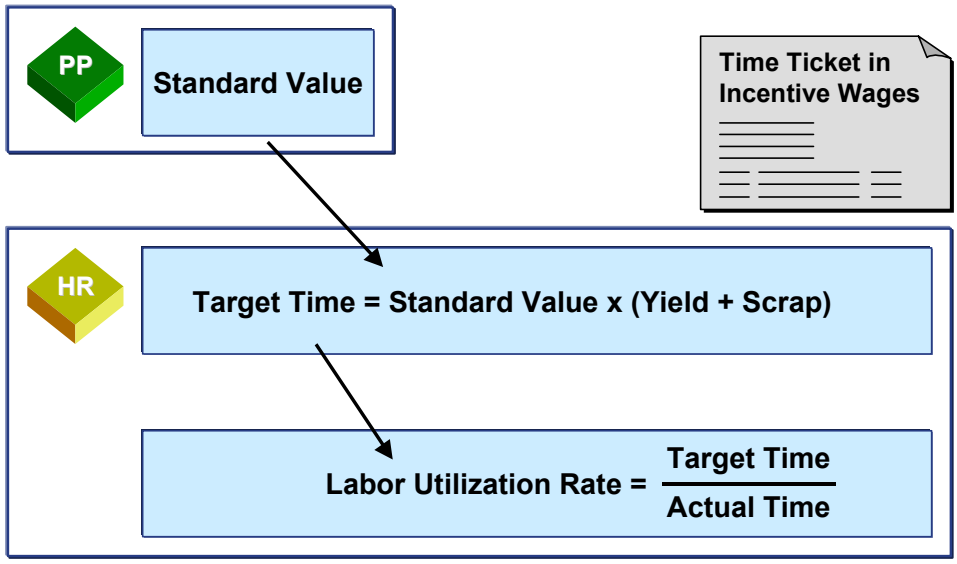
    In the above example, a labor utilization rate of at least 110% is to be supplemented to 120%. Therefore, with an actual working time of eight hours, the employee receives a supplement of 0.6 hours, in addition to payment representing a target time of nine hours. In total, the employee receives wages for 9.6 hours of work.



- Generally speaking, the "result" is a labor utilization rate (percentage) or a premium (absolute monetary amount).
- The result of an individual time ticket is calculated from the target and actual values and occasionally from additional fields on the time ticket.
- The day or period result is calculated from the summarized values and any additional parameters. Individual time ticket fields are not used here.
- Group Incentive Wages focuses on result of the group. The day and period results are also the group results.
- A premium formula comprises a calculation rule and additional attributes (such as threshold values for warnings and error messages).

Internal Use SAP Partner Only

Terms: Standard Values, Target Times, and Labor Utilization Rate

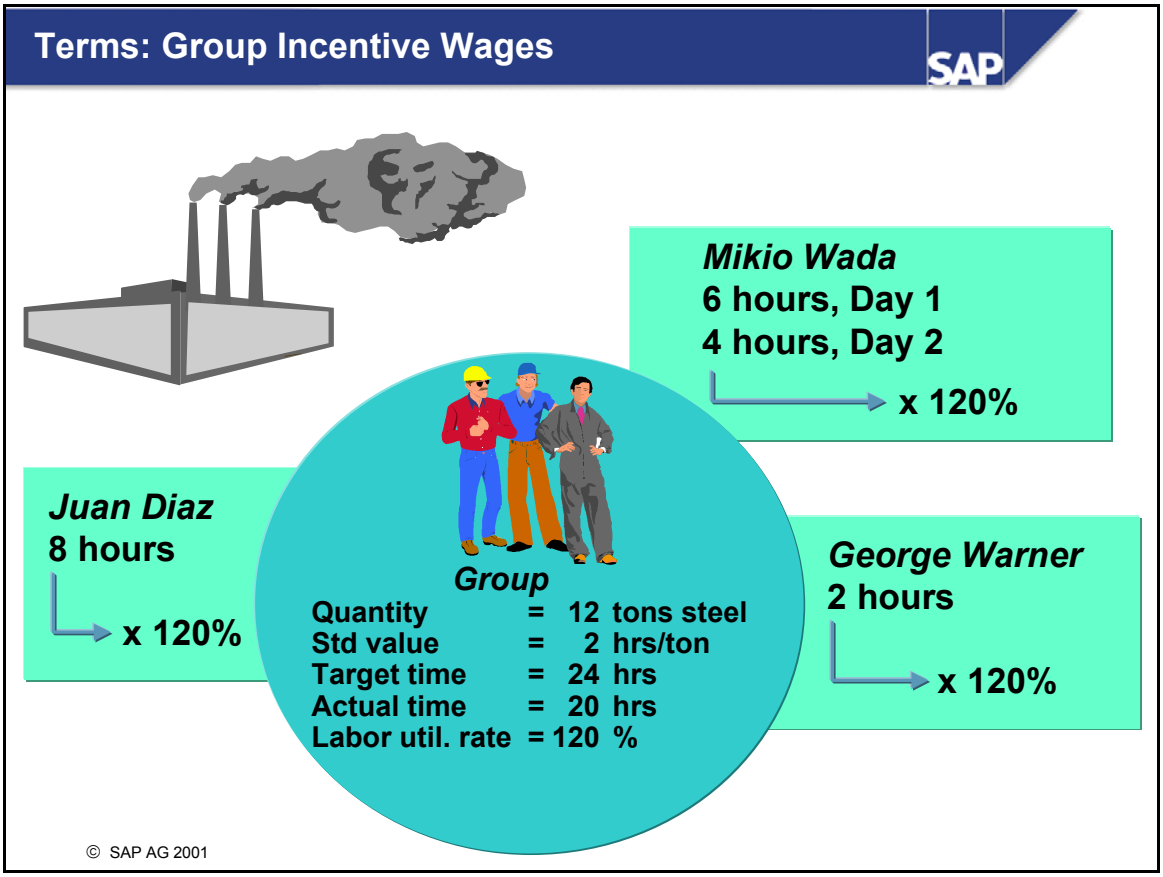


- Target times can be calculated from standard values and quantities. This does not form part of the premium formula, however, but is carried out directly in the time ticket.
- If you have integrated Logistics in your enterprise, standard values (times) and target times are transferred from this component to Incentive Wages.

Terms: Individual and Group Incentive Wages

- **Individual Incentive Wages**
  - Data exclusive to individual employee
  - Data for other employees does not affect individual employee's pay
  - Working time valuated individually
- **Group Incentive Wages**
  - Group result determines individual valuation
  - Group members' target time credited to the group anonymously
  - Actual times for group are cumulated, but assigned to group members individually
  - Working time valuated individually

- In Individual Incentive Wages, an individual employee's remuneration is based solely on the data that is explicitly recorded for that employee; other employees' data does not influence his or her pay.
- In Group Incentive Wages, remuneration is based not only on the employee's own data, but also on the data of the other colleagues in the employee's group. A "group" is a number of employees who work in the same team or pool. Payment for the group's performance depends on the overall result of the group. The target time worked by the group members is credited anonymously to the group as a whole. The actual times of the group members are summarized for the group result, but remain assigned to the group members (so that the individual working time of each group member can be valuated).



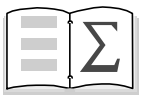
- Juan Diaz, Mikio Wada, and George Warner are all employees who belong to the same group. This group's job is to fire up a blast furnace. On average, it takes 2 hours to produce a ton of steel (although it should be noted that this time includes a range of activities).

  Mr. Diaz works 8 hours for the group, Mr. Wada works 6 hours on the first day and 4 hours on the second, and Mr. Warner works 2 hours for the group.

  In total, the group produces 12 tons of steel. The target time of the group is 24 hours, but the cumulated actual time is 20 hours. This means that the group's labor utilization rate is 120%.

  Following on from this, each individual employee's working time is valuated using this figure of 120%.

Ideas Behind *Incentive Wages*: Unit Summary



- **Basic elements of the *Incentive Wages* component are time tickets, summarization and results (labor utilization rate, premium), time-based, piecework and premium wages, and individual and group incentive wages.**
- **The most important interfaces are those to Logistics (PP - Production Planning and Control, PM - Plant Maintenance, PS - Project System), to the subsystem (PDC - Plant Data Collection) and to the Payroll component in HR (Human Resources).**

Processes in Incentive Wages

Contents:

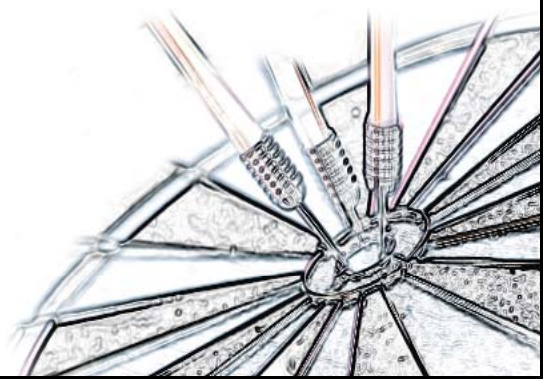
- Concepts
  - Full screen
  - List screen
  - Cumulations
  - Result types
  - Parameters
- Examples
  - Individual Incentive Wages
  - Group Incentive Wages

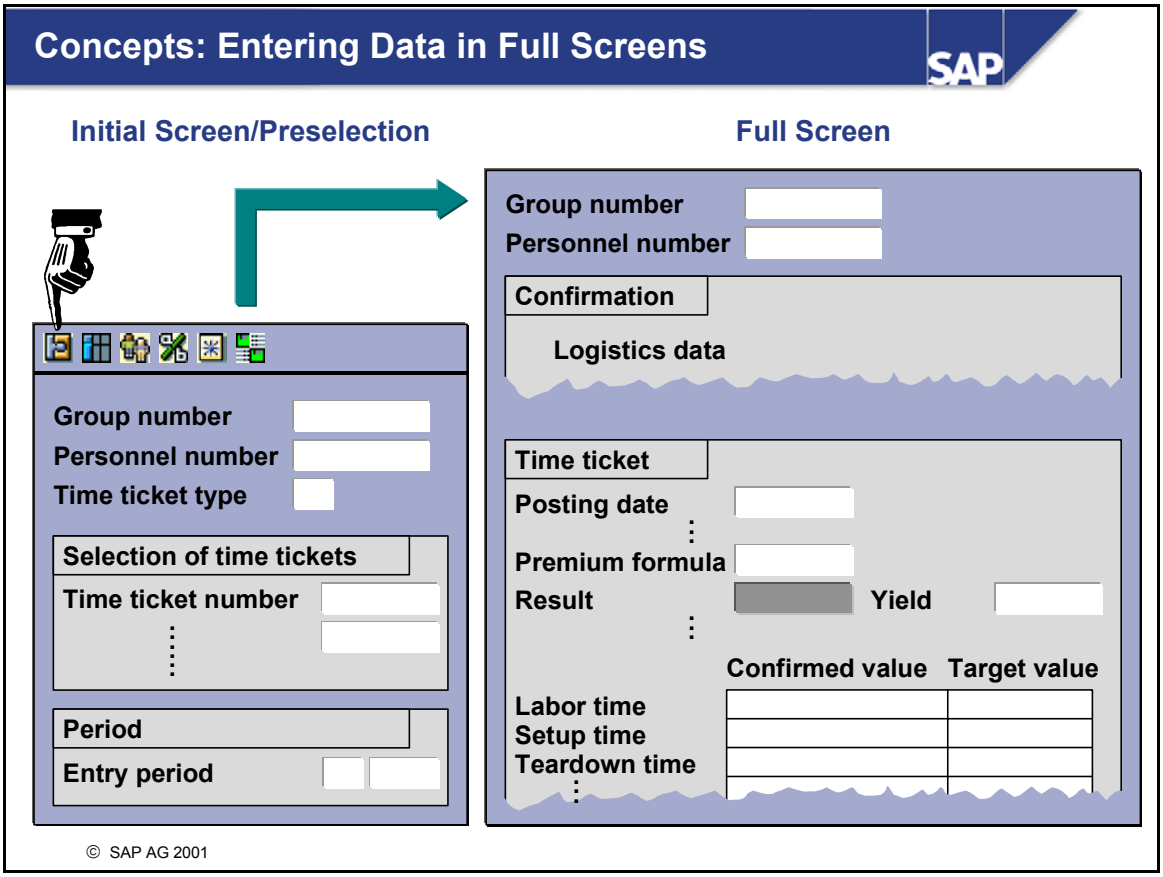
Internal Use SAP Partner Only

Processes: Unit Objectives

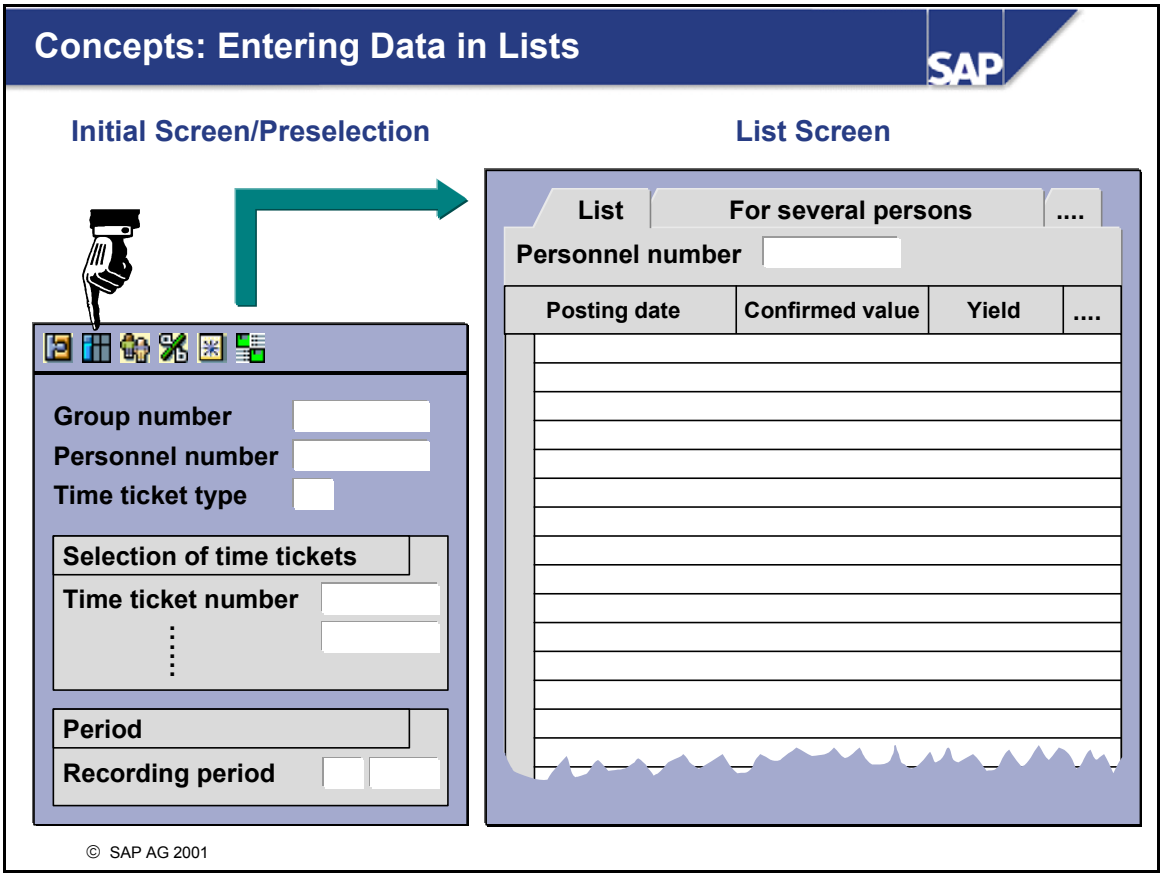
At the conclusion of this unit, you will be able to:

- **Understand the processes involved in HR Incentive Wages**





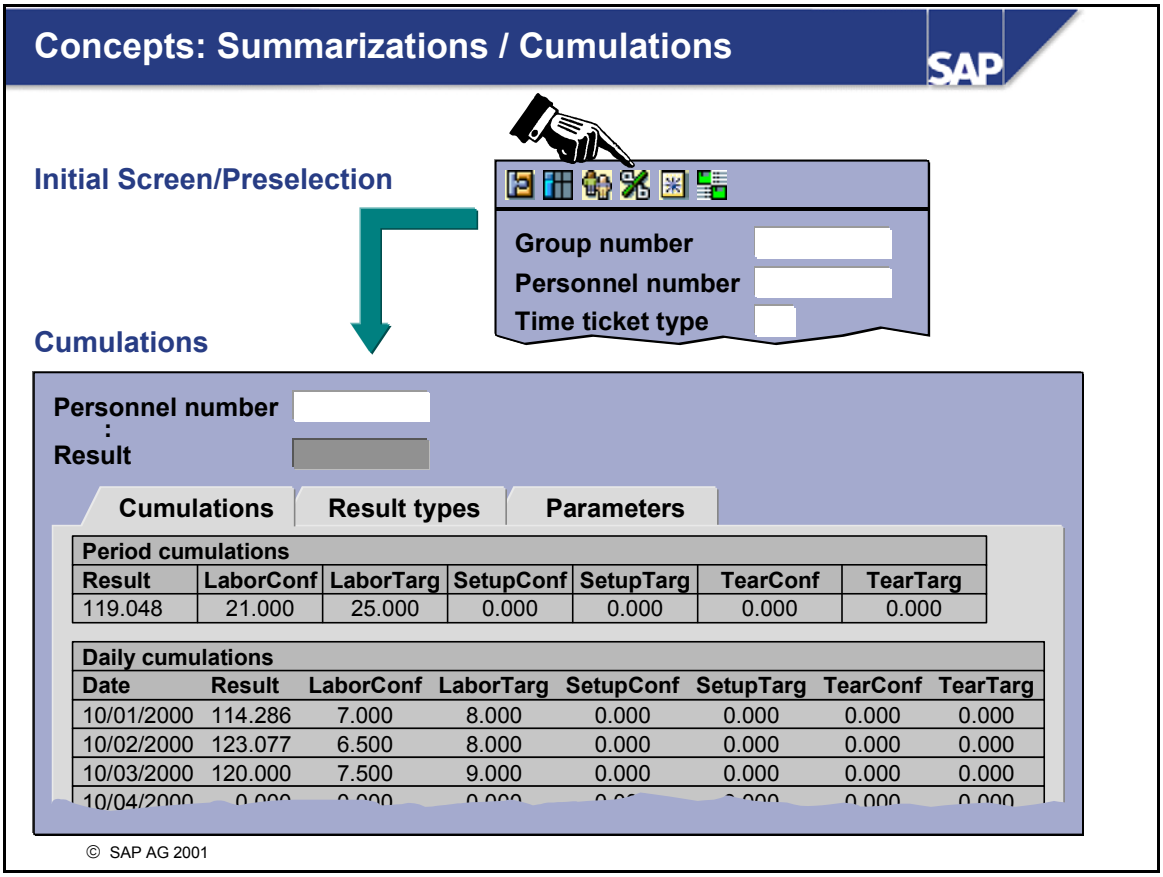
- In the initial screen, you specify the period and the time ticket type.
- A full screen displays the contents of one time ticket. All of the fields for this time ticket appear on the screen.
- When you click *Full screen*, a window with an empty time ticket appears. This is where you enter your data. Once you have finished doing this, you press ENTER. The system then calculates and displays the time ticket result.
- When you click *Full* screen again, a new blank time ticket appears. When you have entered all of your time tickets, you click *Save*. Once you have clicked *Save*, the initial screen appears again.
- If you wish to, you can scroll between the time tickets you have entered before you click *Save*.
- You can change the *time ticket type,* as well as the *personnel* and *group number* when you are entering data. This means that you can enter all types of time ticket in full screen mode.



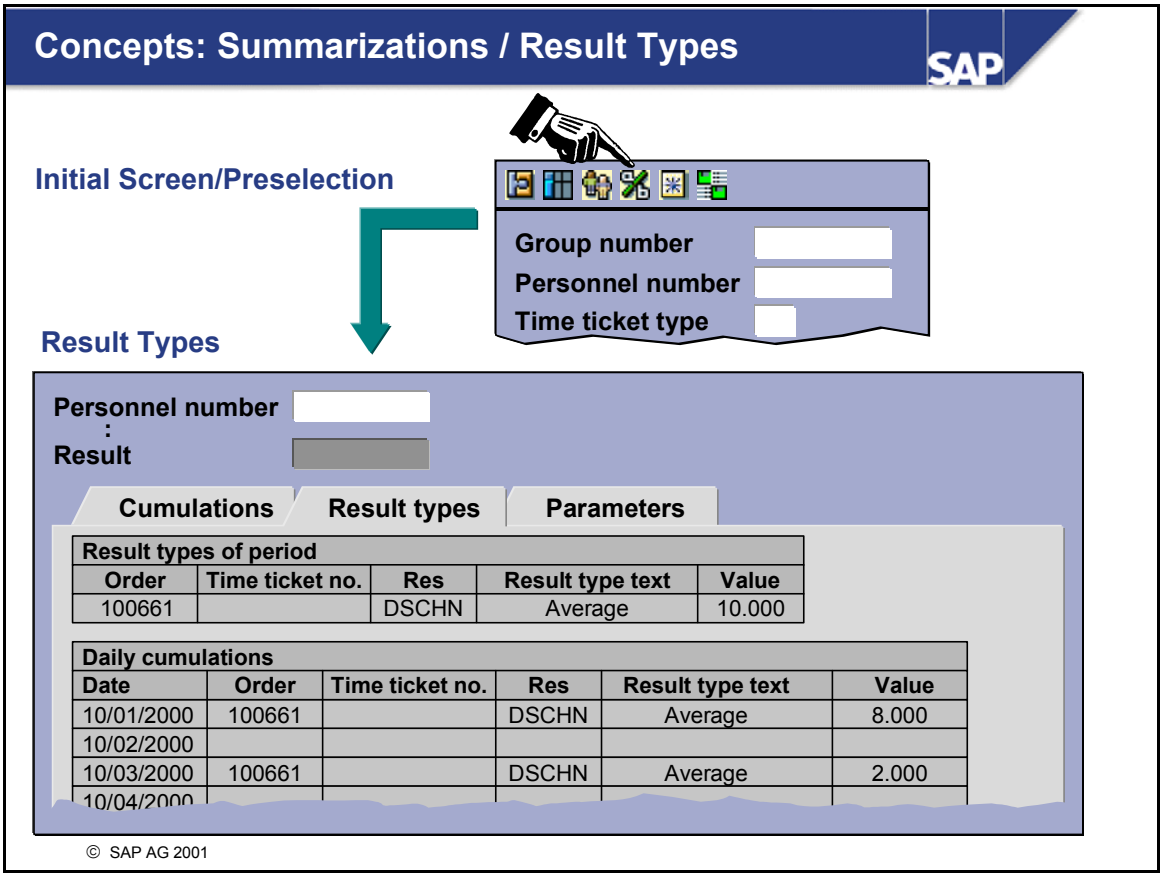
- In the initial screen, you specify the period and the time ticket type.
- A list screen shows a list of time tickets but, in contrast to the corresponding full screen, not all of the time ticket fields appear on a list screen.
- When you choose *List Screen*, a list of blank time tickets is shown. This is where you enter your data.
- In order to add time ticket data in the full screen, you select a line and then click *Choose*. When you press *Enter*, you return to the list screen.
- When you press ENTER here, the system calculates and displays the time ticket result.
- When you click *Save* in the list screen, the initial screen appears again.
- Each time ticket type has its own special additional list screens where you can enter data for several persons or groups.

Concepts: Types of List Screens

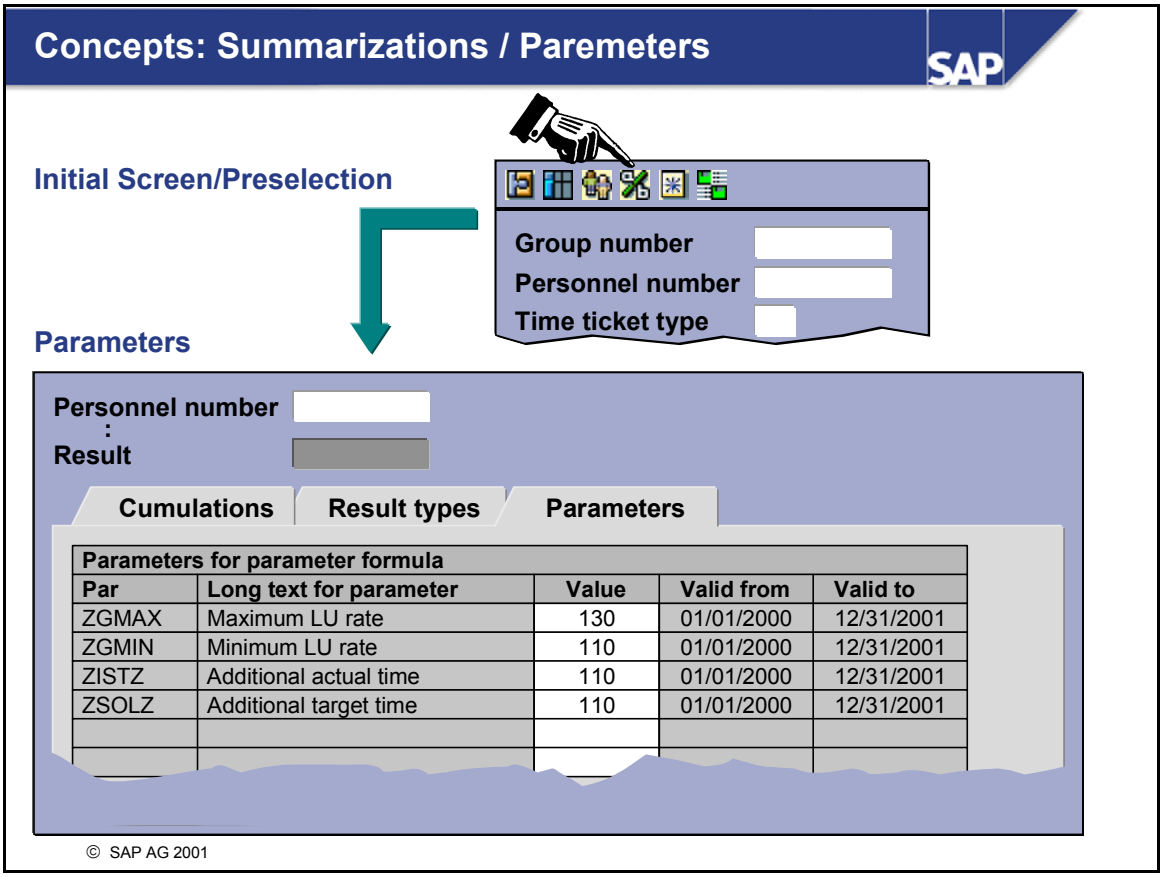
List Screen Types	Time Ticket Types
List Enter data for one personnel or group number	Premium Time Ticket Quantity Time Ticket Time-Related Time Ticket
List for Several Persons Enter data for several personnel numbers	Premium Time Ticket Person Time Ticket Foreman Time Ticket Time-Related Time Ticket
List for Several Groups Enter data for several group numbers	Quantity Time Ticket Person Time Ticket Foreman Time Ticket
List for All Enter data for several personnel or group numbers	Person Time Ticket Foreman Time Ticket



- You define the period in question on the initial screen. Here, you can also specify the personnel and group numbers for which you want to display summarized values.
- The *Cumulations* tab page shows summarized values from the time tickets entered. You can use these cumulated values as a basis for calculating premium results for the day and period (by applying premium formulas).
- You can also change the premium formula here. When you press *Enter*, the **cumulations** and the **result** are recalculated from the time tickets and displayed on the screen.
- The following values are summarized in the standard system:
  - Actual labor time Target labor time
  - Actual setup time Target setup time
  - Actual teardown time Target teardown time
- The summarized values form the basis of the premium formula for the day and the period.



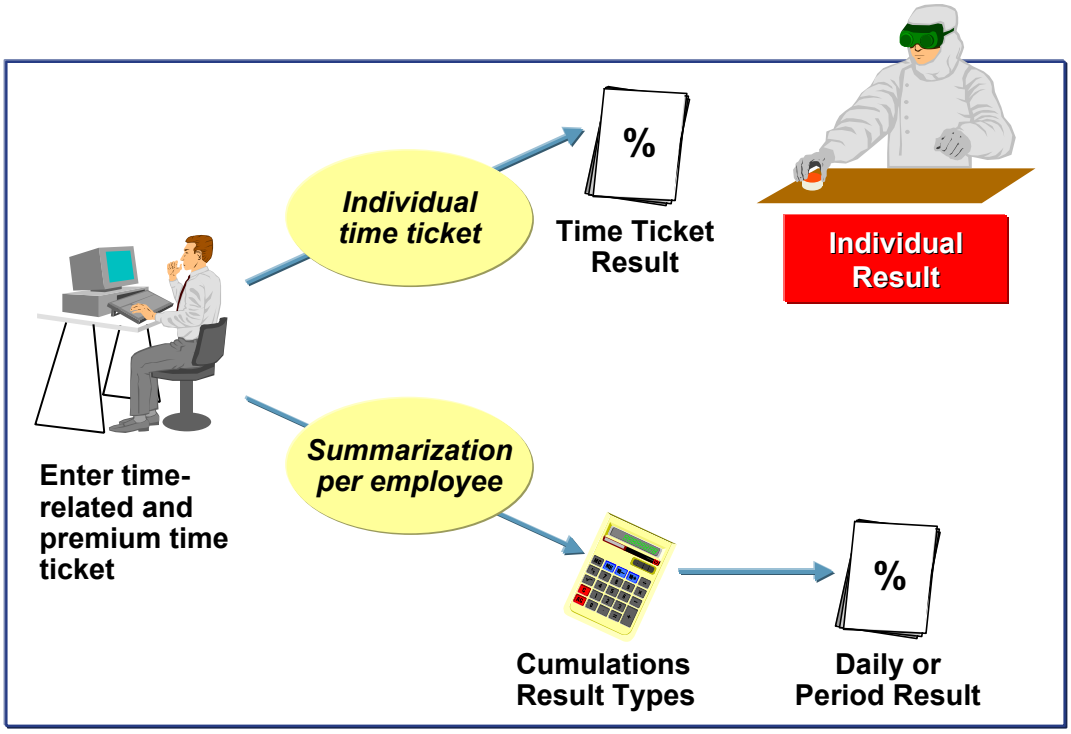
- The *Result types* tab page shows both standard cumulations plus any additional fields you defined for summarization.
- You can also change the premium formula here. When you press *Enter*, the **result types** and the ***result*** are recalculated from the time tickets and then displayed on the screen.
- You can also break down the result types by **receiver cost center**, **order number**, **and time ticket number**.
- Values summarized in the **result types** form an additional basis for the premium formula for the day and the period.



- The *Parameters* tab page displays the parameters defined for each premium formula. The following parameters are available in the standard system:
  - ZGMAX (maximum labor utilization rate)
  - ZGMIN (minimum labor utilization rate)
  - ZISTZ (additional actual time)
  - ZSOLZ (additional target time)
- Default parameter values can be defined and (depending on the Customizing settings) these default values may be overwritten here.
- You can also change the premium formula here. When you press *Enter*, the parameters pertaining to the new premium formula are displayed. The result is recalculated.
- The parameters from yet another basis for the premium formula for the day and the period.

Internal Use SAP Partner Only

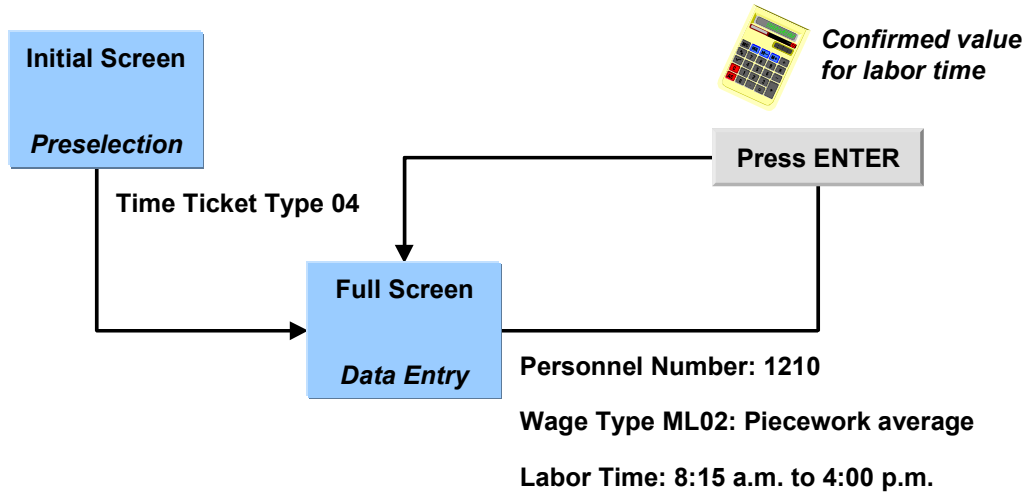
Example: Individual Incentive Wages (1)



- In the standard system, *time-related time tickets* and *premium time tickets* can be used for individual incentive wages.
- During the time ticket recording process, the time ticket result is displayed after you press *Enter*.
- *Cumulations* and *result types* are used to summarize the time ticket values for each employee on a daily or periodic basis. The day and period results are calculated from the cumulated values by applying the premium formula.
- Values are summarized as soon as the time ticket is entered.

Example: Individual Incentive Wages (2)

Entering a Time-Related Time Ticket

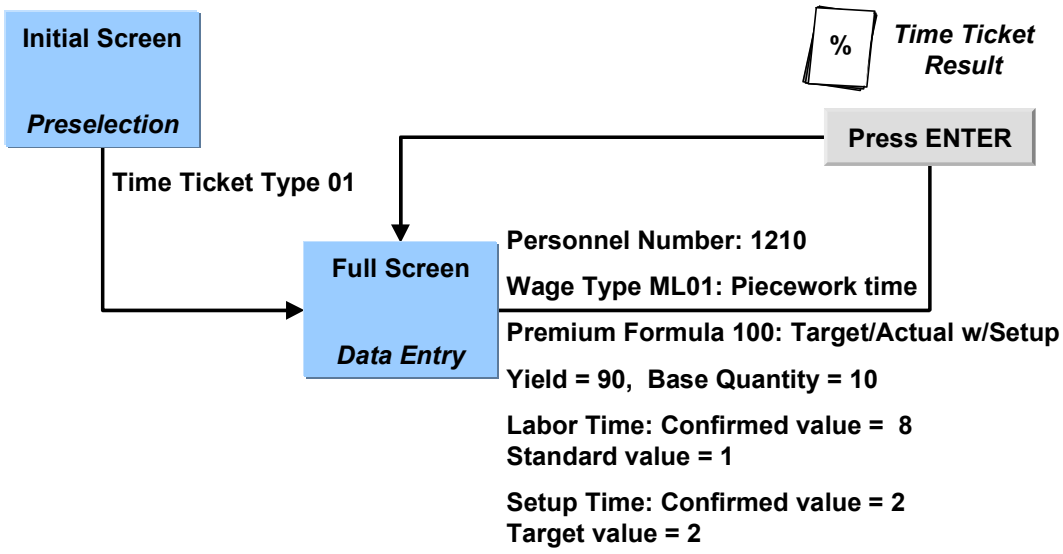


- The wage type determines how the time ticket is paid. Wage type ML02 indicates payment using an average. You cannot specify another wage type in time-related time tickets.
- When you click *Enter* or *Save*, the duration (that is, the actual time value in the time ticket) is calculated from the times entered. Unpaid breaks are deducted. Clock times are merely used to facilitate data entry.
- You can change the personnel number at any time in full-screen mode. This means that you can enter time tickets for several persons.

Internal Use SAP Partner Only

Example: Individual Incentive Wages (3)

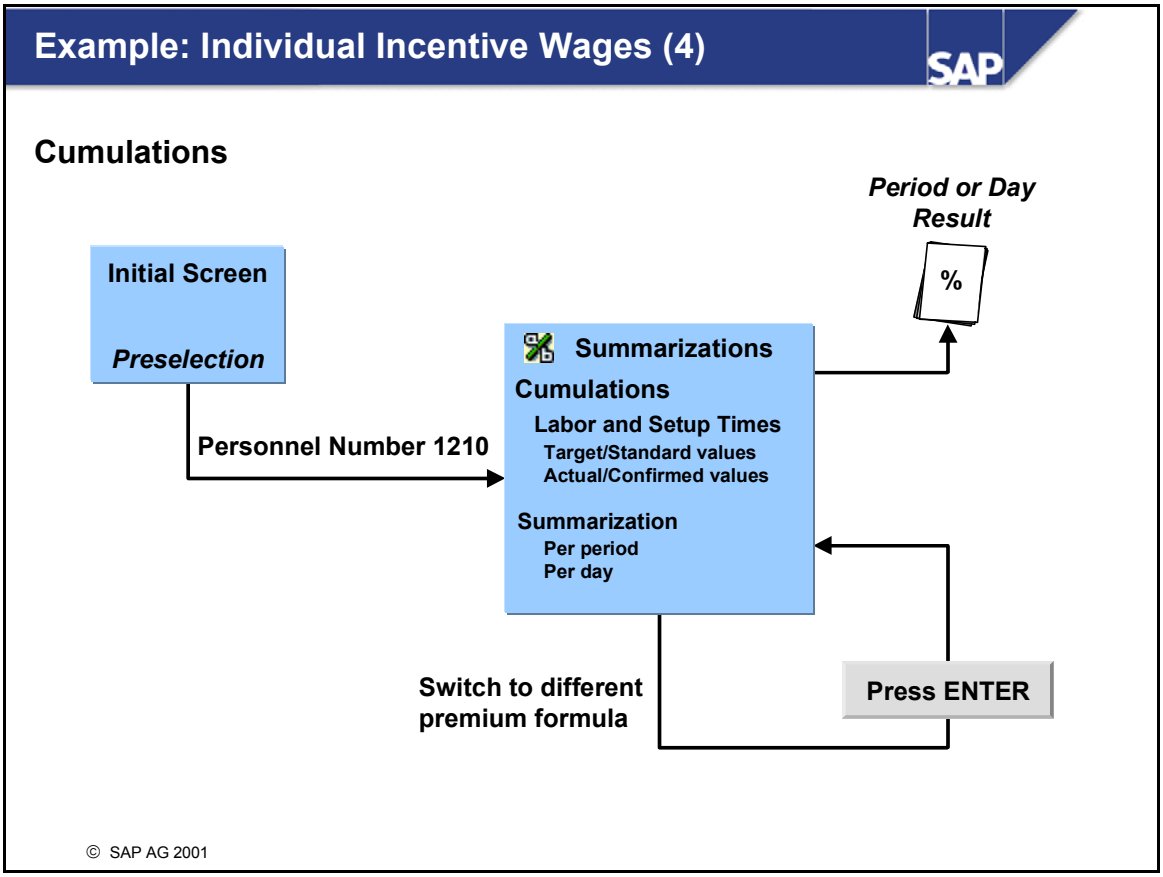
Entering a Premium Time Ticket



- You can enter standard values directly in the time ticket. This feature is particularly relevant if the *Incentive Wages* component is not integrated with *Logistics*.
- In this case, the target time is calculated as *Standard Value* x *(Yield + Scrap)/Base Quantity*.
- The premium formula 100 calculates the labor utilization rate by applying the calculation rule *(Target Labor Time + Target Setup Time)/(Actual Labor Time + Actual Setup Time)*. The target value of the setup times is not dependent on the quantity since it was entered without standard values.
- All values are converted into "hours" (H).

Internal Use SAP Partner Only

Example: Individual Incentive Wages (4)

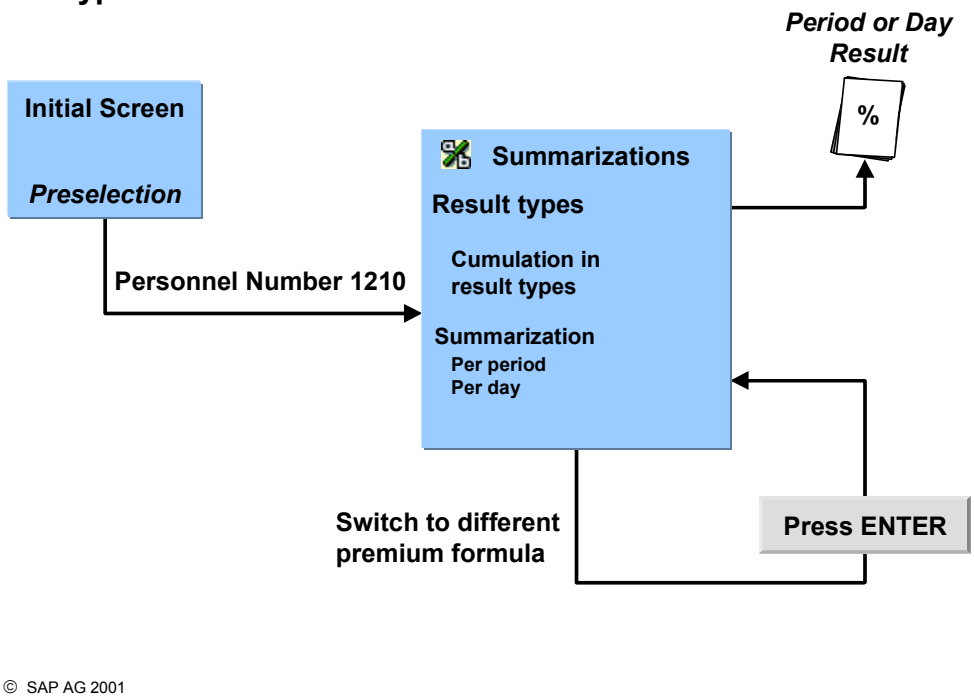


- The values in the *Results* column are always calculated using the employee's premium formula. If you change the premium formula and press *Enter*, the *results* are updated.

Internal Use SAP Partner Only

Individual Incentive Wages

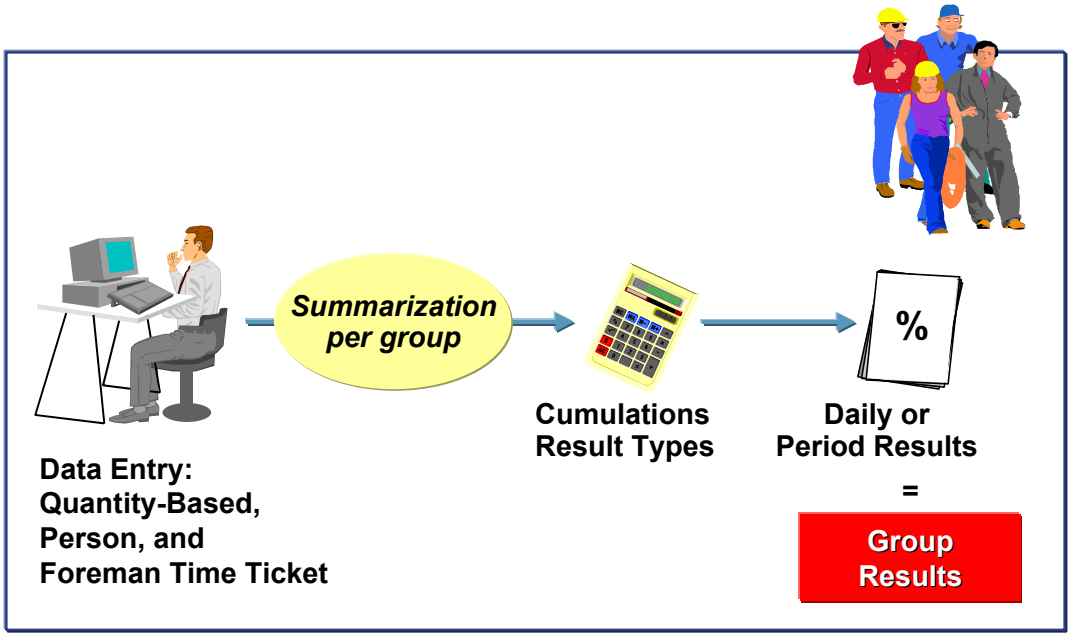
Result Types



- A list of *Result Types* is displayed in the results. The actual times from time-related time tickets are cumulated in the result type *Average*. They do not influence the standard fields for *cumulations* or the resulting piecework result.

Internal Use SAP Partner Only

Example: Group Incentive Wages (1)

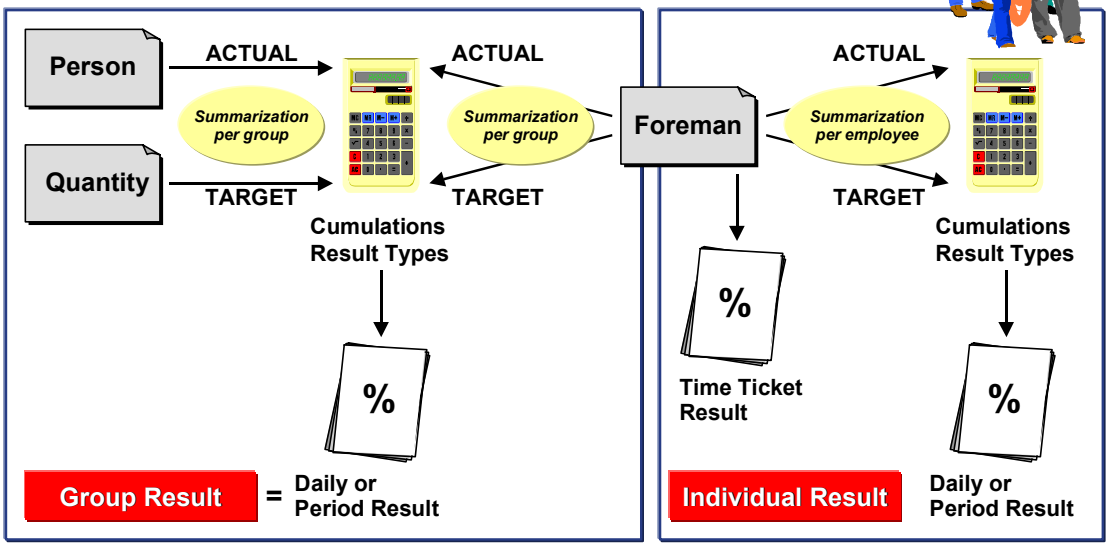


- In the standard system, *quantity time tickets*, *person time tickets*, and *foreman time tickets* can be used for group incentive wages.
- During the time ticket recording process, the group result is displayed when you press *Enter*. Consequently, *quantity* and *person time tickets* do not have their own specific results.
- You can use *cumulations* and *result types* to summarize the time ticket values for each employee on a daily or periodic basis. These day and period results are calculated from the cumulated values by applying the premium formula.
- Values are summarized as soon as the time ticket is entered.

Internal Use SAP Partner Only

Example: Group Incentive Wages (2)

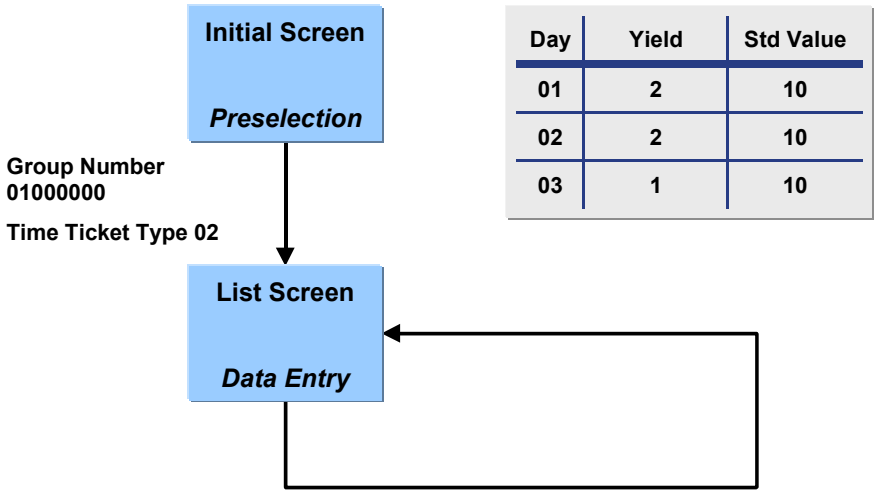
Interaction Between Time Tickets



- The actual values of *person time tickets* and the target values of *quantity time tickets* are summarized for the group. Each group member is valuated on the basis of the group result. The group result is a day or period result.
- A *foreman time ticket* influences the group result because its actual and target values are included in the group cumulations. However, the foreman time ticket has its own premium formula and, therefore, also has its own individual result - which is not affected by that of the group.
- Group time tickets (quantity and person time tickets) do not have their own results. Only the group result of the period in question appears in these time tickets.

Example: Group Incentive Wages (3)

Entering Quantity Time Tickets in a List

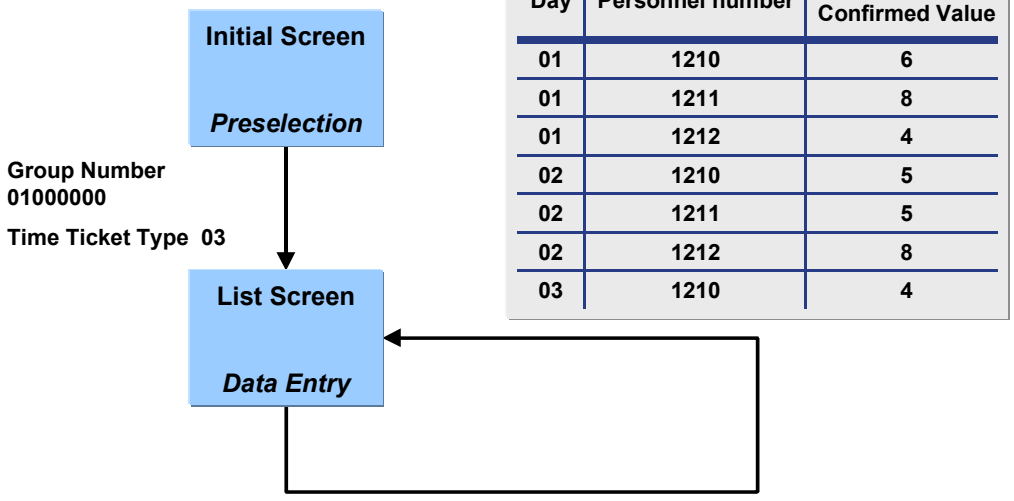


Day	Yield	Std Value
01	2	10
02	2	10
03	1	10

- In Group Incentive Wages, *quantity time tickets* can only be created for their respective group. Consequently, there is a special list screen for entering time tickets for a specific group, and another more general list screen for entering time tickets for different groups.

Example: Group Incentive Wages (4)

Entering Person Time Tickets in a List

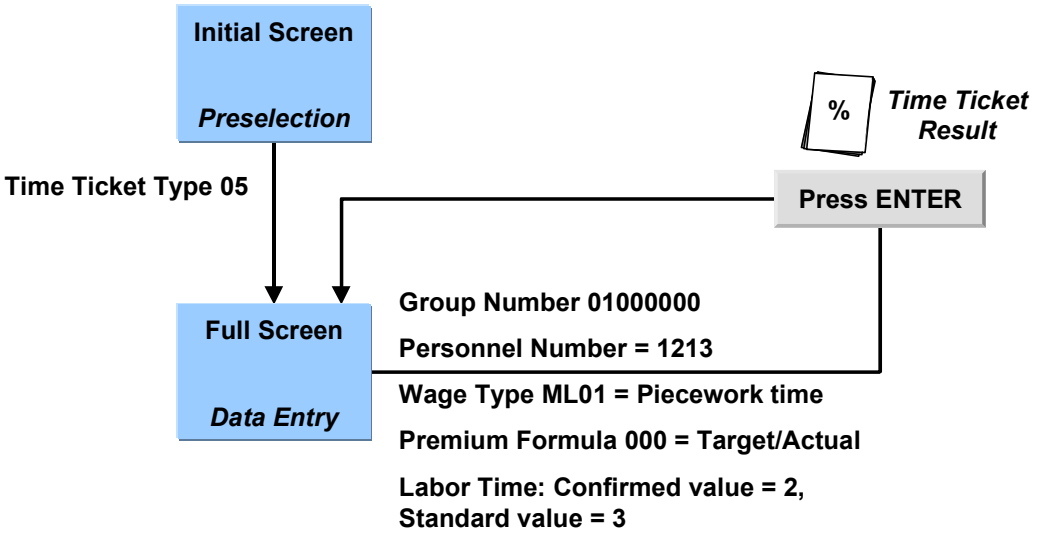


Day	Personnel number	Labor Time: Confirmed Value
01	1210	6
01	1211	8
01	1212	4
02	1210	5
02	1211	5
02	1212	8
03	1210	4

- If you use the *List for several persons* option, you can enter a time ticket that applies to each group member simply by entering an asterisk "'*" instead of the personnel number. When you press *Enter*, a time ticket with identical values is displayed for each group member. You can then modify these values as required.
  The system can, of course, only account for employees who have been assigned to the group in question explicitly (this topic will be discussed in depth later in this course) or implicitly when the group's time tickets were entered.

Example: Group Incentive Wages (5)

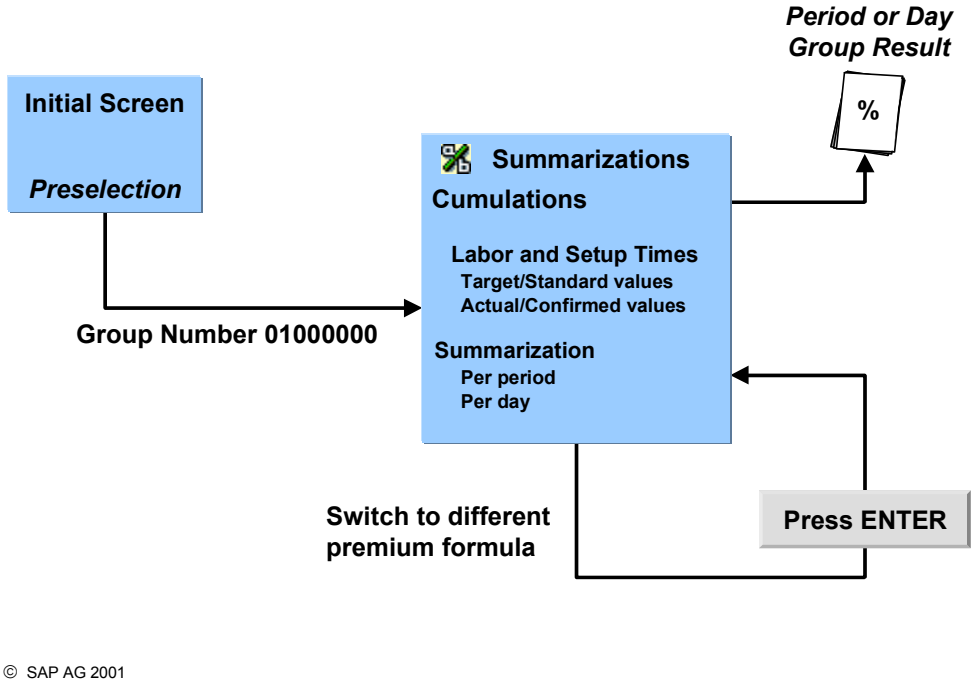
Entering a Foreman Time Ticket



- In contrast to *quantity* and *person* time tickets, a *foreman time ticket* has its own result.
- However, the premium formula of the group and the group result are also displayed.

Example: Group Incentive Wages (6)

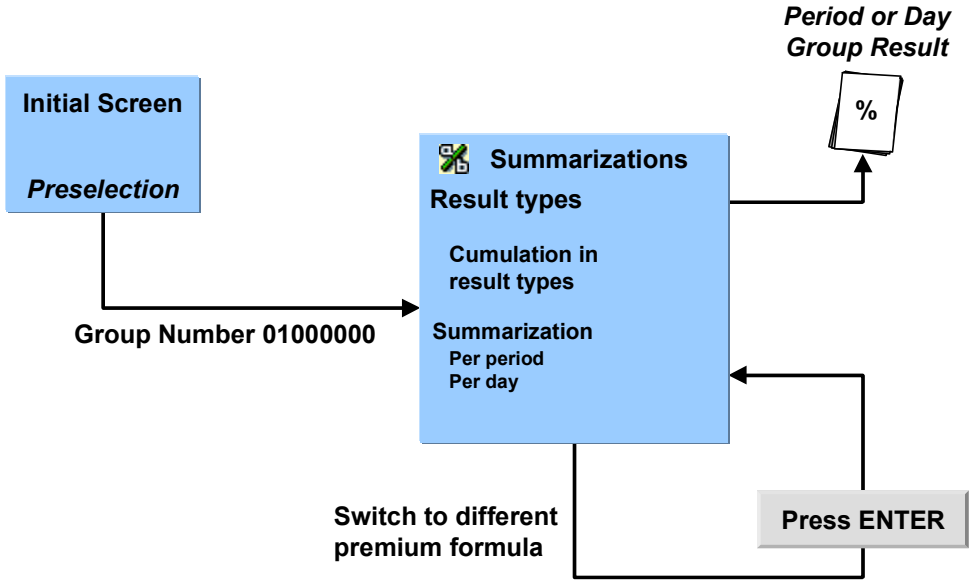
Cumulations



- The values in the *Results* column are calculated from the premium formula of the group. If you switch to a different premium formula, the *results* are updated when you press *Enter*.

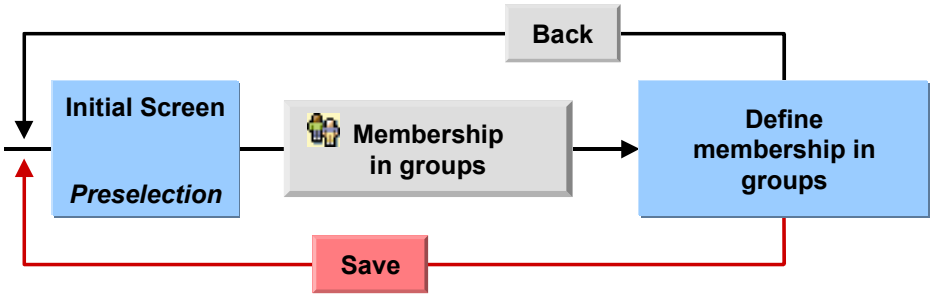
Example: Group Incentive Wages (7)

Result types



Internal Use SAP Partner Only

Creating Groups

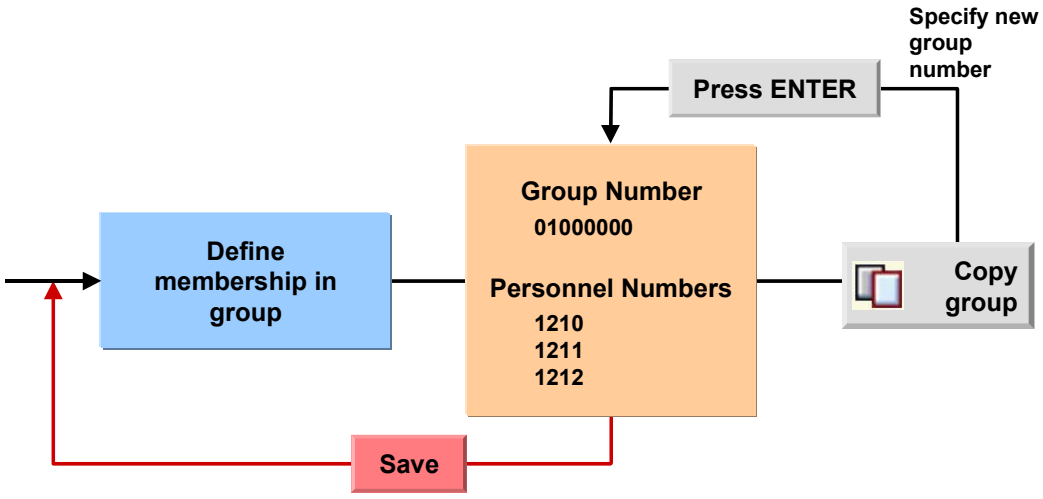


- When you record *person* and *foreman* time tickets, groups and their members are assigned automatically.
- You can also create new groups when you maintain time tickets.
- In *Customizing*, you can specify that groups must be created **first** before time tickets can be maintained. In this case, employees are not assigned to groups automatically.

Internal Use SAP Partner Only

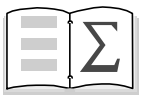
Group Incentive Wages

Maintaining Groups



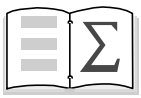
- A group exists for a maximum of one period and can then be copied to the subsequent period, if desired.

Processes: Unit Summary (1)



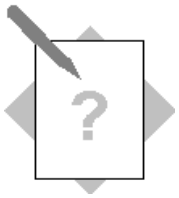
- In *Individual Incentive Wages*, incentive wages data is recorded in *time-related* and *premium* time tickets. Summarized values are available to gauge individual employees.
- In *Group Incentive Wages*, incentive wages data is recorded in *quantity*, *person* and *foreman* time tickets. Summarized values are also available here to gauge group performance.
- Time ticket data can be entered in both full screens and list screens.

Processes: Unit Summary (2)



- Cumulations, result types, and results are calculated for each day as well as for the entire period during the recording process.
- Group assignments automatically take place either prior to or during the recording of time tickets, depending on your *Customizing* settings.
- The premium formula for day and period results can be changed at any time using the maintenance transaction.

Exercises

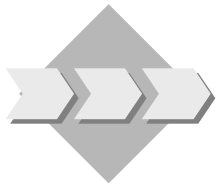


Unit: Processes in Incentive Wages (Examples)

Topic: Individual Incentive Wages/Group Incentive Wages

At the end of these exercises, you will be able to:

- Record time tickets for individual incentive wages, and then generate cumulations for an employee
- Record time tickets for group incentive wages, and then generate cumulations for the group



You work in the payroll department of a manufacturing company. One of your jobs is to record incentive wage data for employees in your company's IT system.

Please note that, where XX appears in the exercises below, you should replace this with your course group number (the number of the workstation at which you are sitting).

Individual Incentive Wages

Personnel Number	In exercises...	For workstation 7...	For workstation 23...
490991	490991XX	49099107	49099123
490992	490992XX	49099207	49099223
…	…	…	…

If any warnings about a period conflict appear when you record time tickets, simply press ENTER to ignore the warning and proceed further.

1-1 Record a time-related time ticket for the first workday of the current period for personnel number 490991XX.

1-1-1 In the *Labor time* fields, enter a labor time from 8:00 a.m. to 4:30 p.m.

1-2 Now, for the same employee, record a premium time ticket for the second workday of the current period.

Enter the following data:

Premium formula	100
Yield	90
Base quantity	10
Labor time – confirmed value	8
Labor time – standard value	1
Setup time – confirmed value	2
Setup time – target value	2

1-3 Save your entries.

1-4 Check over the cumulations stored for this employee in the current period. Remember to specify premium formula 100 (target/actual with setup time) as the premium formula for the period. Remember also that you have to switch to the *Maintain Time Tickets* transaction.

The period result of the cumulations must be 110%. Click the *Result types* tab page – a value of 7.5 hours must be displayed for the result type *Average.*

Internal Use SAP Partner Only

Group Incentive Wages

Group Number	In exercises...	For workstation 7...	For workstation 23...
01000000	010000XX	01000007	01000023
…	…	…	…

1-5 Create an incentive wage group for the current period. This wage group should include the following employees:

Pers. no.: 490992XX Donna Moore
490993XX Thor Nielsen
490994XX Saskia de Leeuw

1-6 Record the following quantity time tickets for the current period for incentive wage group 010000XX. Use the list screen to do this.

Posting date	1st workday in current period
Yield	2
Standard value	10

Posting date	2nd workday in current period
Yield	2
Standard value	10

Posting date	3rd workday in current period
Yield	1
Standard value	10

1-7 Save your entries.

Internal Use SAP Partner Only

1-8 Record the following person time tickets for the current period for incentive wage group 010000XX. Use the *List for several persons* screen to do this.

For the 1st workday in the current period:

Personnel number	**Confirmed values**
490992XX	6
490993XX	8
490994XX	4

For the 2nd workday in the current period:

Personnel number	**Confirmed values**
490992XX	5
490993XX	5
490994XX	6

For the 4th workday in the current period:

Personnel number	**Confirmed values**
490992XX	4

1-9 Now record a foreman time ticket for employee 490995XX (Oleg Kopp). On the 1st workday of the current month, Mr. Kopp worked the following times for group 010000XX:

Select the full screen to record this information:

Labor time – confirmed value	2
Labor time – target value	2

Specify that premium formula 000 should be used to valuate the time ticket.

1-10 Save your entries.

1-11 Check over the cumulations stored for group 010000XX in the current period. Remember to specify premium formula 000 (target/actual) as the premium formula for the period. Remember also that you have to switch to the *Maintain Time Tickets* transaction.

The result for the group must be a labor utilization rate of 130%.

Internal Use SAP Partner Only

Unit: Processes in Incentive Wages

Topic: Individual Incentive Wages/Group Incentive Wages

Internal Use SAP Partner Only

Individual Incentive Wages

1-1 Record a time-related time ticket for the first workday of the current period for personnel number 490991XX.

Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Record.***

Enter the following values on the selection screen that appears:

Personnel number	490991XX
Time ticket type	04
Entry period	Current period

Click. 

1-1-1 Enter the first workday of the current period.

1-1-2 In the *Labor time* fields, enter a labor time from 8:00 a.m. to 4:30 p.m.

Click  (Enter).

1-2 Now, for the same employee, record a premium time ticket for the second workday of the current period.

In the *New time ticket type* box, enter time ticket type 01.

Enter the second workday of the current period.

Click ✔.

Enter the following data:

Premium formula	100
Yield	90
Base quantity	10
Labor time – confirmed value	8
Labor time – standard value	1
Setup time – confirmed value	2
Setup time – target value	2

Click ✔.

1-3 Click 💾.

1-4 Check over the cumulations stored for this employee in the current period.

Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Maintain.***

Enter personnel number 490991XX.

Click 🔧.

Enter the value 100 in the *Premium formula* field.

Click 💾.

The period result of the cumulations must be 110%. Click the *Result types* tab page – a value of 7.5 hours must be displayed for the result type *Average.*

Group Incentive Wages

1-5 Create an incentive wage group for the current period. This wage group should include the following employees:

Pers. no.: 490992XX Donna Moore
490993XX Thor Nielsen
490994XX Saskia de Leeuw

Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Maintain.***

Click  .

Enter 010000XX as the group number.

Now enter personnel numbers 490992XX, 490993XX, 490994XX.

Click  .

Click  .

1-6 Record the following quantity time tickets for the current period for incentive wage group 010000XX.

Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Record.***

Enter 010000XX as the group number, and specify the current period as the period.

Select time ticket type 02.

Click  .

Enter the following data:

Posting date	1st workday in current period
Yield	2
Standard value	10

Posting date	2nd workday in current period
Yield	2
Standard value	10

Posting date	3rd workday in current period
Yield	1
Standard value	10

Internal Use SAP Partner Only

1-7 Click .

1-8 Record the following person time tickets for the current period for incentive wage group 010000XX.

Select time ticket type 03.

Click .

On the *For several persons* tab page, enter the following data:

For the 1st workday in the current period:

Personnel number	**Confirmed values**
490992XX	6
490993XX	8
490994XX	4

For the 2nd workday in the current period:

Personnel number	**Confirmed values**
490992XX	5
490993XX	5
490994XX	6

For the 4th workday in the current period:

Personnel number	**Confirmed values**
490992XX	4

Click .

1-9 Now record a foreman time ticket for employee 490995XX (Oleg Kopp).

Enter 010000XX as the group number, and 490995XX as the personnel number. Select time ticket type 05 and the current period.

Click .

Enter the following data for the 1st workday in the current period:

Premium formula	000
Labor time – confirmed value	2
Labor time – target value	2

1-10 Click  .

1-11 Check over the cumulations stored for group 010000XX in the current period.

Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Maintain.***

Enter 010000XX as the group number, and specify the current period as the period.

Click  .

Look at the *Cumulations* tab page. The result for the group must be a labor utilization rate of 130%.

Internal Use SAP Partner Only

Customizing

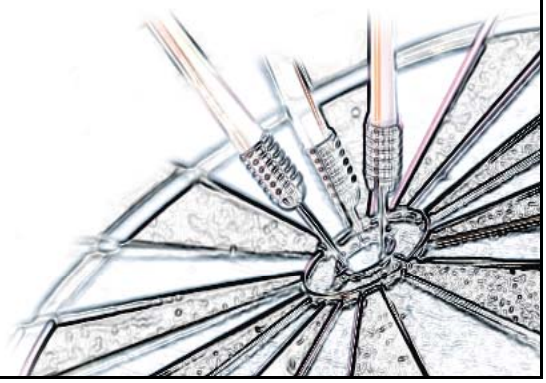
Contents:

- Default Settings
- Groups
- Time Ticket Types
- Premium Formulas
- (Integration with *Logistics* - see Unit 6)
- (Payroll - see Unit 8)
- (Time Evaluation - see Units 7 and 9)
- Authorization Management

Customizing: Unit Objectives

At the conclusion of this unit, you will be able to:

- **Explain what global settings can be made for the Incentive Wages component and its transactions**
- **Know what settings can be made specifically for entry screens and premium formulas**

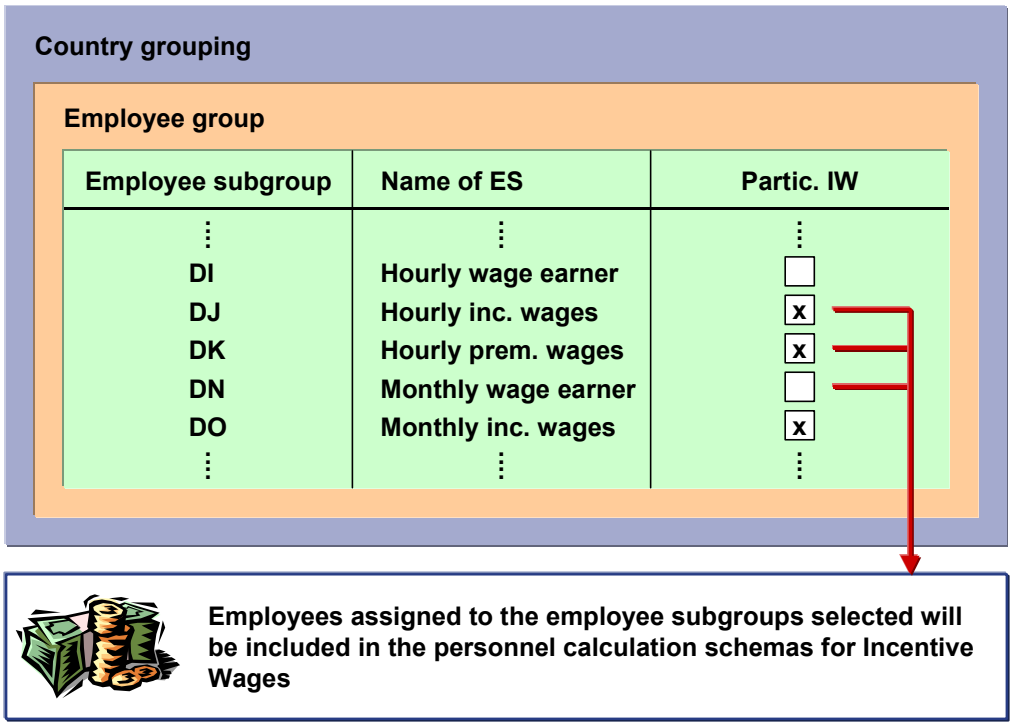


Prerequisites from *Personnel Administration*

Infotypes	Must exist	Reaction if missing
Actions (0000)	X	Termination
Organizational Assignment (0001)	X	Termination
Payroll Status (0003)	X	Termination
Planned Working Time (0007)	Actual Time	-
Basic Pay (0008)	Pay Scale Group	-

- The infotypes listed in the table above are required for time ticket recording.
- Infotypes 0000, 0001, and 0003 are mandatory. Infotypes 0007 and 0008 are only required if the pay scale group is to be validated or the actual time to be calculated from the personal work schedule.
- If infotype 0000, 0001, or 0003 is missing, the system generates an error message. If the other two infotypes are missing, you can still record time tickets, but they will not be validated or calculated. The system does not generate an error message in this case.
- Validations and calculations are always employee-based. Time tickets are not validated for the group as a whole.

Specify Employee Subgroups for Participation in Incentive Wages

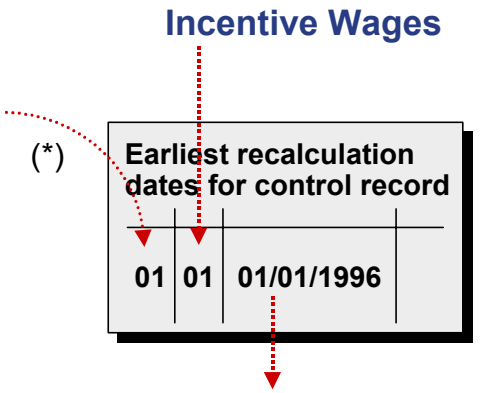


- The *Participation in IW* flag is taken into account in the personnel calculation rules in Payroll.

Default Settings: Earliest Recalculation Date for Incentive Wages

Feature TIMMO

- **Input:**
  - Company Code
  - Personnel Area
  - Personnel Subarea
  - Employee Group
  - Employee Subgroup
  - Country Grouping
- **Output:**
  - Grouping



Variable	Argument	F	D	Operations
000010				&TIMMO=01,

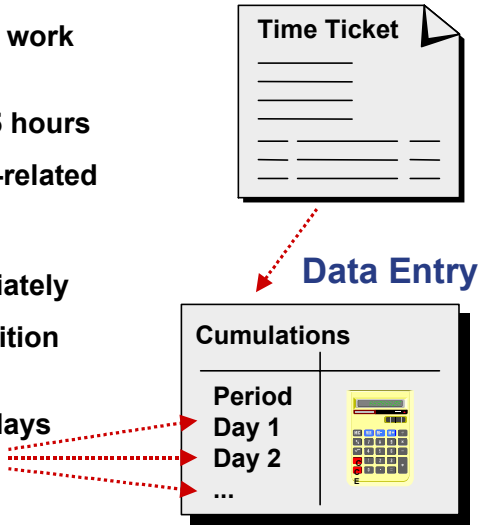
(*) see text

- You can set an earliest recalculation period for the following activities: recording time events and pair formation, time evaluation, the time statement form, and **recording time tickets**. Please note that the same grouping (*) is used for all of the above activities.
- The grouping for the earliest recalculation date allows you to set different recalculation dates for different company codes, personnel areas/subareas, and so on.
- **Example**:
  For organizational reasons, you want to define a longer recalculation period for personnel subarea 0004 than for your other personnel subareas.
  To set this up, you create two groupings. You then assign the grouping (*) 01 to all personnel subareas except 0004; and the grouping (*) 02 to personnel subarea 0004 only.

Default Settings: Maintain Parameters for Incentive Wages

- **Include daily work schedule?**
  - **Include breaks as per work schedule rule**
  - ***Planned Working Time* infotype (0007), work schedule rule FLEX**
  - **Actual time: 8:00 a.m. - 10:00 a.m. = 1.5 hours**
  - **Personnel number required, employee-related**
- **Generate daily cumulations?**
  - **Cumulations always calculated immediately**
  - **Cumulations for individual days in addition to cumulations for the entire period**

Cumulations generated for individual days



- You can maintain general incentive wage parameters that are not specific to certain time ticket types or transactions.
- If the cumulations for individual days are not activated until the system goes live, you can use special reports to recalculate cumulations. To access these reports, choose the *Tools* menu option in the *Incentive Wages* menu.
- If you do not need to see cumulations for individual days, you can deactivate this parameter here.
- Paid breaks are not deducted when the daily work schedule is referenced. It is assumed that the paid breaks have already been taken into account in the standard times.

Default Settings: Maintain Transaction Parameters 1

- **Name of transaction** 
- **Transaction status**
  - **1 Display, maintain, and create time tickets** **PW01**
  - **2 Display time tickets** **PW02**
  - **3 Create time tickets** **PW03**
- **Selection screen: default values for date and payroll area**
  - **0 Period corresponding to current date**
  - **1 Current date as key date**
  - **2 Date of previous day as key date**
  - **3 Period in accordance with personnel control record**
  - **4 Next unaccounted period according to personnel control record**

- The main reason for customizing the transaction parameters is to tailor the standard transactions to your individual requirements. For example, you can specify which date should be proposed by default when a time ticket is recorded.
- If the value of the *default value for date* is 3 or 4, the relevant *payroll area* must also be entered as a parameter.

Default Settings: Maintain Transaction Parameters 2

- **Messages**
  - **No disruptive messages when entering data with PW03**
  - **Data security when using PW01**

Message Types	PW01	PW02	PW03
Check input	x	-	-
Check input in lists	x	-	-
Confirm deletion	x	-	-
Display warnings	x	-	x
Display information messages	x	-	x

- Later on in this course, you will be shown how to override message types in transaction parameters - on the basis of the user involved.

Default Settings: User Exits

- **Calculations**
  - Time ticket type
  - Read daily work schedule
  - Target time for
    - Labor
    - Setup
    - Teardown
    - Machines
    - Variable activity type
- **Calculations**
  - Premium formula for
    - Employee
    - Group
    - Time ticket
  - Calculate LU rate
  - Cumulate time ticket data
  - User-specific fields
- **Validations**
  - Group number
  - Wage type
  - Pay scale group/level
  - Cost center
- ***Logistics* integration**
  - Read own order data
  - Retrieve own confirmations
- **Alternative to the standard system; not an enhancement of the standard system**

Default Settings: Create User Exits

- Set switch to trigger start of routine
- Copy and modify standard program code from MP53LF99 or MP53LF98
- Use declarations from MP53LF99 or MP53LF98
- Check and generate SAPMP53L

- The standard system reaction can be switched off by activating a user exit with an blank ABAP FORM.

Default Settings: Set User Parameters

- **User name** **Mayer**
- **Incentive Wages transaction** **PW01**

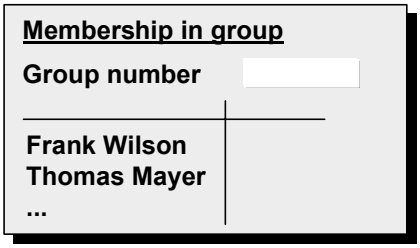
- **User parameters override transaction parameters**

Message Type	Mayer PW01
Check input	-
Check input in lists	-
Confirm deletion	x
Display warnings	-
Display information messages	-

- If the settings for the message types in the transaction parameters are too general, you can make more exact specifications in the user parameters. User parameters have priority over transaction parameters.
- A user name is the name with which you log on to the system.
- You cannot specify a user-specific default value for the entry date.

Groups: Validate Group Membership

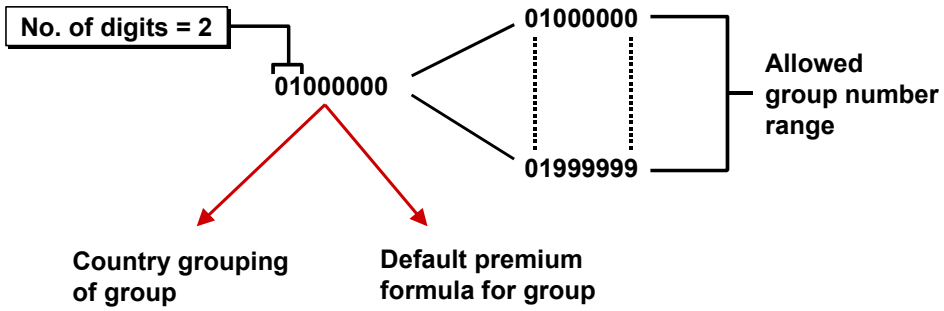
- **If activated...**
  - **Groups must be created before time tickets are entered**
  - **Employees must first be assigned to groups in time ticket maintenance**



- If the function for validating an employee's membership in a group is activated, the employee must first be explicitly assigned to a group (in the transaction for maintaining time tickets) before a group time ticket can be entered for that employee. If the function is deactivated, the employee is automatically assigned to the group specified when group time tickets are entered and maintained.
- Validating an employee's membership in a group and validating the group number are two separate functions.

Groups: Validate Group Number

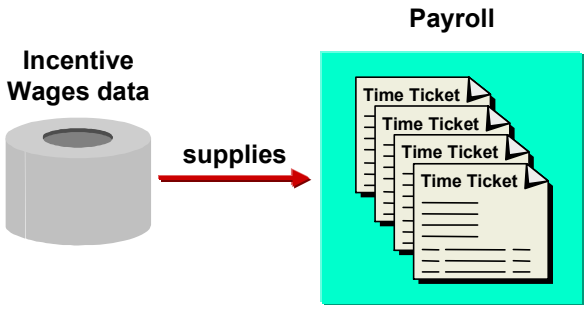
- **Function**
  - **Validate group number**
  - **Set country grouping for group**
  - **Propose premium formula used for the group during the period**



- When the system validates the group number, it determines the permitted number range for groups created in time ticket recording and maintenance.
- **Example:**
  If you enter a "2" in the *Validate group number* field and 01000000 in the *Incentive Wages:Groups* view, this will mean that you can only create groups in the number range 01000000 through 01999999 in time ticket maintenance/recording. The number 33000000, for example, would be impermissible in this case, and would be rejected.
- The group number is validated "generically."
- In addition to using the validation functionality and defining the country assignment of a group, you can also use the table to propose a premium formula for the group in question. This will be the premium formula for the day and period results of this group.
- The *country grouping* does not have to be part of the group number.
- When validating the group number to see if it has 0 characters, the entry 00000000 must still exist because it determines the country grouping.
- If the group numbers are validated with reference to certain values (or value ranges), then the default entry 00000000 is not required.

Creating Time Ticket Types: Payroll Indicators

- Not valuated in *Payroll* (for example, target time credit)
- 1 Valuated using the result of the time ticket or the employee (for example, premium time ticket)
- 2 Valuated using the group result (for example, person time ticket)



- The payroll indicator is used in *Payroll* to decide whether a time ticket should be made available, and whether it should be valuated using the employee's results or the results of the group. Only time tickets with an activated *Personnel number required* field are made available.
- The payroll indicator is only evaluated by functions PW1 and PW2. These functions are explained in more detail in **Unit 8: Running Payroll**.
- The payroll indicator can be left blank if, for example, you want to record target time credits using your own time ticket type. A target time credit increases the labor utilization rate of the employee or group, but is not directly valuated in payroll.

Create Time Ticket Types: Time Ticket Attributes

- **Time ticket type** 

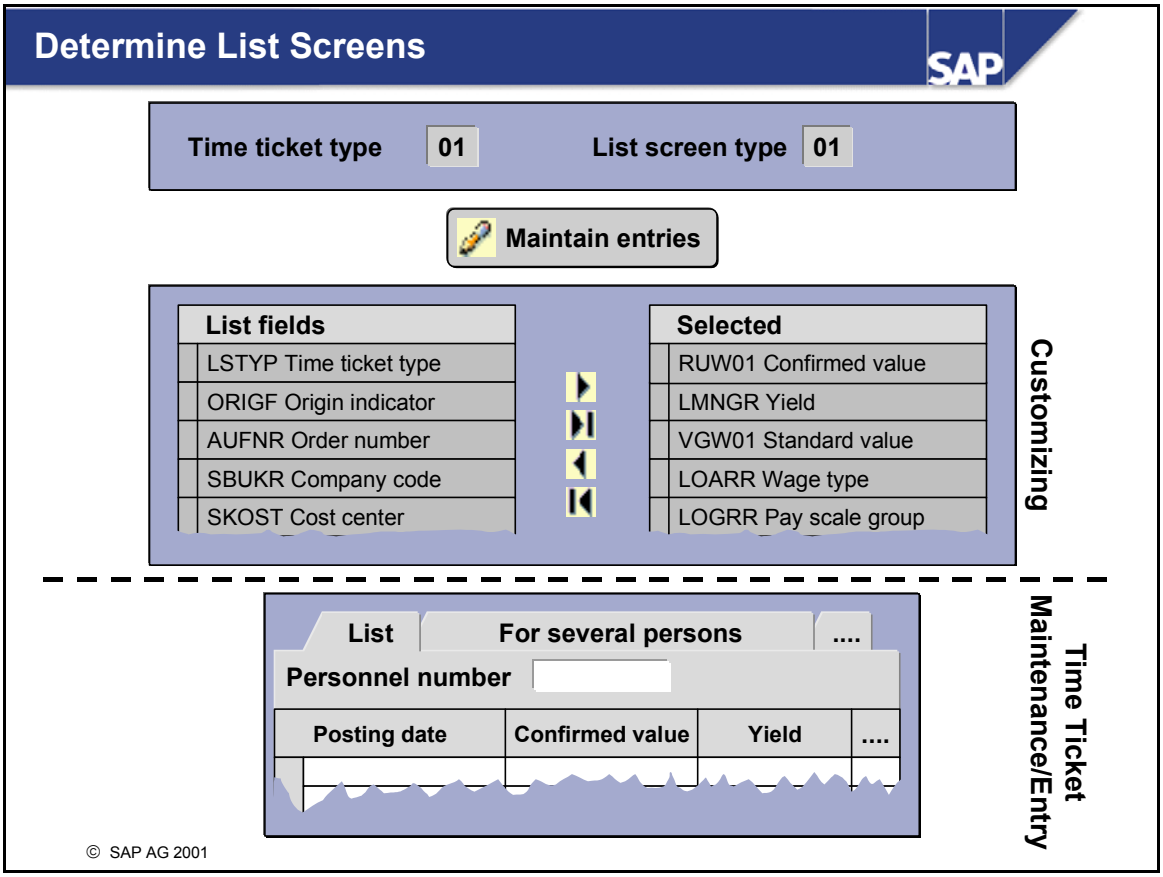
	Individual Incentive Wages		Group Incentive Wages		
Time Ticket Attribute	Premium Time Ticket	Time-Rel. Time Ticket	Quantity Time Ticket	Person Time Ticket	Foreman Time Ticket
Personnel number required	X	X	-	X	X
Group number required	-	-	X	X	X
Time ticket has individual result	X	-	-	-	X
Integration with Logistics	X	-	X	X	X

- The *Personnel number required* and *Group number required* fields determine whether the time ticket is to be used in individual incentive wages or in group incentive wages.
- If you activate the *Time ticket has individual result* field, an individual labor utilization rate is calculated for each time ticket. The *Time ticket has individual result* field can also be activated for a group time ticket. In this case, the employee contributes to the group result, but is not valuated using the group result.
- The *Integration with Logistics* switch only determines whether the *Confirmation number, Confirmation counter, Order, Sequence, Operation* and *Sub-operation* fields are displayed and ready for entry. The switch does not trigger the retrieval of specifications from *Logistics*, nor the calculation of the target times. There is a separate switch for this purpose which is discussed in **Unit: Integration with Logistics**.

Time Ticket Types: Define Entry Screens

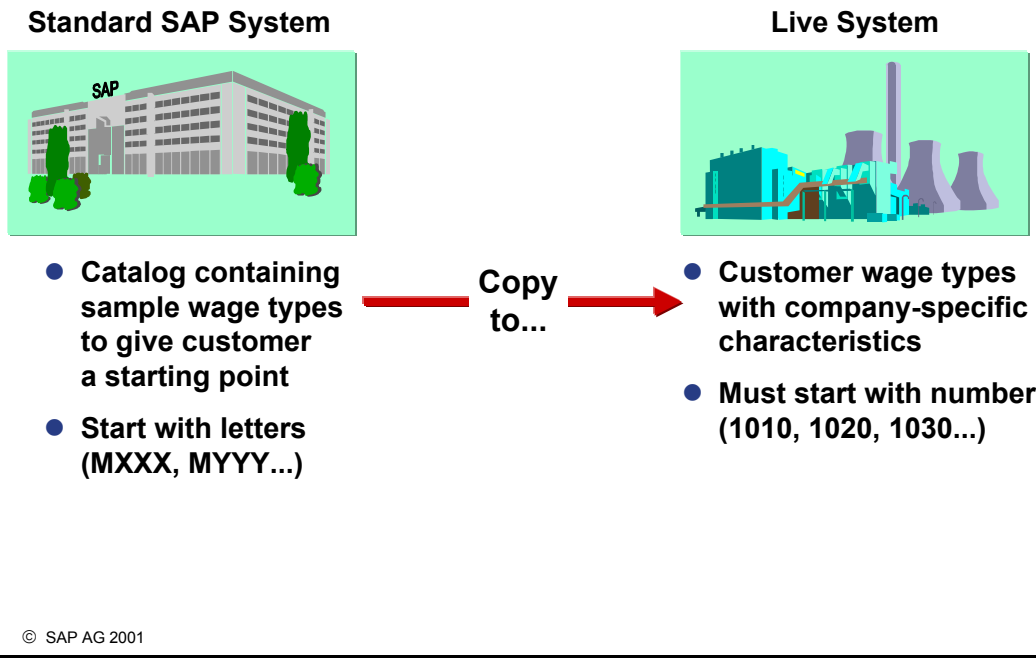
- **Screen**
  - **Number**
- **Screen Type**
  - **0 Full screen**
  - **1 List**
  - **2 List for several persons**
  - **3 List for several groups**
  - **4 List for several persons and groups**
- **Ready for Input**
  - **Personnel number**
  - **Group number**
- **Time Ticket Type**

- **Use:** You can define your own entry screens and assign them to either standard time ticket types or time ticket types you have created. You will, however, require the *Screen Painter* to do so.
- **Standard System Settings:** The standard entry screens for time tickets as well as the screens for parameters, results, and cumulations in *Incentive Wages* are stored and described in the standard system settings.
- The fields are usually rearranged so that the screen corresponds to the printed document.
- Remember that only one screen is permitted for each time ticket type and screen type.
- Assign only the screen types 0 to 4 to your entry screens. The remaining screen types are for internal use.
- **Creating your own time tickets:**
  1) Copy a suitable time ticket type in the *Create Time Ticket Types* view. Check first, though, whether you are working with an individual or a group time ticket.
  2) Copy the corresponding screen in program SAPMP53L.
  3) Copy the line in the *Define Entry Screens* view and replace the number of the screen and the number of the time ticket type with the screen you have just copied.

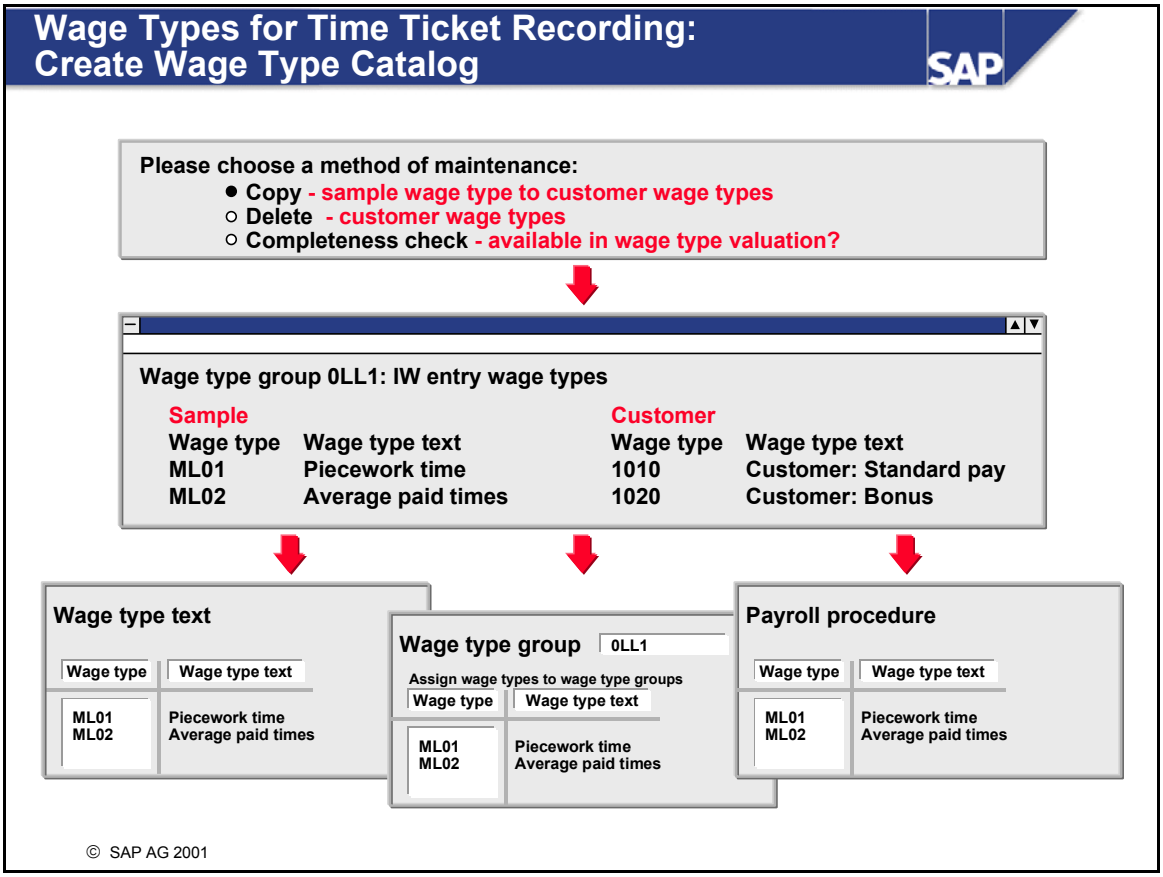


- If you activated the *Personnel number required* field for the time ticket type in the step entitled *Create Time Ticket Types*, then you will be able to choose from **list types 1 and 2**.
- If you activated the *Group number required* field for the time ticket type in the step entitled *Create Time Ticket Types*, then you will be able to choose from **list types 1 and 3**.
- If you activated both the *Personnel number required* field and the *Group number required* field for the time ticket type in the step entitled *Create Time Ticket Types*, then you will be able to choose from **list types 2, 3 and 4**.
- The *Posting date* field is always displayed in the lists - it is not available for selection in Customizing.

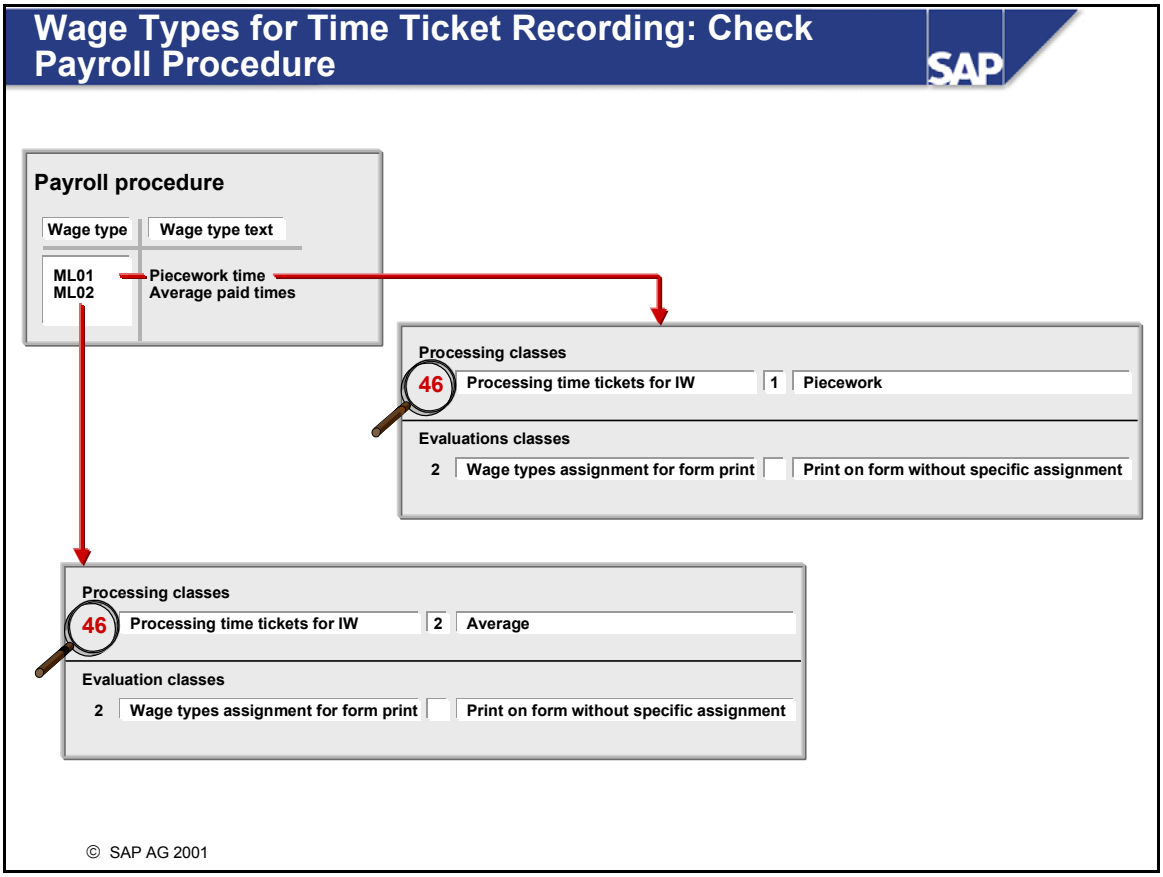
Wage Types for Time Ticket Recording: SAP Sample Wage Type Catalog



- The standard SAP System contains sample wage types. The sample wage types provided have been defined specially to cover as wide a range of customer requirements as possible. You can copy the sample wage types using the wage type copy function. Once you have made copies of the sample wage types you wish to use, you can tailor them to your specific requirements.



- In the *Create Wage Type Catalog* step, you copy SAP sample wage types to customer wage types. You use the wage type copy function to do this.
- In the *Check Wage Type Catalog* step, you carry out the following activities:
  - *Check wage type text*
  - *Check assignment for "Recording Wage Type" wage type group*
  - *Check Payroll procedure*



- Processing class 46 determines whether the wage type should be treated as piecework or average wage. This processing class is used in *Time Management*, especially in *Time Leveling*, as well as in the sample personnel calculation rules for incentive wages in *Payroll*.
- All wage types used in time tickets must be assigned to processing class 46.

Time Ticket Types: Maintain Assignment of Recording Wage Types

- **For time ticket type** 
- **Permitted wage types**
- **Default wage type**

Time Ticket Type	Wage Type	Default
Premium Time Ticket	ML01	x
	ML02	
Person Time Ticket	ML01	x
	ML02	
Time-Rel. Time Ticket	ML02	x

- The wage types in time tickets are validated against the *Permitted Wage Types per Time Ticket Type* view - in other words, only wage types that are allowed for the time ticket type in question are displayed for selection.
- Wage types can also be entered in *Logistics* confirmations. These confirmations are validated against the data in the above view when they are transferred to *Incentive Wages*.
- Wage types are discussed in more detail in **Unit 8: Running Payroll**.
  - ML01 = Recording wage type for performance-based compensation
  - ML02 = Recording wage type for compensation based on averages

Internal Use SAP Partner Only

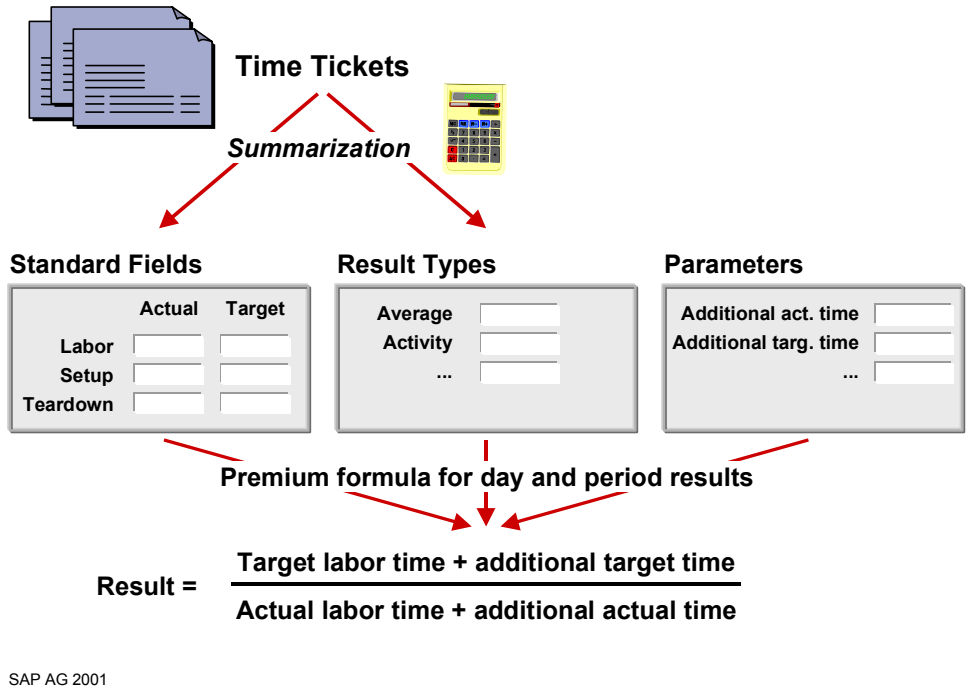
Premium Formulas: Create Premium Formula

- **General descriptive characteristics**
- **Defined as follows:**
  - **3-digit number (xxx)** 
  - **Use**
    - **1 In time tickets and period results**
    - **2 In time tickets**
    - **3 In period results**
  - **Descriptive text for the premium formula**
  - **Validity period**
  - **Descriptive text for the result**
  - **Value limits**

- You merely define general descriptive characteristics for the premium formula in this step. The calculation rule is not defined until all of the factors on which it is based have been defined.
- In the *Use* field, you determine where the premium formula can be used. The field is validated:
  - When time tickets are entered or maintained
  - When the day and period results are determined from cumulations, results types, and parameters
- *Use 1 (in time tickets and period results)* must always be specified in the standard premium formula 000.
- The *Value limits* are only validated for results of time tickets and appear highlighted (in contrasting color) in *Time Leveling*.

Internal Use SAP Partner Only

Premium Formula: Overview of Cumulations and Parameters



- Time ticket fields are summarized in standard fields and result types. Standard fields, result types, and additional parameters are all components that go to make up the calculation rule of the premium formula for day and period results. The calculation rule determines the result (a labor utilization rate or premium, for example.)

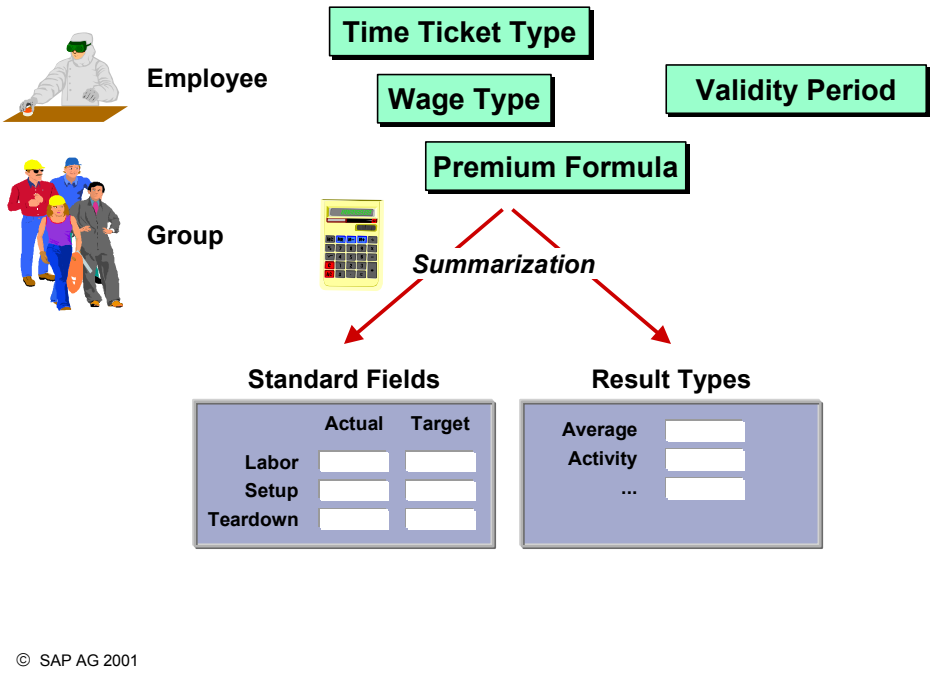
Premium Formulas: Create Result Types

- **Standard cumulations**
  - **Actual and target labor time, actual and target setup time, actual and target teardown time**
- **Result types supplement standard cumulations**
- **Specify name and description**

Result type	
DSCHN	Average
LEIST	Activity time
...	...

- If the standard fields for cumulations are not sufficient for your purposes, you can use the result types to define your own fields in which time ticket values are cumulated.

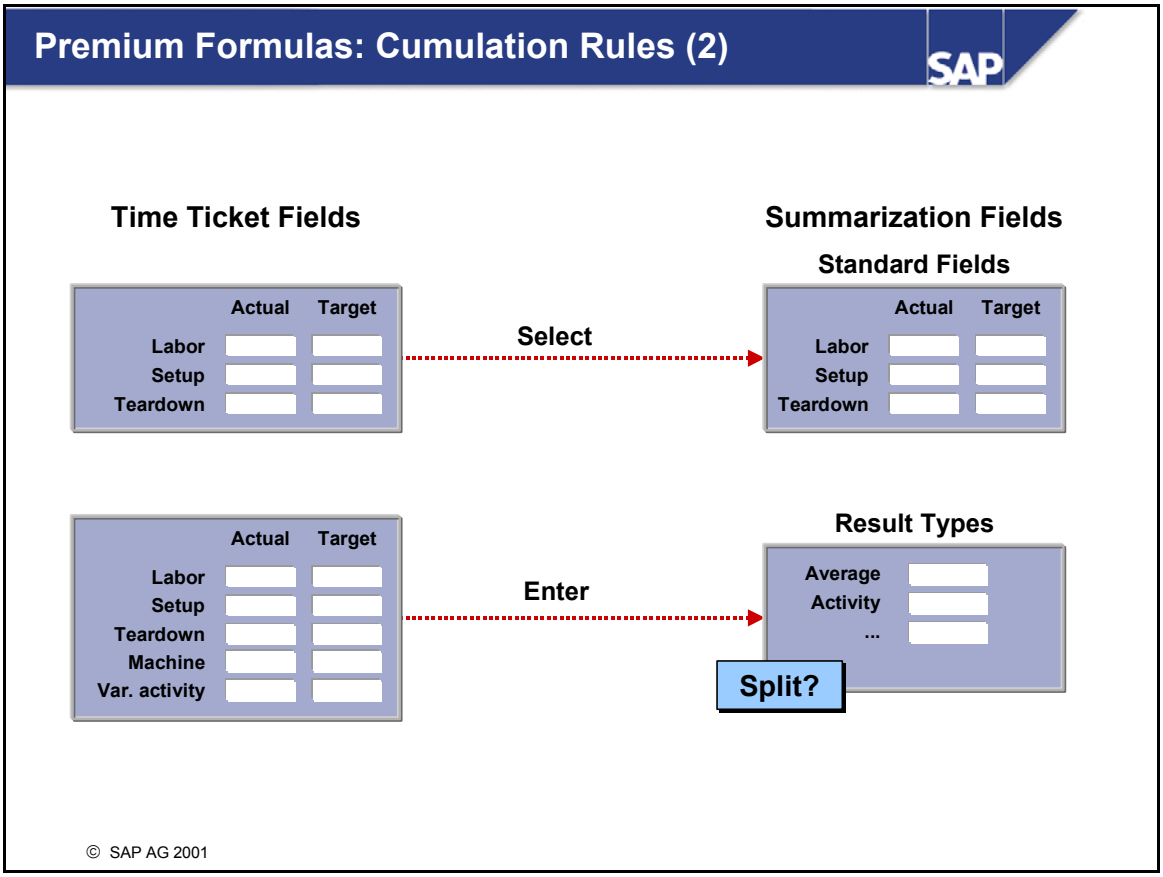
Premium Formulas: Cumulation Rules (1)



- You define cumulation rules for specific combinations of time ticket type, wage type, and premium formula.
- In the standard system, the actual times for all time tickets paid using an average (wage type ML02) are summarized in the result type *Average*.
- In individual incentive wages, the actual and target times for time tickets paid according to performance (wage type ML01) are summarized in the same standard fields as those used for cumulations. The values are summarized for each individual employee and are also saved separately for each employee.
- In group incentive wages, the actual and target times for time tickets paid according to performance are summarized as above, but this time for the group as a whole.
- The foreman time ticket is a special case. This time ticket contributes to the group result as well as to the individual result of the employee.

Internal Use SAP Partner Only

Premium Formulas: Cumulation Rules (2)



- You activate *Standard cumulations* by flagging the appropriate fields.
- In addition, you can write cumulated target and actual times to *result types*. In this case, you enter the name of the required result type.
- The *split indicator* allows result types in time ticket maintenance to be broken down further. If you change the split indicator, you must carry out a *recalculation* for time tickets that have already been recorded. You can carry out the splitting process in the following ways:
  - _ No splitting
  - 1 Splitting on the basis of all criteria
  - 2 Splitting by order number
  - 3 Splitting by company code and cost center
  - 4 Splitting by time ticket number
- You must specify the cumulation rules for individual incentive wages and group incentive wages separately.

Premium Formulas: Create Parameters

- **Only for calculating day and period results**
- **Specify name and description**

Parameter	
ZGMAX	Maximum LU rate
ZGMIN	Minimum LU rate
ZISTZ	Additional actual time
ZSOLZ	Additional target time

- Parameters cannot be used for premium formulas that are specified in time tickets.
- Parameter values can be used as external influencing factors that are not derived from the time ticket fields.

Premium Formulas: Assign Parameters

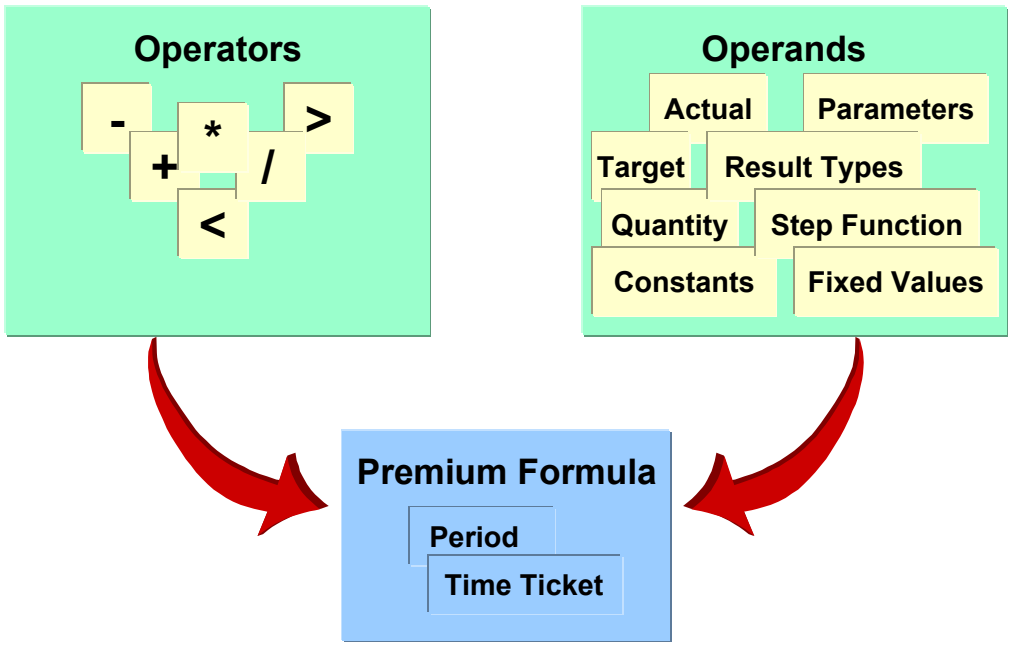
- **Parameters can only be used in premium formulas to which they are assigned**
- **Parameter values**
  - **Fixed value or**
  - **Constant**
  - **Can be overwritten in time ticket maintenance**
- **Example for parameters ZSOLZ and ZISTZ**
  - **Basis of target and actual times in premium formula 300**

$$\text{LU Rate} = \frac{\text{Target value + base amount for target time}}{\text{Actual value + base amount for actual time}}$$

- The parameter value can be specified when the parameter is assigned to a premium formula (this is optional). In this way, the same parameter can contain different values for different premium formulas.
- Constants are maintained in the *HR Constants* table (T511K). You can specify time restrictions for constants.

Internal Use SAP Partner Only

Premium Formulas: Calculation Rules



Premium Formulas: Operators for Calculation Rules

+	Addition
-	Subtraction
*	Multiplication
/	Division
>	Maximum
<	Minimum
"	End of line comments

Premium Formulas: Operands for Calculation Rules (1)

- **For time ticket results**
  - **RUW01...05 Confirmed value 1...5**
  - **VGW01...05 Standard value 1...5**
  - **SOW01...05 Target value 1...5**
  - **LMNGR Yield**
  - **XMNGR Scrap**
  - **BMSCH Base quantity for standard values**
  - **All remaining time ticket fields**

Only for time ticket formulas

- Time ticket fields and standard cumulation fields are referenced by their field names.
- The numbers after RUW, VGW, and SOW have the following meaning:
  - 01 = Labor time
  - 02 = Setup time
  - 03 = Machine time
  - 04 = Variable activity time
  - 05 = Teardown time
- All time ticket fields can be used in the premium formulas for time tickets.

Premium Formulas: Operands for Calculation Rules (2)

Only for day and period formulas

- **For day and period results**
  - **RUW01, RUW02 and RUW05 (summarized confirmed values)**
  - **SOW01, SOW02 and SOW05 (summarized target values)**
  - **Result types**
  - **Parameters**

- Time ticket fields and standard cumulation fields are referenced by their field names.
- Result types and parameters are referenced using the names defined in *Customizing*.
- The numbers after RUW, VGW, and SOW have the following meaning:
  - 01 = Labor time
  - 02 = Setup time
  - 05 = Teardown time
- Summarized fields are available for day and period formulas. Time ticket fields cannot be used here.
- If a premium formula is to be used in both time tickets as well as for day and period results *(Use 1 in time tickets and period results),* then you can only use fields *RUW01, RUW02, RUW05, SOW 01, SOW02,* and *SOW05*.

Premium Formulas: Operands for Calculation Rules (3)

- **Constants**
  - **Start with character &**
  - **Fixed value**
    - **&1234567**
    - **Always 7-digit**
    - **Numbers (digits) and decimal point**
  - **Constant**
    - **&12345**
    - **Always 5-digit**
    - **Comes from table of system constants**
    - **Is time-dependent**
- **Step Function**
  - **$123**
  - **3 places after decimal point**

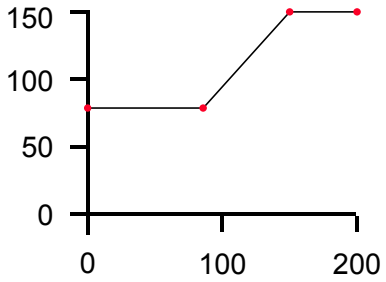
- Constants are maintained in the *HR Constants* table (T511K) and are time-dependent.

Premium Formula: Step Functions for Calculation Rules

- **Name and key determine value**

- **Example: Step function $100**

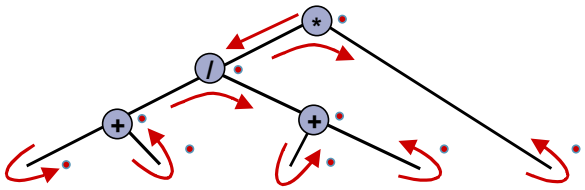
Key	Value
80.000	80.000
150.000	
99999.999	150.000



- "Step functions" are defined in this view. Fixed values are assigned to the result or interim result of the premium formula for certain areas.
- Step functions can be used to supplement or cap the result. In the above example, a result of less than 80 is supplemented to 80, a result between 80 and 150 remains the same, and a result of more than 150 is capped to 150.
- Step functions are time-based.

Premium Formulas: Set Calculation Rules

- **Formula name**
- **Excerpt from formula 400**
  - **Conversion from infix to postfix and vice-versa**



Infix: **((SOW01 + ZSOLZ) / (RUW01 + ZISTZ)) * &100.000**

Postfix: **SOW01 ZSOLZ + RUW01 ZISTZ + / &100.000 ***

- **Note: Result is multiplied by 100 before output**

- Before you define a premium formula in this view, you must already have created the corresponding parameters, result types, and premium functions, and assigned them to the premium formula.
- The rules for calculating the premium result are stored in postfix notation.
- If a calculation rule extends over several lines, you must number the lines.
- To convert a premium formula from an infix to a postfix notation, set up a tree structure as shown above. The nodes of the tree are the operations and the subnodes are the operands. You can then navigate the tree starting at its "root." Note the operators or operands located at the positions marked with a dot. Once you are back at the root, the infix formula has been successfully converted to a postfix formula.

Internal Use SAP Partner Only

Authorization Management: Objects

- SAP *Basis* functionality
- Maintain authorizations for *Human Resources*
  - Object P_PCLX: Read and write authorization for clusters
    - Individual incentive wages (L1) and group incentive wages (G1)
  - Object P_ORGIN: Read authorization for master data infotypes
    - *Actions* (0000), *Organizational Assignment* (0001), and *Payroll Status* (0003)
  - Object P_TCODE: Authorization to execute transactions
    - Maintain (PW01), display (PW02), enter (PW03)

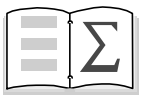
- You might need to set up more authorizations for executing reports and other transactions. These might include authorizations for the *Worklist* transaction (PT40), and for the reports *Error Handling (RPTERR00)* and *Time Leveling (RPTCMP00)*.

Authorization Management: HR Master Data

Infotypes	Must exist	Reaction if infotype is missing	User must have authorization	Reaction if authorization is missing
Actions (0000)	X	Termination	X	Termination
Organizational Assignment (0001)	X	Termination	X	Termination
Payroll Status (0003)	X	Termination	X	Termination
Planned Working Time (0007)	Actual Time	-	-	-
Basic Pay (0008)	Pay Scale Group	-	-	-

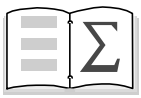
- The *Planned Working Time* infotype (0007) is required in order to calculate the actual time (to take unpaid breaks into account, for example).
- The *Basic Pay* infotype (0008) is required to validate the pay scale group.
- The user does not need to have authorization for these two infotypes.

Customizing: Unit Summary (1)



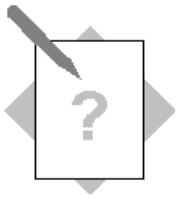
- Personnel administrators must at least have read authorizations for *HR Master Data* infotypes.
- In the *Default Settings* section of the Incentive Wages IMG, you make general settings (characteristics for transactions, for example).
- In the *Groups* section, you specify whether group-specific validations should take place, and if so, what type of validations are carried out.
- You can define various entry screens and determine which wage types are permitted for each time ticket type.
  You can define your own time ticket types by copying one of the standard time tickets.

Customizing: Unit Summary (2)



- In the *Premium Formulas* section, you determine the fields where time ticket values are to be summarized.
- The calculation rules determine how time ticket results and day and period results are calculated.
- A distinction should be made between the premium formulas used in time tickets and those used for day and period results.
- Parameters are used to define supplementary factors in premium formulas for day and period results.

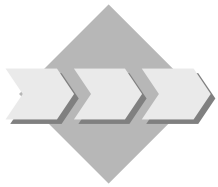
Exercises



Unit: Customizing

At the end of these exercises, you will be able to:

- Create your own time ticket types
- Create premium formulas, and assign these to time ticket types



You work in the project team that is implementing the Incentive Wages component. Your job is to look at your company's specific requirements, and use this information as a basis for creating and testing new time ticket types and premium formulas.

In the following exercises, replace XX with the number of your course group/workstation. If you are in groups 1 through 9, add a zero (e.g. 01, 02, etc.).

Always use the following personnel number in the following exercises:

Personnel Number	**Course Group/Workstation 23**
490996XX	49099623

2-1 Creating a Time Ticket Type

The time ticket type you create is to be used to raise under-average performance using target time credit.

Example:
A target time of 4 hours is scheduled in the premium time ticket. The actual time achieved is 6 hours, however. To increase (supplement) the labor utilization rate to 100%, a target time credit of 2 hours, approved by the supervisor, is applied.

2-1-1 Define a time ticket type to use for target time credit.

- If you are in course groups 1-9, use the prefix Y followed by your single-digit course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 8**
Y*	Y8

- If you are in course groups 10-18, use the prefix Z followed by the last digit of your course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 10**
Z*	Z0
Time Ticket Type	Course Group/Workstation 17
Z*	Z7

- The time ticket is not included in Payroll.
- No individual result is required.
- A personnel number must be entered for the time ticket type.

2-1-2 Assign to the time ticket type a suitable full screen for entering time tickets.

- Enter *9XX1* as the number of your full screen.

Full Screen	**Course Group/Workstation 23**
9XX1	9231

2-1-3 Define the following types of list screen for your new time ticket type:

- List
- List for several persons

Use the list screen types of time ticket type 01 (premium time ticket) as a copy template.

Design your list screen as required.

2-1-4 Assign a wage type to your new time ticket type.

- Use wage type ML01.

2-1-5 In the cumulation rules for employees, copy an entry for your new time ticket type.

- Select time ticket type 01 with wage type ML01 and premium formula 000 as your copy template.

2-1-6 In the full screen, enter a premium wage type with 4 hours of target time and 6 hours of actual time for employee 490996XX. Then check over the cumulations.

2-1-7 Now, using your new time ticket type, record a target time credit of 2 hours.

Remember that you applied the following naming conventions when you created your time ticket type.

- If you are in course groups 1-9, use the prefix Y followed by your single-digit course group number for the new time ticket type

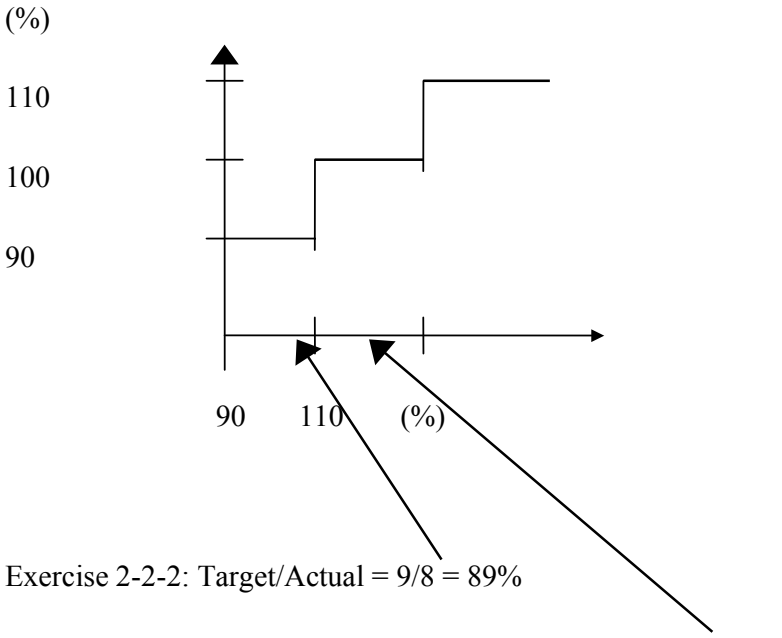
Time Ticket Type	**Course Group/Workstation 8**
Y*	Y8

- If you are in course groups 10-18, use the prefix Z followed by the last digit of your course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 10**
Z*	Z0
Time Ticket Type	**Course Group/Workstation 17**
Z*	Z7

- Check the cumulations and labor utilization rate for the period. What is the labor utilization rate after you record the target time credit?

2-2 **USING A STEP FUNCTION**: Create a premium formula called “Assignment” for use in the premium time ticket.



Exercise 2-2-2: Target/Actual = 9/8 = 89%

Exercise 2-2-5: Target/Actual x 105 % = 94% ----------> 100%

2-2-1 Enter data for the formula.

- Enter *9XX* as the number of the formula.

Formula Number	**Course Group/Workstation 23**
9XX	923

- The formula is only used for time tickets
- The result of the formula is a labor utilization rate percentage.
- A warning should always be issued during time ticket recording if the labor utilization rate is below 90% or over 110%.
- There should be no other formula-related reactions (warnings, error messages).

Internal Use SAP Partner Only

2-2-2 Create a step function.

- Enter *9XX* as the number of the step function.

Function Number	Course Group/Workstation 23
9XX	923

- A labor utilization rate below 90% is supplemented to 90%.
- A labor utilization rate between 90% and 110% is set to 100%.

2-2-3 Define a calculation rule for your premium formula.

- The labor utilization rate is the quotient of target to actual time, followed by a step function.

2-2-4 Enter a premium time ticket.

- Do this for employee 490996XX.
- Vary the values you enter in the time ticket to check the accuracy of the settings made in *Customizing*.

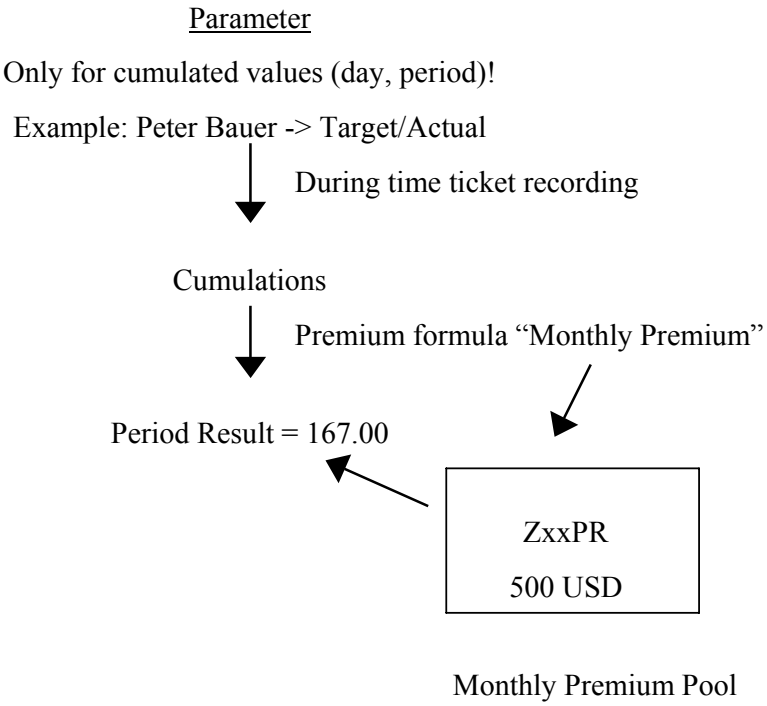
2-2-5 Add to your premium formula.

- Increase the target time:actual time ratio by 5%, so that this increased value is included in the calculation rule.

2-2-6 Change the premium time ticket you have just recorded.

- Vary the values to check the accuracy of the settings you made in *Customizing*.

2-3 **USING A PARAMETER**: Define a premium formula called “Monthly Premium” for a period.



2-3-1 Enter data for the formula.

- Enter *8XX* as the number of the formula.

Formula Number	**Course Group/Workstation 23**
8XX	823

- The result of the formula is a monetary amount.
- Neither warnings nor error messages should be issued.
- The formula should only be used for period results.

2-3-2 In the step entitled *Cumulation Rules for Employees*, copy an entry for time ticket type 01.

- Select time ticket type 01 with wage type ML01 and premium formula 000 as your copy template.

Internal Use SAP Partner Only

2-3-3 Create a parameter.

- The parameter represents a premium "pool." Each employee receives a share (percentage) according to his or her labor utilization rate.
- Enter the name ZXXPR for the parameter.

Parameter	Course Group/Workstation 23
ZXXPR	Z23PR

- Assign the parameter to the premium formula.
- It should be possible to change the parameter value in the *Incentive Wages* transaction.

2-3-4 Define a calculation rule for your premium formula.

- Each employee should receive a percentage of the premium pool proportional to the quotient resulting from target and actual time, as long as this value is over 100%.
- For a labor utilization rate of 105%, for example, 5% should then be distributed from the premium pool.
- For a labor utilization rate under 100%, the employee receives nothing from the premium pool.

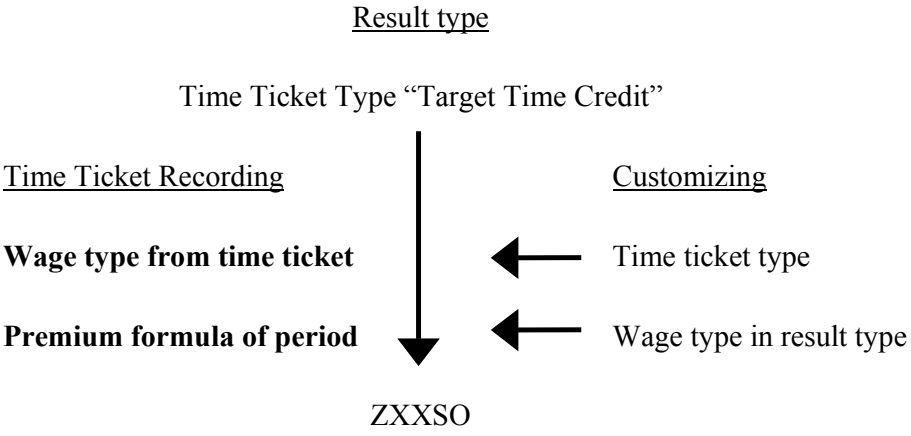
2-3-5 Now record a premium time ticket for employee 490996XX.

- Use the standard premium formula 000.

2-3-6 Check the period result in the summarizations.

- Enter your new premium formula.
- What result did the employee achieve?
- Vary the amount in the premium pool.

2-4 **SUMMARIZATIONS IN A RESULT TYPE:** Define a premium formula called "Target Time Credit" for a period.



2-4-1 Enter data for the formula.

- Enter 7*XX* as the number of the formula.

Formula Number	**Course Group/Workstation 23**
7XX	723

- The result of the formula should be expressed in hours.
- Neither warnings nor error messages should be issued.
- The formula should only be used for period results.

2-4-2 Create a result type.

- Enter the name ZXXSO for the result type.

Result Type	**Course Group/Workstation 23**
ZXXSO	Z23SO

2-4-3 Define a calculation rule for your premium formula.

- The result is the cumulated target time in hours.

2-4-4 Create cumulations for your premium formula.

- Target time credits should be recorded using wage type ML01.
- Target and actual times from the premium time tickets should be summarized in the standard fields with the same names.
- Repeat this procedure for the time ticket type that you created.
- You should also summarize the target times of a target time credit in your result type ZXXSO.

2-4-5 Now record a target time credit for employee 490996XX.

- Use the standard premium formula 000.

2-4-6 Check the period result under *Results* in time ticket maintenance.

- Enter your new premium formula *7XX*.

Formula Number	**Course Group/Workstation 23**
7XX	723

- Check the result type *Target time credit* for the days and the period.

2-4-7 Now record a premium time ticket for employee 490996XX.

- Use the standard premium formula 000.
- Enter a confirmed value and a target value.

2-4-8 Check the period result on the *Cumulations* tab page in time ticket maintenance.

- Enter your new premium formula *7XX*.

Formula Number	**Course Group/Workstation 23**
7XX	723

- Is it true that only the cumulated target time of the target time credit is displayed in the *Result* column?

Internal Use SAP Partner Only

Unit: Customizing

Menu path to access R/3 Customizing: ***Tools → Accelerated SAP → Customizing → Edit Project.***

Now click the *SAP Reference IMG* pushbutton.

You will find the IMG for Incentive Wages by expanding the nodes ***Time Management → Incentive Wages.***

2-1 Creating a Time Ticket Type

2-1-1 Define a time ticket type to use for target time credit.

- Work through the *Create Time Ticket Types* step in the *Time Ticket Types* section of the IMG for Incentive Wages.
- Choose *New entries*
- If you are in course groups 1-9, use the prefix Y followed by your single-digit course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 8**
Y*	Y8

- If you are in course groups 10-18, use the prefix Z followed by the last digit of your course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 10**
Z*	Z0
Time Ticket Type	**Course Group/Workstation 17**
Z*	Z7

- Enter this number and a text ("Target time credit," for example) in the *Time ticket type* fields.
- Make sure that the *Payroll indicator* field is empty.
- Flag the *Personnel number required* field in the *Time ticket attributes* area of the screen.
- Save your entries.
- Return to the IMG structure.

2-1-2 Assign a suitable full screen (for entering time tickets) to the time ticket type.

- Work through the *Define Entry Screens* step in the *Time Ticket Types* section of the IMG for Incentive Wages.
- Copy the information stored for screen *0101*.
- Enter *9XX1* as the number of your full screen.

Full Screen	**Course Group/Workstation 23**
9XX1	9231

- Overwrite the *Time ticket type* with your **new** time ticket type.
- Save your entries.
- Return to the IMG structure.

2-1-3 Define the following types of list screen for your new time ticket type:

- List
- List for several persons

Use the list screen types of time ticket type 01 (premium time ticket) as a copy template.

To do this, select the step entitled *Define List Screens*.

Select the list screen types defined for time ticket type 01, and click *Copy*. Confirm the messages issued by the system.

- Design your list screen as required.
  - Select one of your new list screens, and click the *Assign Fields to Time Ticket Type/List Screen Type* option in the tree structure.
  - Click *Maintain entries*.
  - In the *List fields* section of the screen, select the fields you would like to include, and then click *Choose*. You will notice that the fields you have chosen now appear in the *Selected* section.
  - If you want to change the sequence that the fields in the *Selected* section appear, select the fields in question, and then click either the *Move entry up* or *Move entry down* button.
  - Click Enter.
- Save your entries.
- Return to the IMG structure.

2-1-4 Assign a wage type to your new time ticket type.

- Work through the *Maintain Assignment of Recording Wage Types to Time Ticket Types* step in the *Time Ticket Types* section of the IMG for Incentive Wages.
- Copy the premium time ticket with the wage type ML01.
- Overwrite the time ticket type of the copy template (02) with the number of your new time ticket type.
- Flag the *Proposal* field.
- Save your entries.
- Return to the IMG structure.

2-1-5 In the step entitled *Cumulation Rules for Employees*, copy an entry for your new time ticket type.

- Select time ticket type 01 with wage type ML01 and premium formula 000 as your copy template.
- Replace the original time ticket type with your new time ticket type ("Target time credit").

Internal Use SAP Partner Only

2-1-6 In the full screen, enter a premium wage type with 4 hours of target time and 6 hours of actual time.

- Do this for employee 490996XX.
- Start time ticket recording again, so that the settings you just made in the IMG will take effect.

Field	Value	Workstation 23
Time ticket type	01	01
Labor time – actual value	6	6
Labor time – target value	4	4

- After you record the premium time tickets, the labor utilization of the period is 66.67 %.
- Now enter a target time credit of two hours.
- Enter only a target value in the time ticket – enter no other values since you are, after all, entering a credit for target time.

Remember that you applied the following naming conventions when you created your time ticket type.

- If you are in course groups 1-9, use the prefix Y followed by your single-digit course group number for the new time ticket type

Time Ticket Type	Course Group/Workstation 8
Y*	Y8

- If you are in course groups 10-18, use the prefix Z followed by the last digit of your course group number for the new time ticket type.

Time Ticket Type	Course Group/Workstation 10
Z*	Z0
Time Ticket Type	**Course Group/Workstation 17**
Z*	Z7

- After you enter the target time credit, the labor utilization rate for the period is now 100%.

2-2 Using a Step Function

2-2-1 Enter data for the formula.

- Work through the *Create Premium Formula* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Copy the first entry in the list.
- Enter the following values in the full screen:

Field	**Value**	**Workstation 23**
Number of premium formula	9XX	923
Premium formula text	Target /actual with assignment	
Use	2 in time tickets	
Start	01/01/1990	
End	12/31/9999	
Premium result	% labor utilization rate	
Error message if rate falls below	0	
Warning if rate falls below	90	
Warning if rate exceeds	110	
Error message if rate exceeds	9,999,999.99	
Target time: Error message if rate exceeds	9,999,999.99	

- Save your entries.
- Return to the IMG structure.

2-2-2 Create a step function.

- Work through the *Define Step Functions* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Click *New entries*, and enter the following values for the *Premium function 9XX* (923, for example, if you are working at workstation 23)

Start	End	Key	Value
01/01/1990	12/31/9999	000090000	000090000
01/01/1990	12/31/9999	000110000	000100000
01/01/1990	12/31/9999	999999999	000110000

- Save your entries.
- Return to the IMG structure.

2-2-3 Define a calculation rule for your premium formula.

- Work through the *Define Calculation Rules* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Click *New entries*, and enter the following values:

Formula	Calculation Rule
9XX	SOW01 RUW01 / $9XX
Workstation 23	Workstation 23
923	SOW01 RUW01 / $923

- Save your entries.
- Return to the IMG structure.

2-2-4 Now record a premium time ticket for employee 490996XX.

- Start time ticket recording again so that the settings made in the IMG will take effect.
- Now enter a premium time ticket.

Field	Value	Workstation 23
Time ticket type	01 = Premium time ticket	
Formula	9XX	923
Labor time – confirmed value	6	
Labor time – target value	8	

- Press ENTER. In the full screen for the premium time ticket, check the result of the calculation rule in the *Result* field.
- Do not change the target value for the labor time:

Field	Value
Labor time – target value	8

- Vary the confirmation value for the labor time, and then check the result each time you press ENTER.

Labor time – confirmed value	Target/Actual	Result
7	114%	110%
7.5	107%	100%
8	100%	100%
8.5	94%	100%
9	89%	90%

2-2-5 Edit the premium formula.

- Work through the *Define Calculation Rules* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Change the calculation rule:

Formula	Calculation Rule
9XX	SOW01 RUW01 / &001.050 * $9XX
Workstation 23	
923	SOW01 RUW01 / &001.050 * $923

Internal Use SAP Partner Only

2-2-6 Change the premium time ticket you have just recorded.

- Start time ticket recording again so that the settings made in the IMG will take effect.
- Do not change the target value for the labor time:

Field	Value
Labor time – target value	8

- Vary the confirmed value for the labor time, and check the result each time you press ENTER:

Labor time – confirmed value	Target/Actual	Target/Actual * 1.05	Result
7	114%	120%	110%
7.5	107%	112%	110%
8	100%	105%	100%
8.5	94%	99%	100%
9	89%	94%	100%

Internal Use SAP Partner Only

2-3 Using a Parameter

2-3-1 Enter data for the formula.

- Work through the *Create Premium Formula* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Copy the first entry in the list.
- Enter the following values in the full screen:

Field	**Value**	**Workstation 23**
Number of premium formula	8XX	823
Premium formula text	Target/actual – monthly premium	
Use	3 in period results	
Start	01/01/1990	
End	12/31/9999	
Premium result	Premium	
Error message if rate falls below	0	
Warning if rate falls below	0	
Warning if rate exceeds	9,999,999.99	
Error message if rate exceeds	9,999,999.99	
Target time: Error message if rate exceeds	9,999,999.99	

- Save your entries.

2-3-2 In the step entitled *Cumulation Rules for Employees*, copy an entry for time ticket type 01.

- Copy time ticket type 01 with wage type ML01 and premium formula 000, and then enter *8XX* in the *premium formula* field.
- In other words, overwrite the premium formula with your new premium formula *8XX*.

2-3-3 Create a parameter.

- Work through the *Create Parameter* step in the *Parameters* section of the IMG for Incentive Wages.
- Click *New entries*.

Field	**Value**	**Workstation 23**
Parameter	ZXXPR	Z23PR
Parameter long text	Monthly Premium Pool	
Parameter short text	PrPool	

- Save your entries.
- Return to the IMG structure.
- Work through the *Assign Parameters to Premium Formula* step in the *Parameters* section of the IMG for Incentive Wages.
- Click *New entries*.

Field	**Value**	**Workstation 23**
Premium formula	8XX	823
Parameter	ZXXPR	Z23PR
Value	500	
Can be overwritten	X (i.e. flag this option)	

- Save your entries.
- Return to the IMG structure.

Internal Use SAP Partner Only

2-3-4 Define the calculation rule for your premium formula.

- The premium is derived from the quotient of the target and actual values: SOW01 / RUW01.
- A premium is only distributed for the portion that exceeds 100%: (SOW01 / RUW01) - 1
- The employee receives this portion (percentage) from the monthly premium pool:
  ((SOW01 / RUW01) - 1) * ZXXPR.
- Since the premium is always converted into a percentage – in other words, multiplied by 100 – divide the premium by 100:
  ((SOW01 / RUW01) - 1) * ZXXPR / 100
- Finally, the premium must always be greater than zero. Thus, the formula is only complete with the infix notation:
  MAXIMUM
  { ((SOW01 / RUW01) - 1) * ZXXPR / 100 }
- This formula must first be converted into postfix notation, before it is entered in *Customizing*.
- Work through the *Set Calculation Rules* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Click *New entries*, and enter the following values:

Formula	**Calculation Rule**
8XX	SOW01 RUW01 / &001.000 - ZXXPR * &000.000 > &100.000 /
Workstation 23	
823	SOW01 RUW01 / &001.000 - Z23PR * &000.000 > &100.000 /

- Save your entries.
- Return to the IMG structure.

2-3-5 Enter a premium time ticket.

- Start time ticket recording again so that the settings made in the IMG will take effect.
- Now enter a premium time ticket.

Field	Value	Workstation 23
Time ticket type	01 = Premium time ticket	
Formula	000	
Labor time – confirmed value	6	
Labor time – target value	8	

- Press ENTER. In the full screen for the premium time ticket, check the result of the calculation rule in the *Result* field.

Field	Value
Result	133.333%

- This result still has nothing to do with your premium formula, because you have defined a premium formula for the period. The premium formula is only affected when period results are determined.
- However, by using standard premium formula 000, you can see at a glance that the employee's percentage from the premium pool is 33.333%.

2-3-6 Check the period result in time ticket maintenance.

- Menu path: ***Summarizations → Parameters.***

Field	Value	Workstation 23
Formula	8XX	823

- When you press ENTER, the following result appears:

Field	Value
Result	166.667 premium

- Vary the monthly premium pool. The result is updated every time you press ENTER.

Monthly Premium Pool	Result
0 USD	No premium
100 USD	33.333 USD premium
500 USD	166.667 USD premium
750 USD	250 USD premium

2-4 Cumulations in a Result Type

2-4-1 Enter data for the formula.

- Work through the *Create Premium Formula* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Copy the first entry in the list.
- Enter the following values in the full screen:

Field	**Value**	**Workstation 23**
Number of premium formula	7XX	723
Premium formula text	Target time credit	
Use	3 in period results	
Start	01/01/1990	
End	12/31/9999	
Premium result	Hours	
Error message if rate falls below	0	
Warning if rate falls below	0	
Warning if rate exceeds	9,999,999.99	
Error message if rate exceeds	9,999,999.99	
Target time: Error message if rate exceeds	9,999,999.99	

- Save your entries.
- Return to the IMG structure.

2-4-2 Create a result type.

- Work through the *Create Result Types* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Click *New entries*.

Field	Value	Workstation 23
Result type	ZXXSO	Z23SO
Result long text	Target time credit	
Result short text	TgtCred	

- Save your entries.
- Return to the IMG structure.

2-4-3 Define a calculation rule for your premium formula.

- Work through the *Set Calculation Rules* step in the *Premium Formulas* section of the IMG for Incentive Wages.
- Click *New entries*, and enter the following values:

Formula	Calculation Rule
7XX	ZXXSO &100.000 /
Workstation 23	
723	Z23SO &100.000 /

- Save your entries.
- Return to the IMG structure.

2-4-4 Create cumulations for your premium formula.

- Work through the *Specify Cumulations Rules for Employees* step in the *Cumulations* section of the IMG for Incentive Wages.
- Select the entry for time ticket 01 with wage type ML01 and formula 000.
- Copy the entry, and overwrite the original formula with your new formula.
- Select the same entry again.
- Copy the entry again, but this time overwrite the time ticket type with the time ticket type "Target time credit." Then also overwrite the original formula with your new formula.
- In the *Cumulations for target values* area of the screen, enter your result type in the *Labor time* field.
- Save your entries.
- Return to the IMG structure.

2-4-5 Enter a target time credit.

- Start time ticket recording again so that the settings made in the IMG will take effect.
- Now enter a target time credit. Use your new time ticket type to do this.

Remember that you applied the following naming conventions when you created your time ticket type.

- If you are in course groups 1-9, use the prefix Y followed by your single-digit course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 8**
Y*	Y8

- If you are in course groups 10-18, use the prefix Z followed by the last digit of your course group number for the new time ticket type

Time Ticket Type	**Course Group/Workstation 10**
Z*	Z0
Time Ticket Type	**Course Group/Workstation 17**
Z*	Z7

- Enter only a target value in the time ticket – enter no other values since you are, after all, entering a credit for target time.

2-4-6 Check the period result in time ticket maintenance.

- Proceed as described in IDES for individual incentive wages in payroll accounting.

Field	Value	Workstation 23
Formula	7XX	723

- When you press ENTER, the following result appears:

Field	Value
Result	2 hours

2-4-7 Enter a premium time ticket.

- Start time ticket recording again so that the settings made in the IMG will take effect.
- Proceed as described in the corresponding IDES script. Use the following values:

Field	Value	Workstation 23
Time ticket type	01 = Premium time ticket	
Formula	000	
Labor time – confirmed value	7	
Labor time – target value	8	

2-4-8 Check the period result on the *Cumulations* tab page in time ticket maintenance.

Field	Value	Workstation 23
Formula	7XX	723

- When you press ENTER, the following result appears:

Day	Labor Time – Confirmed Value	Labor Time – Target Value	Result
00 (Period)	7	10	2

- Note that the result should only contain target times from target time credits.
- Other time tickets, however, are cumulated in the *Labor time – target value* field.
- The premium formula of the period always shows all target times of time ticket credits as the result.

Plant Data Collection (PDC) Processes: Unit Contents

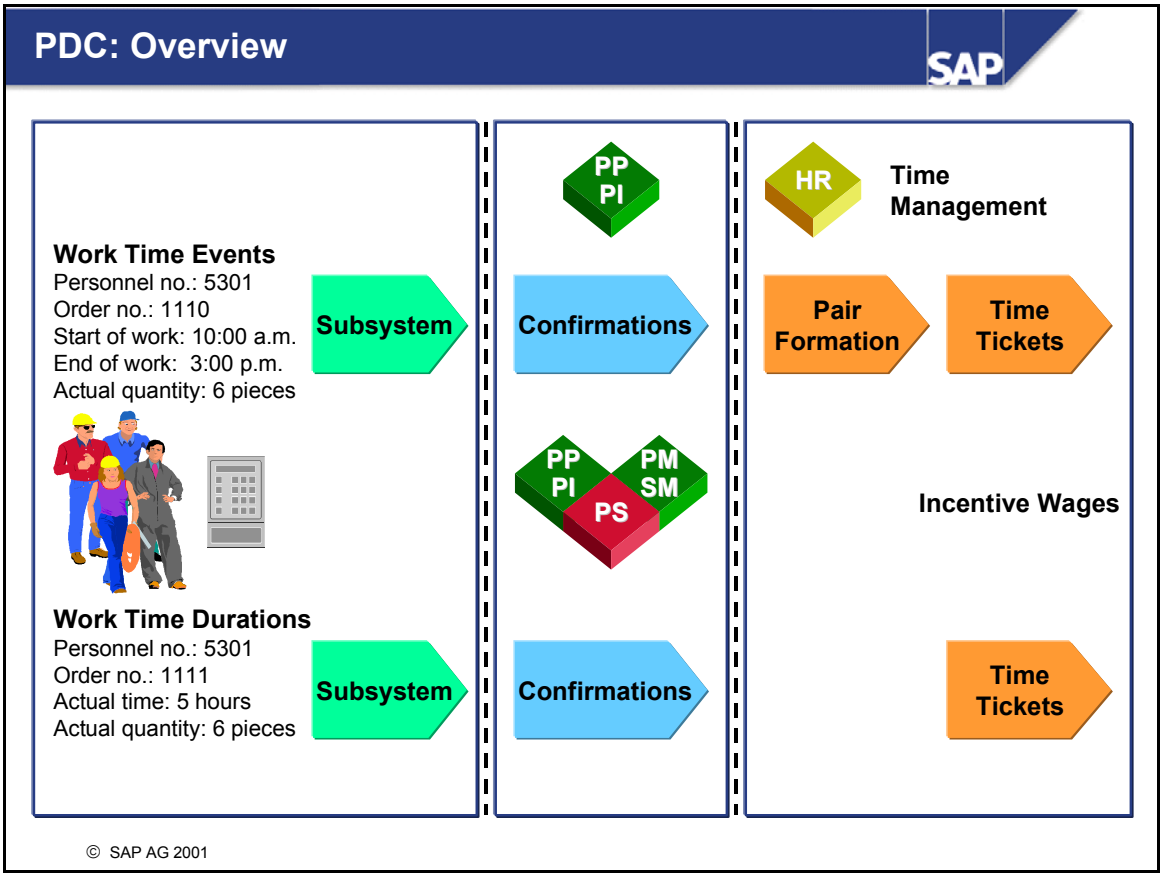
Contents:

- Concepts
- Subsystem Connection
- Transferring Work Time Events
- Transferring Work Time Durations
- Time Management Pool

PDC Processes: Unit Objectives

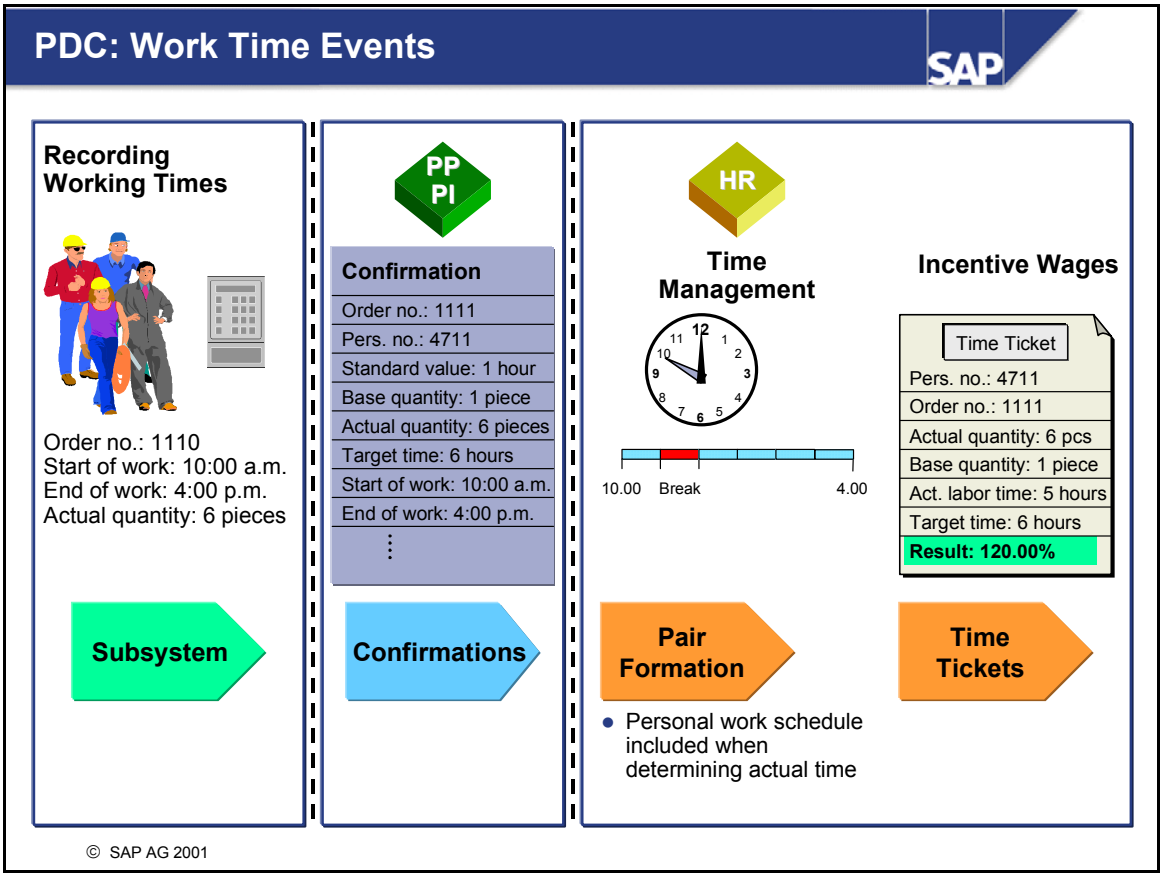
At the conclusion of this unit, you will be able to:

- **Explain the integration processes between Logistics and Incentive Wages**
- **Explain how subsystems are coupled with the R/3 System**
- **Explain how work time events are transferred**
- **Explain how work time durations are transferred**
- **Explain how you can use the Time Management Pool for error handling**

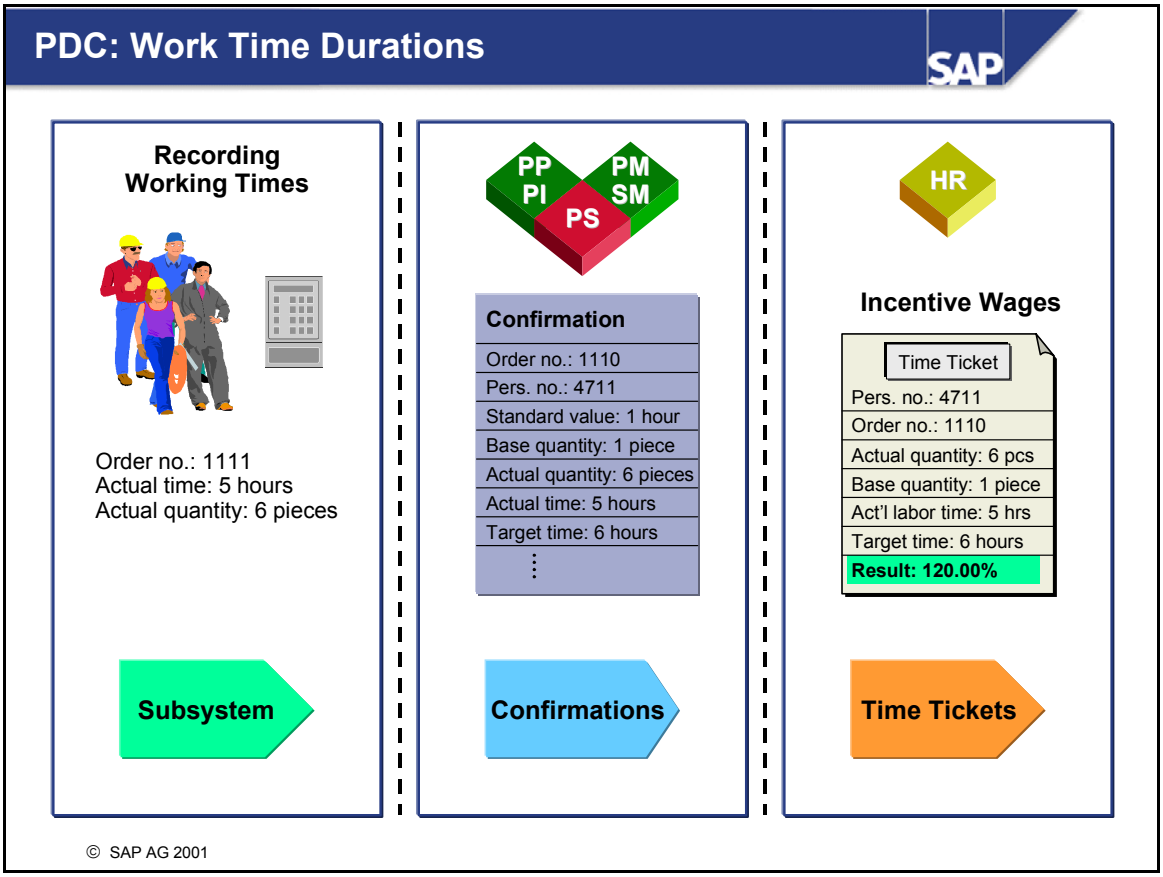


- Confirmations are usually recorded in a subsystem.
- Employee-related data gathered from Plant Data Collection (PDC) is always transferred to *Time Management* using a *Logistics* component.
- The following scenarios are possible for integrating *Time Management* or *Incentive Wages* with *Logistics*:
  - Transferring work time events using the *Production Planning and Control (PP)* and *Process Industries (PP/PI)* components
  - Transferring work time durations using the following components:
    - *Production Planning and Control (PP)* and *Process Industries (PP/PI)*
    - *Plant Maintenance* and *Service Management (PM/SM)*
    - *Project System* (PS)

Internal Use SAP Partner Only



- Employees enter both the start and end (or partial end) of work, as well as the quantity they have produced, in the subsystem.
- This data is saved as confirmations in *Logistics*.
- Payment-related employee data is transferred from *Logistics* to *Time Management.*
- First of all, pairs are formed in *Time Management*. Pair formation determines the actual times, taking into account the personal work schedule. Unpaid breaks are deducted in this process.
- After pair formation, time tickets are generated for *Incentive Wages*. You can still change time tickets manually if you have made the appropriate settings in *Customizing*.

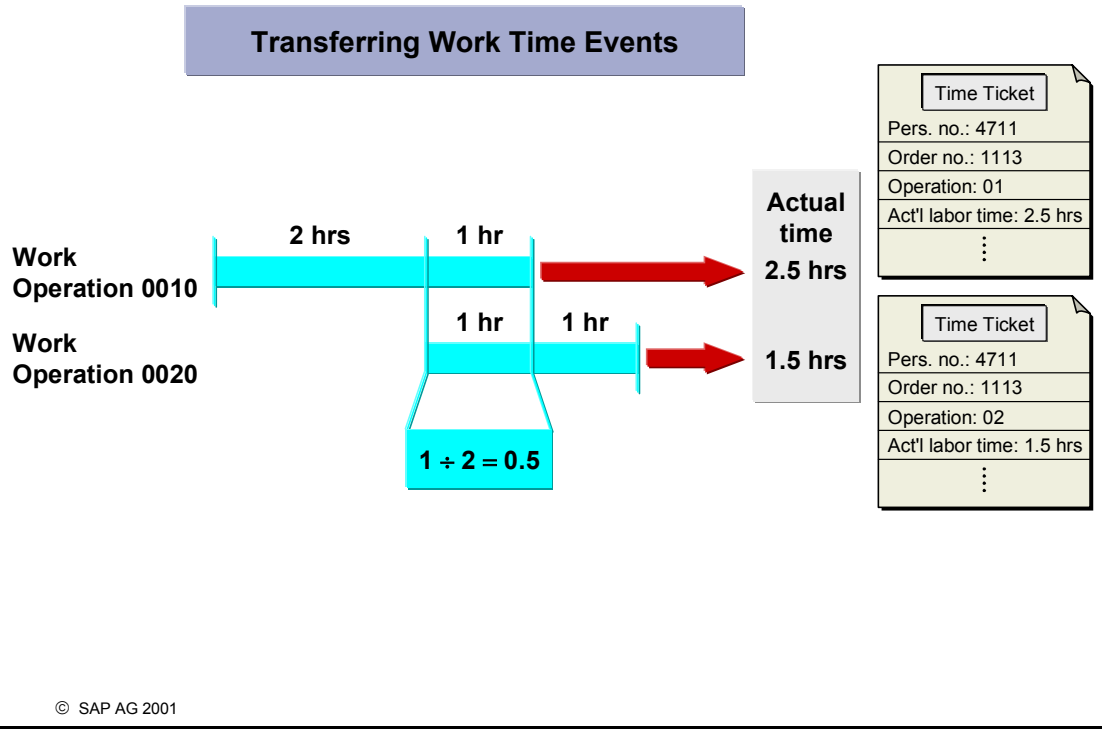


- Employees enter the time required and quantity produced at the subsystem.
- This data is also saved as confirmations in *Logistics*.
- In this scenario, data is transferred directly to *Incentive Wages*. However, you can still make corrections manually.

Internal Use SAP Partner Only

Internal Use SAP Partner Only

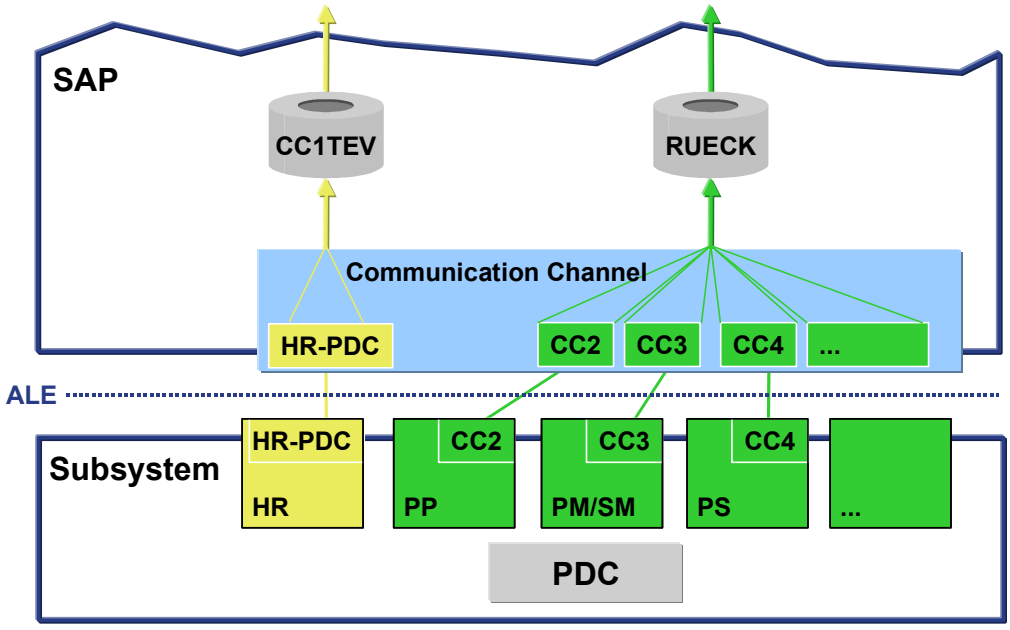
PDC: Several Machines in Operation



- When several machines are in operation, the number of overlapping hours is divided by the number of active work operations.
- For work operation 0010, the actual time is the sum of the non-overlapping 2 hours and 0.5 hours from the overlap time.
- For work operation 0020, the actual time is the sum of the non-overlapping 1 hour and 0.5 hours from the overlap time.

Internal Use SAP Partner Only

Subsystem Connection (1)



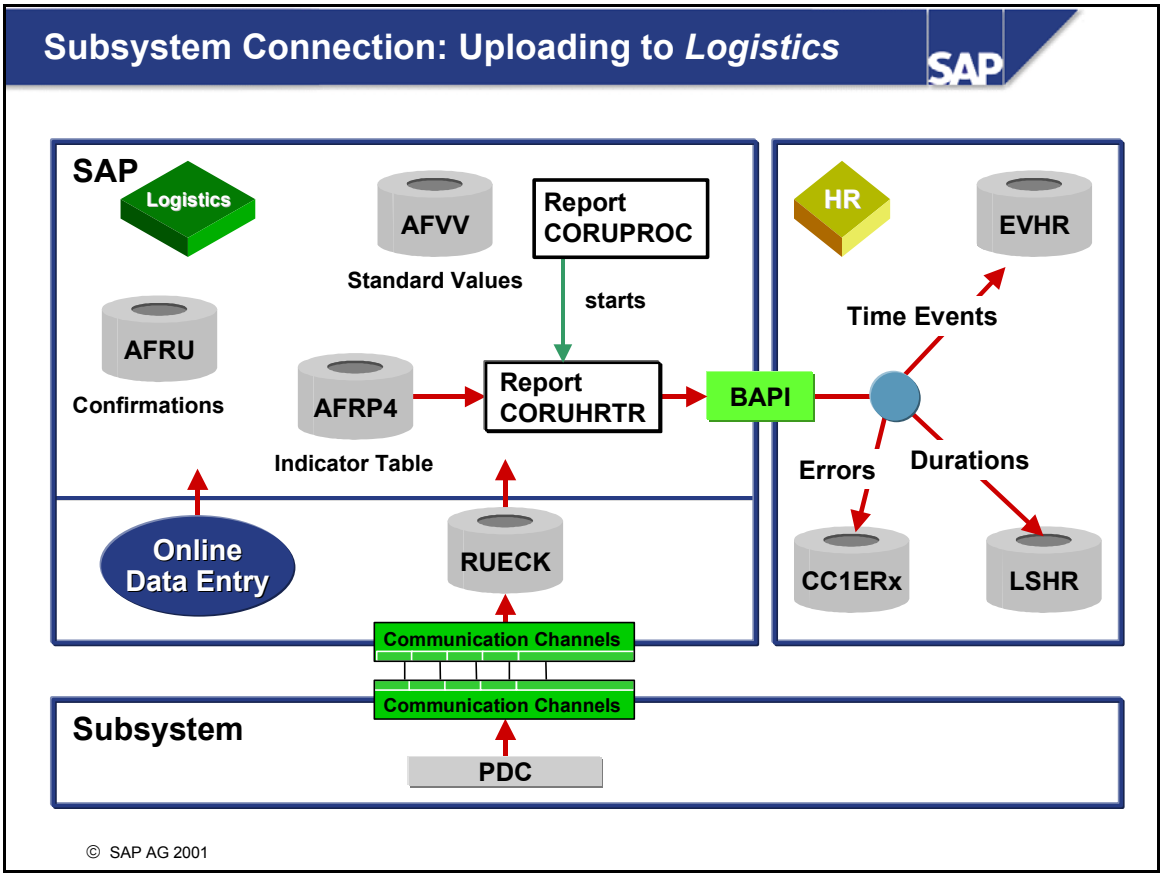
- External PDC systems can be connected to the SAP R/3 System using standard interfaces. This interface allows communication in both directions: the subsystem can access *Logistics* and *HR* data for validation; similarly, the R/3 System awaits the data records created by the subsystem in the standard SAP format of the communication channels.
- *Personnel time events* are saved in table CC1TEV in *Time Management* using the HR-PDC interface.
- *Work time events* are first saved in table RUECK using the *Logistics* communication channels (CC2 and so on), before being transferred to their respective *Logistics* components.

Subsystem Connection (2)

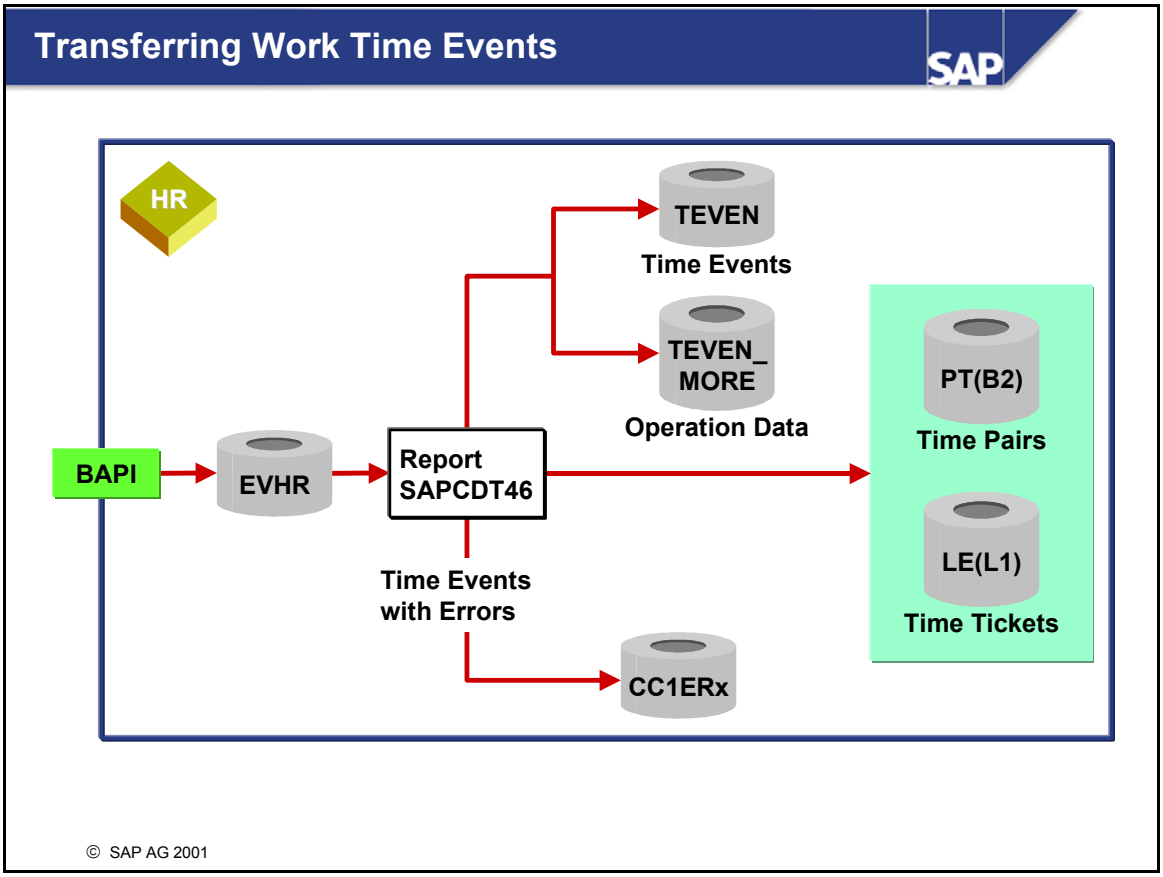
Communication Channels	Time Events	Durations
HR-PDC HR	X	-
CC2 PP	X	X
CC3 PM/SM	-	X
CC4 PS	-	X

- After validation, personnel time events from HR-PDC are stored in table TEVEN in *HR*.
- Durations are confirmed in time ticket-related messages, whereas specific time events (points in time) are confirmed in work time event-related messages.
- Work time event-related messages from CC2 are transferred to *HR* via table EVHR. This process will also be discussed again later in the course.
- Time ticket-related messages from communication channels CC2, CC3 and CC4 are transferred to *HR* via table LSHR. This process will also be discussed again later in the course.

Internal Use SAP Partner Only



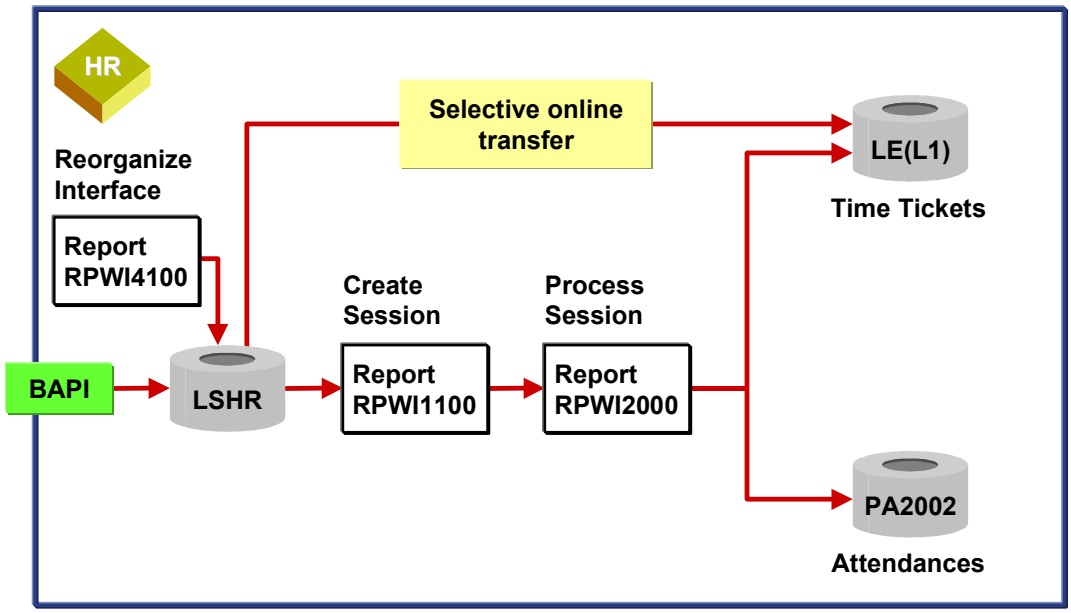
- Confirmations are saved in table AFRU in *Logistics*.
- For every confirmation relevant to *HR*, an entry is saved in the indicator table AFRP4. Confirmations are relevant to the *HR* component only if a personnel number or ID number is also entered.
- Report **CORUHRTR** reads the entries from table AFRP4 and calls up the BAPI (BAPI_CONFIRMATION_INPUT) along with relevant data from tables AFRU and AFVV.
- The BAPI transfers the data to *Time Management*.
- Time event types are also transferred by this BAPI; the data is then deposited into either table EVHR *Time Events* or table LSHR *Durations*.
- Confirmations transferred incorrectly are deposited in the CC1ERx tables. This may be the case if, for example, no time event types were transferred with the confirmations.



- Work time event processing is started in the *Time Management* component by report **SAPCDT46** (Post Work Time Events From CC2):
  - Work time events are saved in table TEVEN
  - Operation data from *Logistics* is saved in table TEVEN_MORE
  - Time events with errors are saved in table CC1ERx
  - Pair formation is carried out
  - Time tickets are generated
    - Start of work message: Time ticket opened
    - End of work (or partial end) message: Time ticket updated
  - Actual time is calculated
  - Employee's personal work schedule is taken into account
  - Time ticket is posted in *Incentive Wages*

Internal Use SAP Partner Only

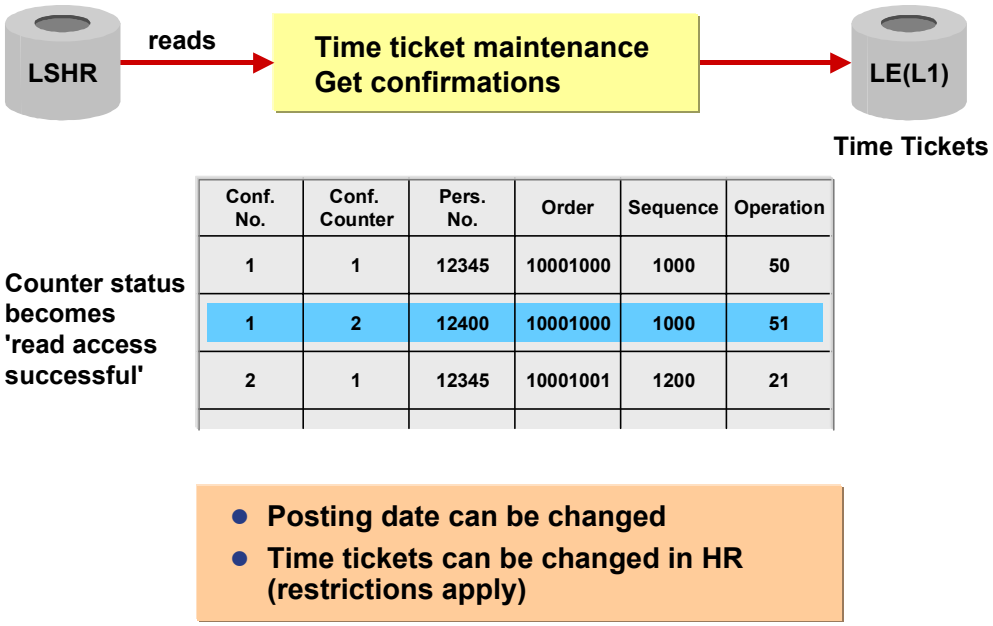
Transferring Work Time Durations



- The transferred work time durations are posted as time tickets in the *Incentive Wages* component, or generated as *Attendances* in infotype 2002.
- First, report RPWI1100 (*Logistics Integration: Read File Interface and Generate Session*) is started, followed by report RPWI2000 (*Batch Input: Processing Sessions in Batch*). This update process can be automated by scheduling the reports.
- You can also generate time tickets using the selective online option. You do this in time ticket maintenance in *Incentive Wages*.
- Periodically, you must reorganize table LSHR using report RPWI4100 (*Logistics Integration: Reorganize Interface File*)**.** To do so, schedule the report, say, daily to delete all confirmations older than 90 days.

Internal Use SAP Partner Only

Time Ticket-Related Messages: Selective Transfer to HR

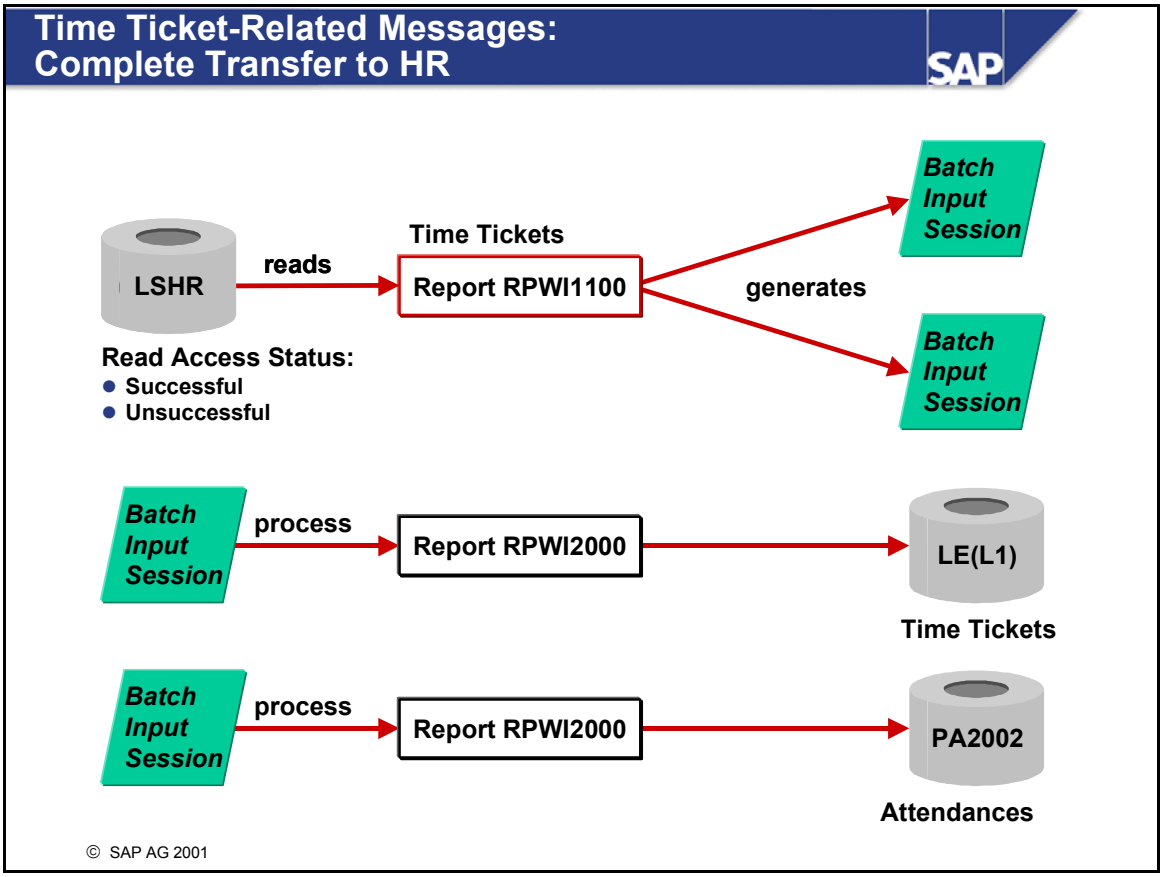


Counter status becomes 'read access successful'

Conf. No.	Conf. Counter	Pers. No.	Order	Sequence	Operation
1	1	12345	10001000	1000	50
1	2	12400	10001000	1000	51
2	1	12345	10001001	1200	21

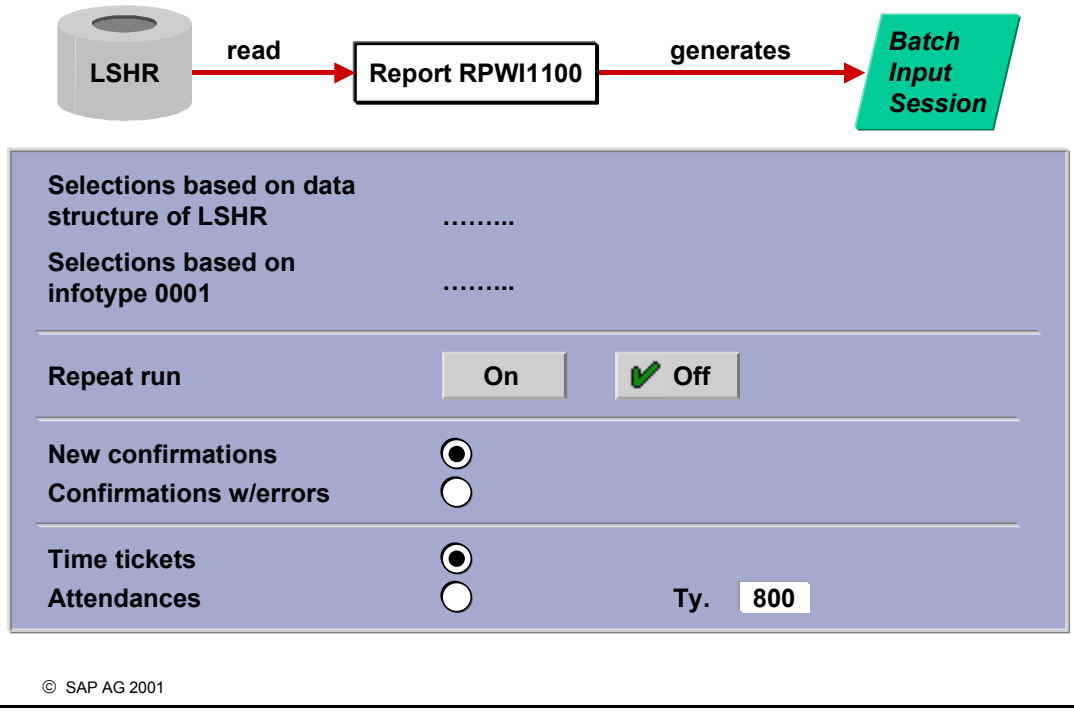
- Posting date can be changed
- Time tickets can be changed in HR (restrictions apply)

- The fact that employees can choose when to submit their time tickets means that they can influence their pay in their favor (such as in periods where a "contingency plan" might be of benefit).



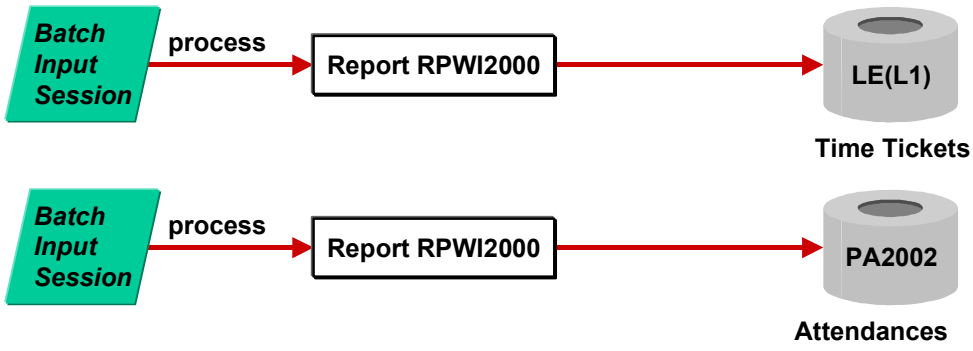
- You can schedule when batch sessions are created and processed in *Customizing*.

Time Ticket-Related Messages: Generating Batch Input Sessions



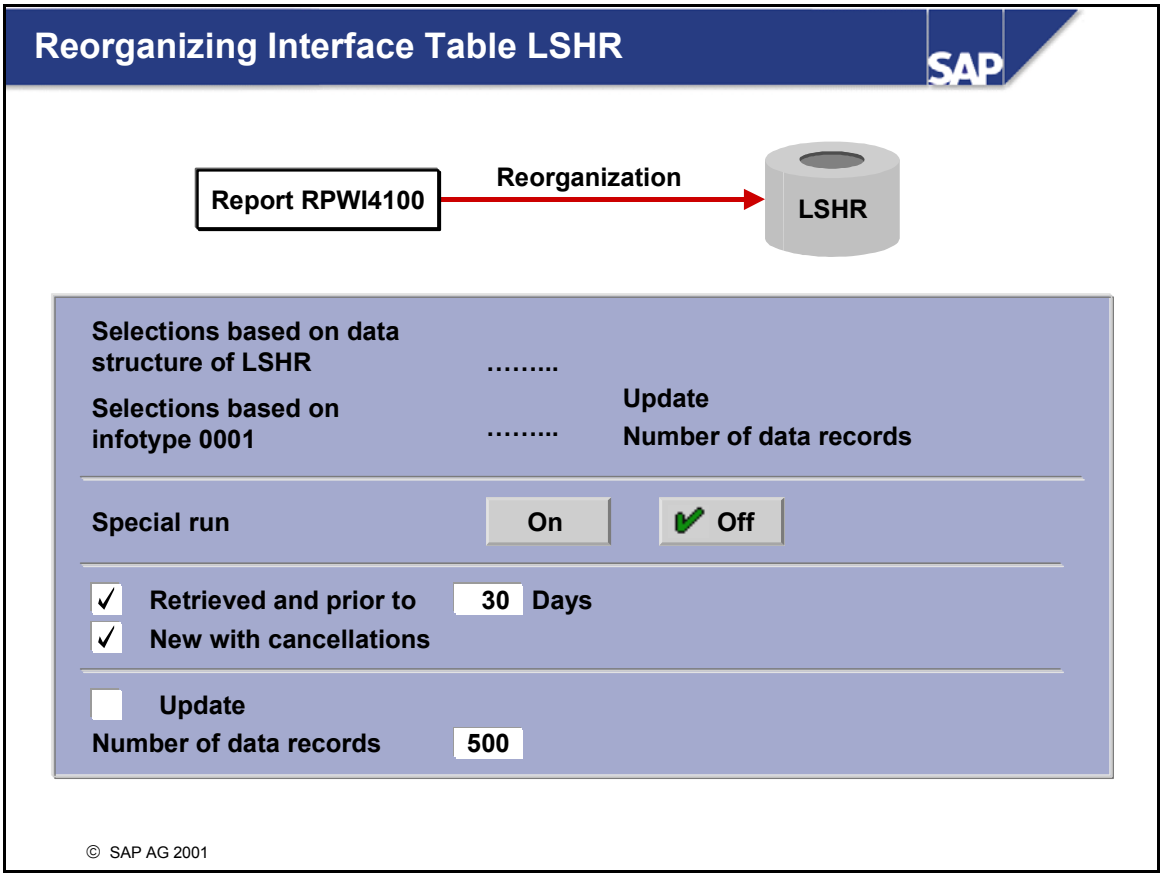
- Selection criteria are grouped first of all on the basis of the data structure in table LSHR, and then on the basis of the *Organizational Assignment* infotype (0001).
- With the *Repeat run On* option activated, successfully read confirmations can be retrieved again.
- The read confirmations are stored in the batch input session as either time tickets or attendances. You must select the posting destination accordingly.
- The value in the *Number of data records* field determines the maximum number of data records to be processed as a block. This value must always be greater than zero. The database is updated after each block is processed. One session is created per block.

Time Ticket-Related Messages: Processing Batch Input Sessions



- **Description**
  - **Process batch input session with time ticket data**
  - **Confirmations either...**
    - **Create time tickets in *Incentive Wages*, or**
    - **Store time as attendance in the *Attendances* infotype (2002)**

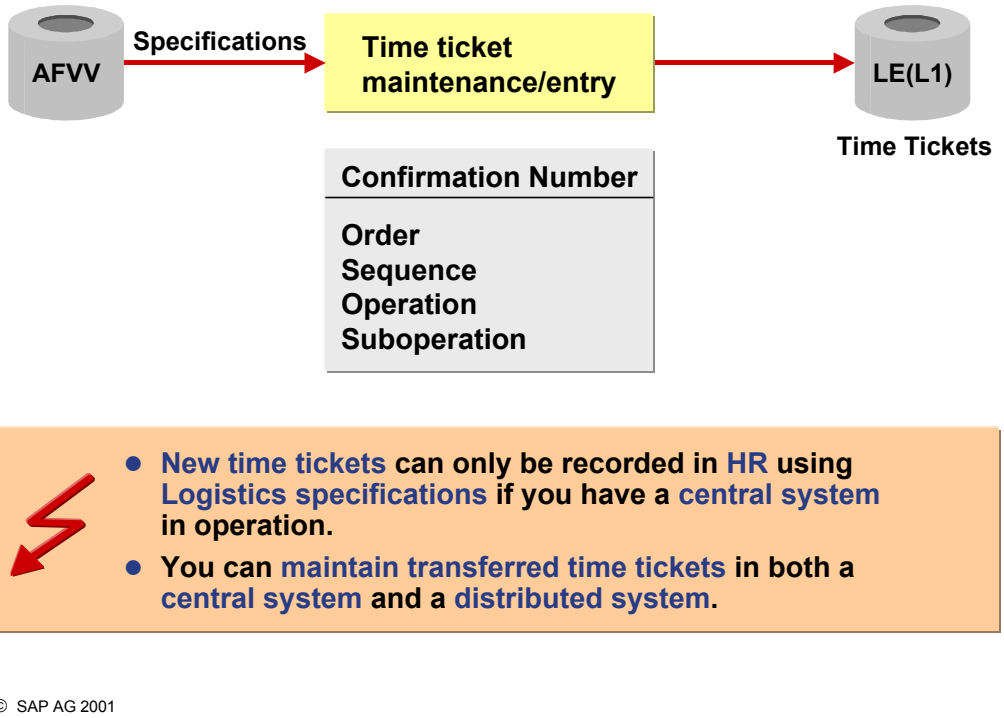
- The prerequisite for generating a time ticket or posting an attendance is that you must first choose either *Incentive Wages* or *Attendances* as the posting destination in report RPWI11000.
- Report RPWI2000 processes the batch input session created by RPWI1100. This report is a version of the SAP *Basis* reports RSBDCSUB/SAPMSBDC that was modified specially for HR purposes - all it does is supply the important parameters required by HR. Consequently, you can also start the original *Basis* report to get the same result.
- The *Time Management pool* transaction detects any errors that may have occurred when a batch input session was processed. You can use the *Time Management pool* to locate these errors and correct them if necessary. The pool itself will be discussed later in this unit.



- Selection criteria are grouped first of all on the basis of the data structure in table LSHR, and then on the basis of the *Organizational Assignment* infotype (0001).
- With the *Special run Off* option activated, you can delete the following groups of confirmations from the interface table:
  - Confirmations retrieved without cancellations
  - Confirmations to be retrieved with cancellations
- With the *Special run On* option activated, you can delete the following groups of confirmations from the interface table:
  - Incorrect confirmations without cancellations
  - Incorrect confirmations with cancellations
  - Confirmations retrieved, with cancellations
  - Cancellations without original
- If you want to reorganize the interface table, choose *Update*. Otherwise, the report is only executed for testing purposes.
- In the *Number of data records* field, enter the number of data records to be processed as a block. The database is updated after each block is processed.

Internal Use SAP Partner Only

Time Ticket-Related Messages: Recording Data in HR with *Logistics* Specifications



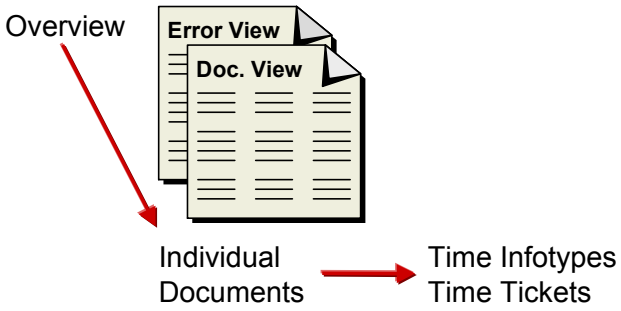
- Time tickets can be recorded in the *Incentive Wages* component using standard values (specifications) from *Logistics*. These time tickets are only available in *HR*. *Logistics* does not have access to this data.
- You can access standard values (specifications) using either the *Confirmation number* or by entering the *Order*, *Sequence, Operation*, and, if necessary, the *Suboperation*.

Time Management Pool: Error Handling

- **Interactively...**
  - **Processes errors that occur when time tickets are transferred to *Incentive Wages* (batch input sessions)**

    Time Management Pool → Batch Input Tools
  - **Processes errors logged during *Time Evaluation***

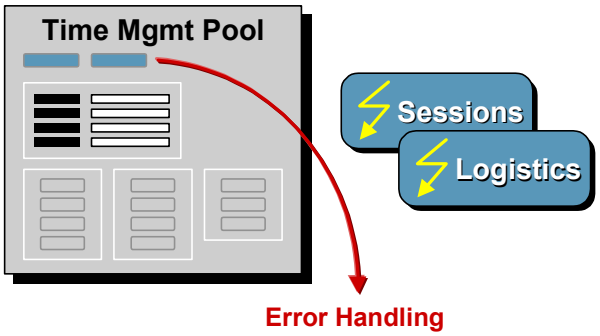
    Time Management Pool → Error Handling Report



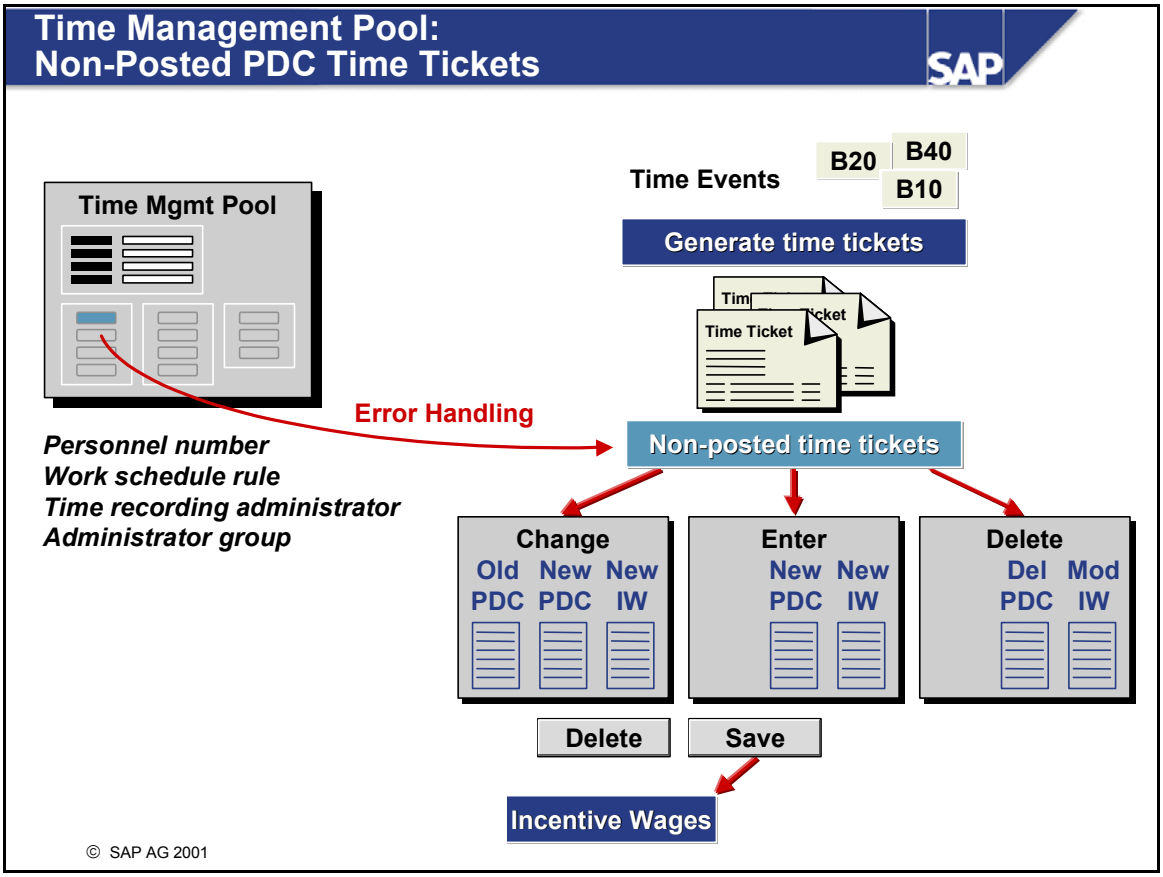
- The *Time Management pool* transaction provides an error handling function to process any errors that occurred when time tickets were generated. First, a list showing all errors is displayed. You can select a line to go directly to the document view showing the errors that occurred for that day, as well as the individual time documents. If you select a document, the corresponding maintenance transaction is started and the document can be changed. When you save the data, you return to the error handling function. The document view is updated immediately.
- Incorrect time tickets displayed in the document view can be selected for processing.
- Error handling is explained in greater detail in course *HR310: Time Evaluation*.

Time Management Pool: Batch Input Errors

- **Confirmations with errors from *Logistics***
  - **Renewed attempt to create batch input session**
- **Batch input sessions with errors**
  - **Session is processed and corrected in foreground**



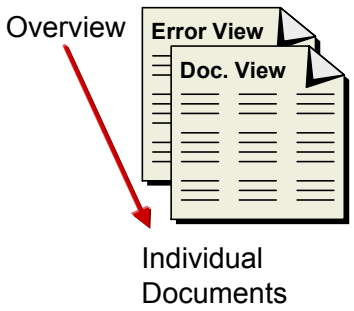
- The *Sessions* and *Logistics* pushbuttons only appear if errors occurred in these areas.
- An error can occur during batch input session processing if, for example, the labor utilization rate calculated in *Incentive Wages* is too low.



- Employee selection in the *Time Management pool*:
  - *Standard setting:*
    From the user parameters 'Time recording administrator' (SAZ) and 'Administrator group' (SGR)
  - *Substituting a colleague:*
    Use their administrator ID
  - *Selection by work schedule rule:*
    Are you only interested in the early shift at present?
  - *Selecting a specific employee*:
    Enter the employee's personnel number - the other selection criteria are ignored

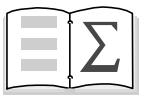
Time Management Pool: Error Handling

- **From the *Time Management* menu**
  - **Handles errors from the *Time Management* pool**
  - **Administrator 001 and administrator group 1000**
- **By selecting lines**
  - **Error view: Employee 1215**
  - **Document view: Premium time ticket from interface file**
- **By entering transaction**
  - **Correct and save non-posted time tickets**



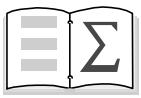
- The document view is updated immediately if changes are made to documents (from the error handling function).
- An employee's assignment to an administrator can be determined in the *Organizational Assignment* infotype (0001).
- *Time Evaluation* can be customized in such a way that it transfers time tickets to *Incentive Wages* (see *Define Settings for Pair Formation* in the Implementation Guide (IMG) for *Personnel Time Management*). If time evaluation is run for an employee while time tickets are being recorded for that same employee, time evaluation is terminated, and an error message issued. The time ticket due for transfer is, however, stored in an interface file, and can be transferred manually using the error handling function. (Generally speaking, though, this should not be necessary since time evaluation is scheduled periodically anyway.)

PDC Processes: Unit Summary (1)



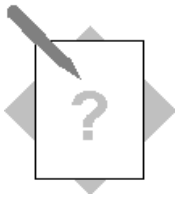
- Confirmations can be recorded as wage confirmation slips in *Logistics* or at a subsystem, and then stored as time tickets in *Incentive Wages*.
- You can also record work time events. After work time events are transferred to *HR,* pairs are formed and then time tickets are generated.
- *Logistics* confirmations can be transferred manually or automatically to *Incentive Wages*.
- You can enter time tickets in *Incentive Wages* using *Logistics* specifications.

PDC Processes: Unit Summary (2)



- Confirmations can be transferred to *HR* even if *Logistics* and *HR* are located in different systems.
- The central interface files between *Logistics*, the subsystem, and *HR* are LSHR and EVHR. The BAPI *BAPI_CONFIRMATION_INPUT* enables this process.
- The *Time Management* pool is used for handling errors that occur when confirmations are posted to *Incentive Wages*.

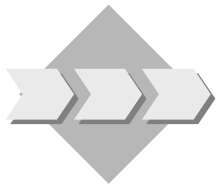
Exercises



Unit: Plant Data Collection (PDC) Processes

At the end of these exercises, you will be able to:

- Transfer confirmations from *Logistics* to *Incentive Wages*, and maintain the time tickets that are thus generated



You work in the payroll department of a manufacturing company. One of your jobs is to record incentive wage data for employees in your company's IT system.

First of all, you transfer the time tickets entered in *Logistics* to *Incentive Wages*. Once you have done this, you can maintain the time tickets in *Incentive Wages*.

Use the following personnel numbers in the exercises:

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490997	490997XX	49099707	49099723

First of all, you need to enter a production order – this will be the production order that you then confirm.

3-1 Go into the Logistics system by choosing the menu path ***Logistics → Production → Production Control → Order → Create → With Material***

3-1-1 Enter the following data on the initial screen that appears:

Material: P-103
Production plant: 1000
Order type: PP01

3-1-2 Enter the following data on the *General* tab page:

Total quantity: 1
Basic dates: A date at least 4 days into the future
Scheduling type: Backwards

Confirm your entries!

Internal Use SAP Partner Only

3-1-3 In the dialog box that appears, select the entry for the planning group with group counter 3. In the *Alternative sequence* dialog box that appears, click *No*.

3-1-4 Menu path: ***Functions → Release.***

3-1-5 Save your entries. The number of your order is displayed in the message bar at the bottom of the screen. **Make a note of this order number** since you will need it later when you transfer data to *Incentive Wages*.

3-2 Now enter a confirmation for the order you have just created. Do this by choosing ***Logistics → Production → Production Control → Confirmation → Enter → For Operation → Time Ticket***

3-2-1 Enter the following data:

Order:	Your order number
Operation/activity:	10
Yield:	1

Press *Enter*. You should notice that the setup time, etc. are now displayed instead of the texts *Activity 1* through *Activity 6*. These texts are only updated when you press *Enter* because the names of the activities in question depend on the work center. The work center data, in turn, depends on the order data.

Confirmation type:	Partial confirmation
Setup time:	30 minutes
Personnel number:	490997XX

3-3 Now transfer data from Logistics to HR. Do this by choosing ***Logistics → Production → Production Control → Confirmation → Predefined Processes.***

3-3-1 Enter your order number, and flag the *HR data transfer* checkbox. Now click  .

3-3-2 Select your order number, and click the *HR data transfer* pushbutton. The data is transferred as soon as you click the *HR data transfer* pushbutton. You do not need to save your data for this process to occur.

3-4 Now go to *Incentive Wages*, and get the confirmation. Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Maintain.***

Please note that the system will issue an error message telling you that the time ticket contains errors. This is because you still have to enter premium formula 100 (Target/Actual with Setup Times) in the time ticket. Do this now by clicking  in the dialog box.

Internal Use SAP Partner Only

Unit: Plant Data Collection (PDC) Processes

Use the following personnel numbers in the exercises:

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490997	490997XX	49099707	49099723

First of all, you need to enter a production order – this will be the production order that you then confirm.

3-1 Go into the Logistics system by choosing the menu path ***Logistics → Production → Production Control → Order → Create → With Material***

3-1-1 Enter the following data on the initial screen that appears:

Material: P-103
Production plant: 1000
Order type: PP01

3-1-2 Enter the following data on the *General* tab page:

Total quantity: 1
Basic dates: A date at least 4 days into the future
Scheduling type: Backwards

Press *Enter*.

3-1-3 In the dialog box that appears, select the entry for the planning group with group counter 3. In the *Alternative sequence* dialog box that appears, click *No*.

3-1-4 Menu path: ***Functions → Release.***

3-1-5 Save your entries. The number of your order is displayed in the message bar at the bottom of the screen. Make a note of this order number since you will need it later when you transfer data to *Incentive Wages*.

3-2 Now enter a confirmation for the order you have just created. Do this by choosing ***Logistics → Production → Production Control → Confirmation → Enter → For Operation → Time Ticket***

3-2-1 Enter the following data:

Order:	Your order number
Operation/activity:	10
Yield:	1

Press *Enter*. You should notice that the setup time, etc. are now displayed instead of the texts *Activity 1* through *Activity 6*. These texts are only updated when you press *Enter* because the names of the activities in question depend on the work center. The work center data, in turn, depends on the order data.

Confirmation type:	Partial confirmation
Setup time:	30 minutes
Personnel number:	490997XX

3-3 Now transfer data from Logistics to HR. Do this by choosing ***Logistics → Production → Production Control → Confirmation → Predefined Processes.***

3-3-1 Enter your order number, and flag the *HR data transfer* checkbox. Now click .

3-3-2 Select your order number, and click the *HR data transfer* pushbutton. The data is transferred as soon as you click the *HR data transfer* pushbutton. You do not need to save your data for this process to occur.

Internal Use SAP Partner Only

3-4 Now go to *Incentive Wages*, and get the confirmation. Menu path: ***Human Resources → Time Management → Incentive Wages → Time tickets → Maintain.***

Click  .

Enter your order number in the dialog box that appears.

Click  .

Select the confirmation you wish to retrieve by flagging the checkbox to the left of it. Now click  .

Please note that the system has issued an error message. You can correct this error by proceeding as follows:

Select your confirmation by flagging the checkbox to the left of it. Now click  .

On the full screen that appears, enter premium formula 100, and then click  .

Confirm the message issued by the system by clicking  .

You will see that the labor utilization rate for the time ticket is now 100%.

You are now back on the selection screen for retrieving confirmations (*Maintain All Time Tickets*).

Click  .

You have now created a time ticket in *Incentive Wages* from the *Logistics* confirmation.

Internal Use SAP Partner Only

Plant Data Collection (PDC) Customizing

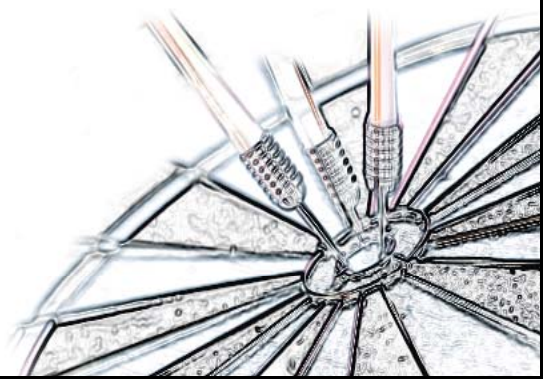
Contents:

- General Settings
  - Settings for *HR*
  - Settings for *Logistics*
- Confirmations as Work Time Events
- Confirmations as Work Time Durations
  - Transferring confirmations to attendances
  - Transferring confirmations to *Incentive Wages*
- Special Settings for *Incentive Wages*
- PDC in Distributed Systems

PDC Customizing: Unit Objectives

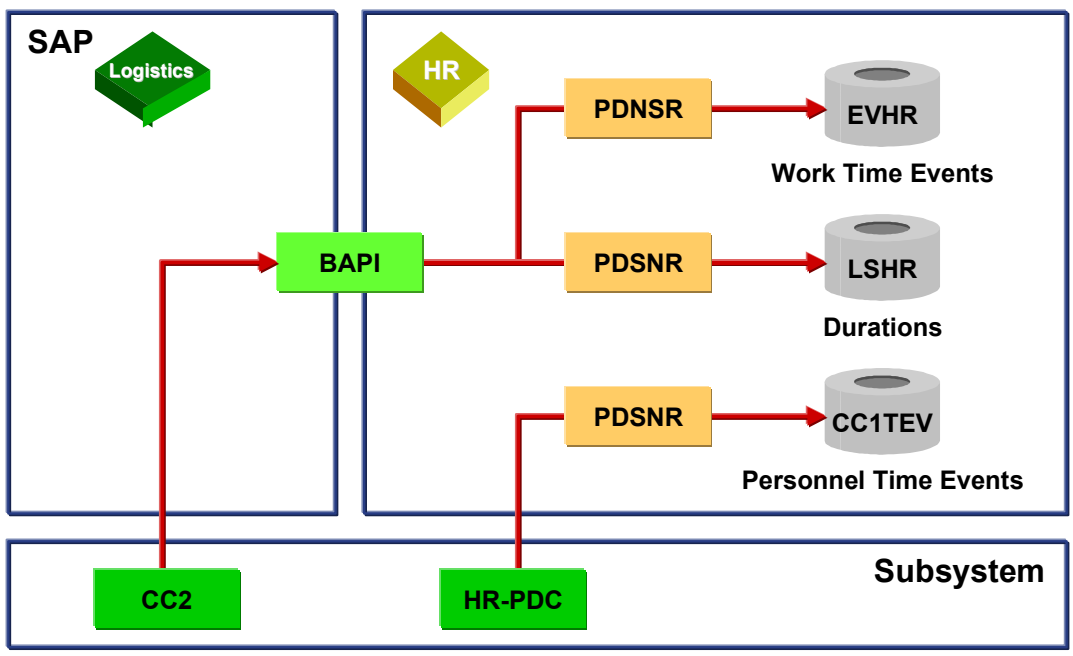
At the conclusion of this unit, you will be able to:

- **Understand the Customizing settings required for transferring confirmations from *Logistics* to *Time Management***



Internal Use SAP Partner Only

General Settings: Create Number Range for Time Events



- Every *Logistics* confirmation and personnel time event is assigned a unique number, called the *Plant Data Sequence Number* (PDSNR).
- The confirmations and time events are stored under this PDSNR in the appropriate tables. This ensures that the system can always access the correct data.
- The PDSNR is also transferred to all subsequent tables.
- **Never include number range objects in transport orders!**
- Ensure that number range 01 is created with interval 01, and that the number is assigned internally.

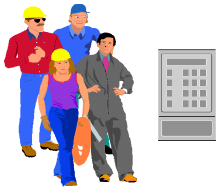
General Settings: Determine Work Time Event Types

Employee Group 1

Record types allowed at time recording terminal:

- **Clock-in/Clock-out**

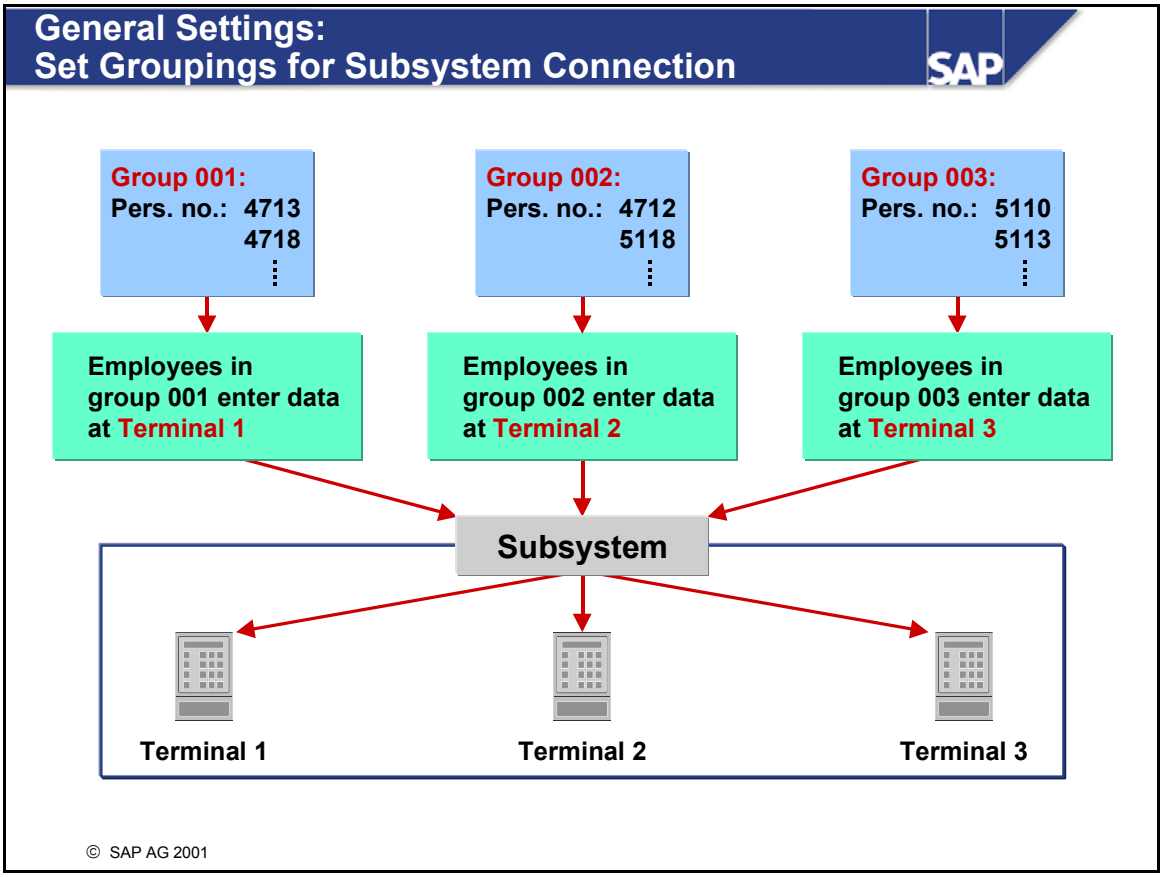
Employee Group 2



Record types allowed at time recording terminal:

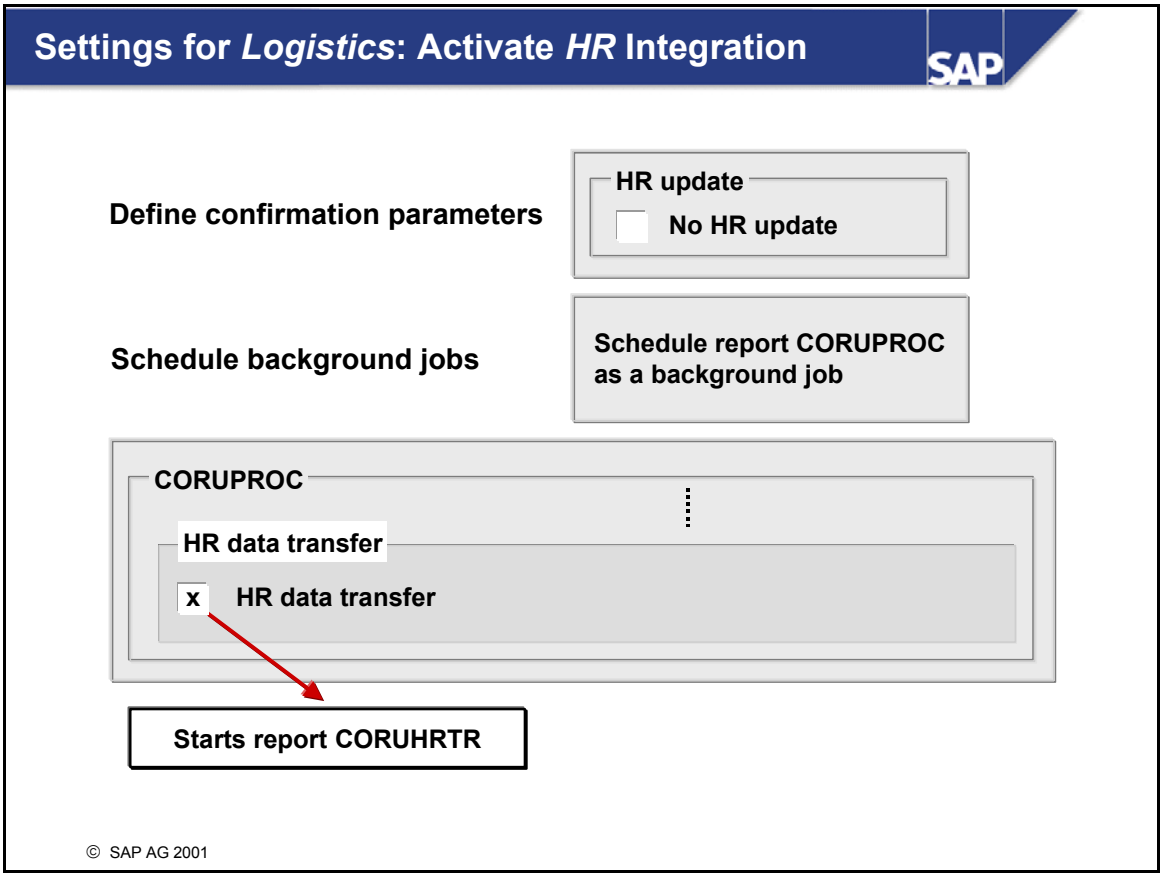
- **Clock-in/Clock-out**
- **Start of order/ End of order**

- You must define a separate time event type group for every employee group.
- Assign the permitted record types to every time event type group.



- You can use the subsystem connection grouping to group together objects due for transfer. In this way, you enable a targeted distribution of the data to the subsystems where the data is to be held available for further checks.

Internal Use SAP Partner Only



- If you wish to transfer data from *Logistics* to *Time Management*, make sure that the *No HR update* indicator is switched off (i.e. this checkbox is left blank).
- In the IMG, choose *Production -> Shop Floor Control -> Operations -> Confirmation -> Define Confirmation Parameters*.
- To enable the transfer of data to *Human Resources*, choose *HR Data Transfer* in report **CORUPROC Confirmation, Collective Processing, Background Processing Process Chain**. This means that report **CORUHRTR Transfer Confirmation Data to HR** (the report that actually transfers the data) will then be started.

Settings for *Logistics*: Maintain Standard Value Keys

- **Only *Production Planning* (PP) confirmations**
- **Defined in transaction for maintaining work center basic data**

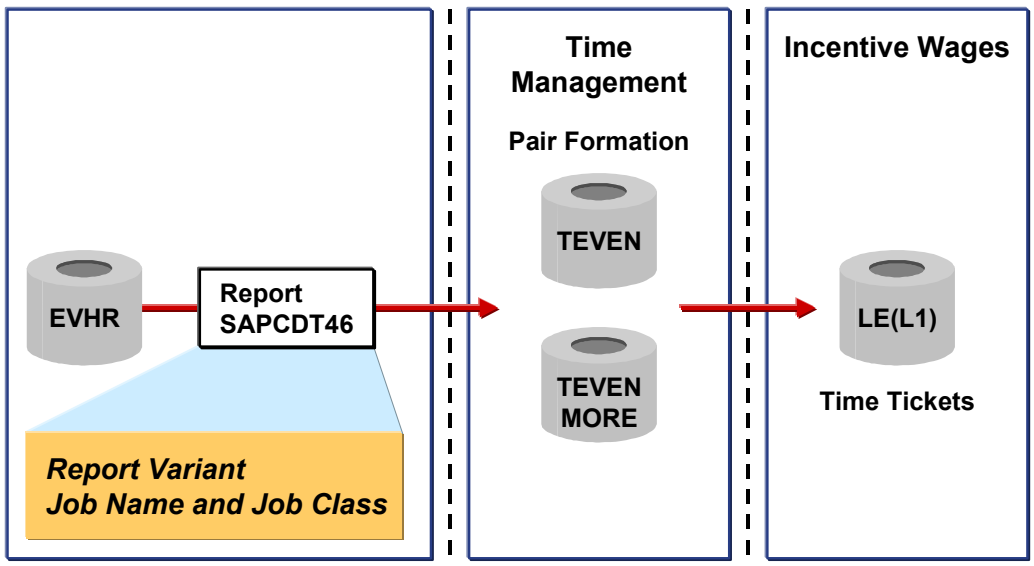
Standard value key	Parameter		Incentive Wages indicator	
SAP1	SAP_01	Setup time	2	Setup time
	SAP_02	Machine time	3	Machine time
	SAP_03	Labor time	1	Labor time

Incentive Wages Indicators	
1	Labor time
2	Setup time
3	Machine time
4	Variable activity type
5	Teardown
6	Not used at present

- You must assign the user-definable *Logistics* activity categories to the fixed, predefined activity categories in *Incentive Wages*.
- This mechanism is only available for *PP* confirmations. With *PM/SM/PS* confirmations, the working time is always transferred to labor time.
- Menu path: *Logistics -> Production -> Master Data -> Work Centers -> Work Center -> Change -> Costing* tab page

Internal Use SAP Partner Only

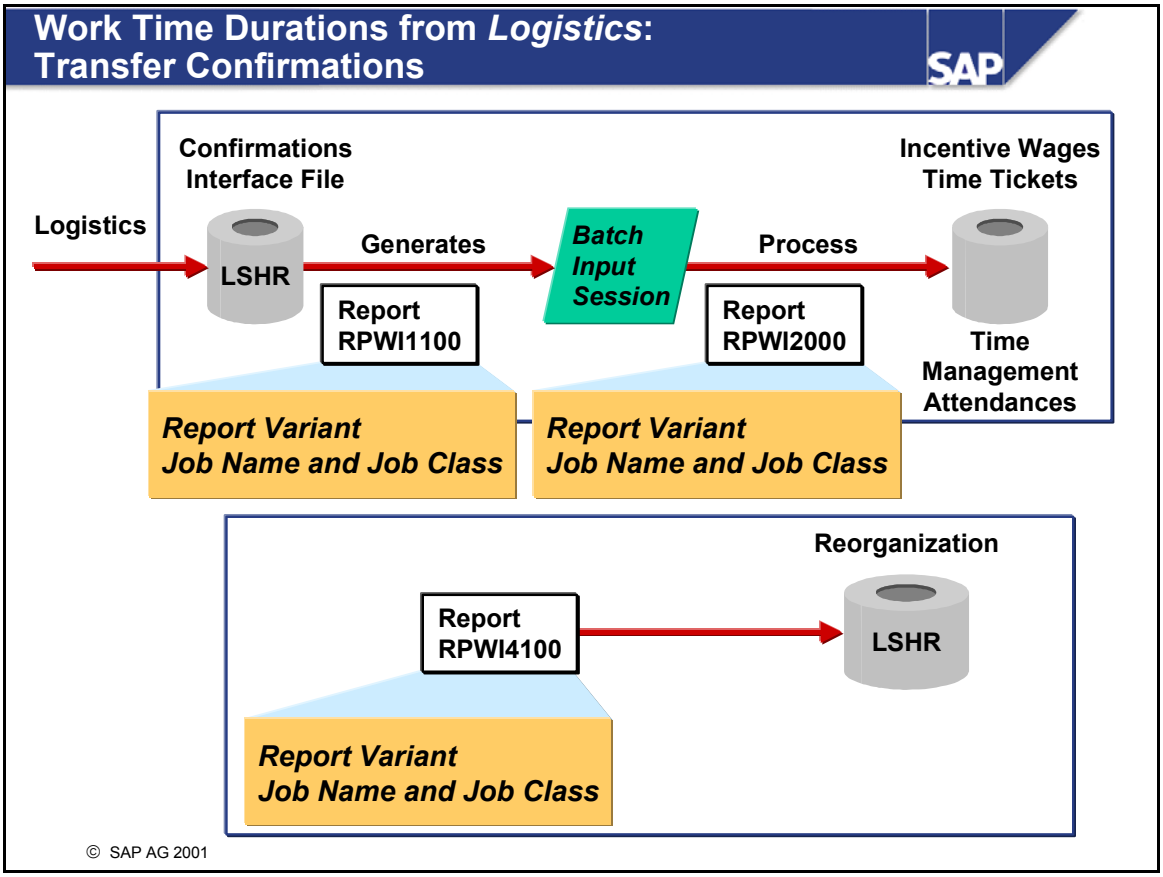
Work Time Events from *Logistics*: Schedule Posting



- If you want time tickets to be generated automatically, schedule **report SAPCDT46 Posting Time Events From CC2**.
- Proceed as follows:
  - Define the parameters to be used for starting **SAPCDT46**. Then create a suitable variant for the report.
  - Define a job to start **SAPCDT46**. Choose a name and class for the job and then, in the *Variant* field, enter the name of the variant you created.

Work Time Events from *Logistics*: Process Work Time Events

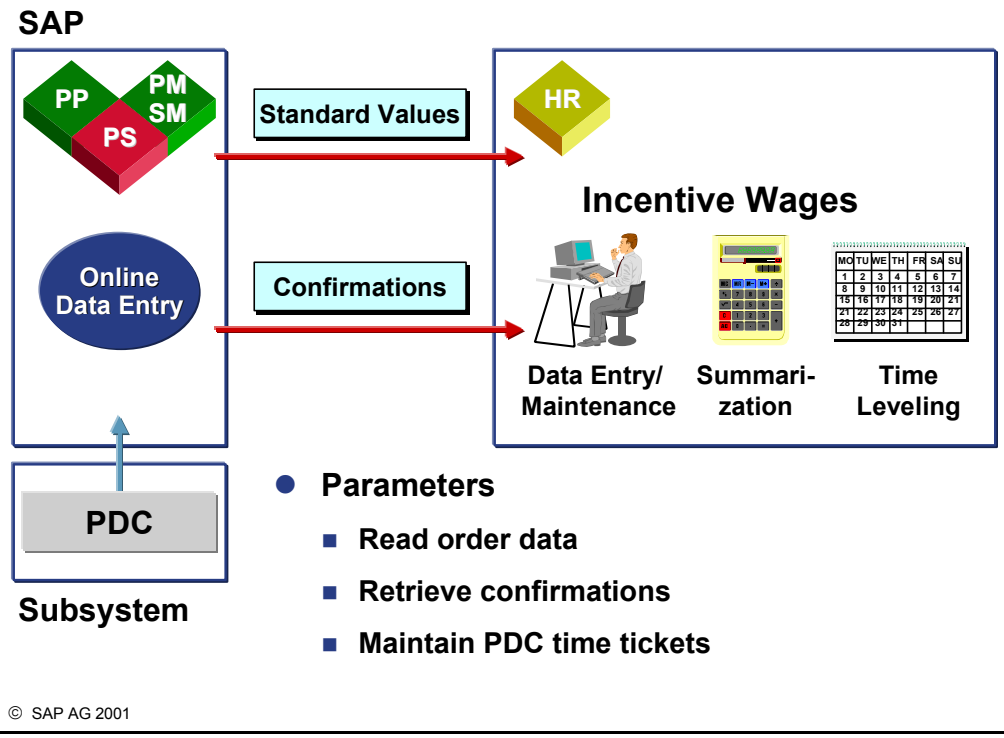
- **Pair Formation Settings: Processing Status G01**
  - **Determine whether and when PDC time tickets should be transferred to *Incentive Wages***
    - **Reaction: " " = Time tickets are not posted to *Incentive Wages***
    - **Reaction: 1 = Time tickets are only posted to *Incentive Wages* during time evaluation**
    - **Reaction: 2 = Time tickets are posted to *Incentive Wages* with each upload and during time evaluation**



- **Proceed as follows:**
  - Define the parameters to be used for starting report **RPWI1100**, which generates a session for retrieving confirmations. Then create a suitable variant for the report.
  - Define a job to start **RPWI1100** (i.e. to generate the session). Choose a suitable name and class for the job and then, in the *Variant* field, enter the name of the variant you created.
  - Define the parameters to be used for starting **RPWI2000** (the report that processes the session). Then create a suitable variant for this report also.
  - Define a job to start **RPWI2000** (i.e. to process the session). Follow the same procedure as above to do this.
- If you need to regularly reorganize the interface, schedule report **RPWI4100** (Logistics Integration: Reorganize Interface File). Proceed in exactly the same way as for report RPWI1100.

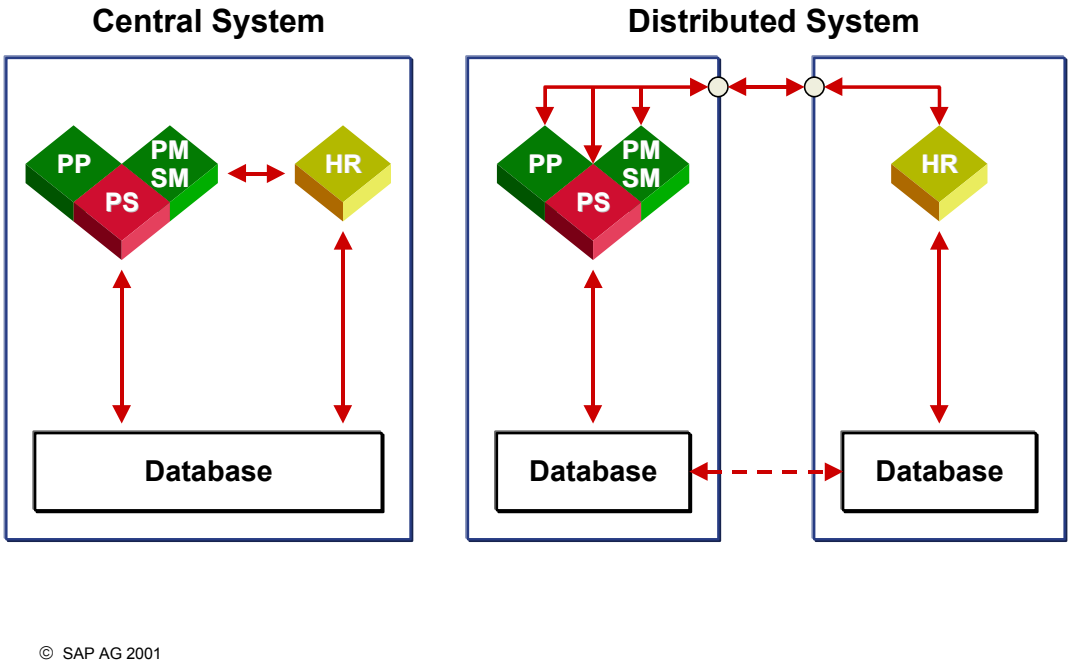
Internal Use SAP Partner Only

Special Settings for *Incentive Wages*: Defining Integration Parameters

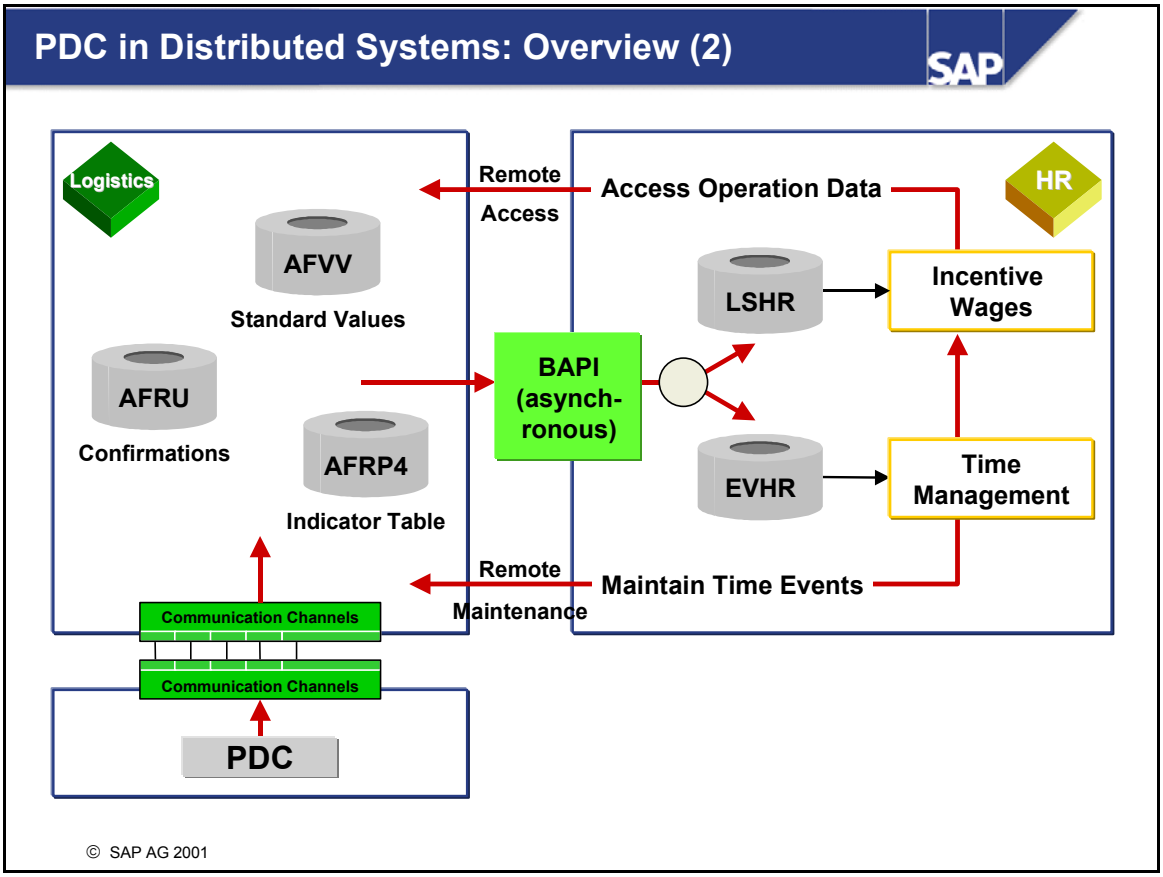


- If the *Read order data* option is activated, the order operation data is read when time tickets are recorded and the data is entered in the time ticket. Of course, this only happens if a *Logistics* order is accessed when the time ticket is recorded (using a confirmation number, for example).
- If you want confirmations to be retrieved from *Logistics (PM/PP/PS),* you must activate the *Retrieve confirmations* option. You must, however, actually retrieve confirmations in a separate step.
- If you want to be able to maintain the time tickets transferred from *Logistics*, you must activate the *Maintain PDC time tickets* option.

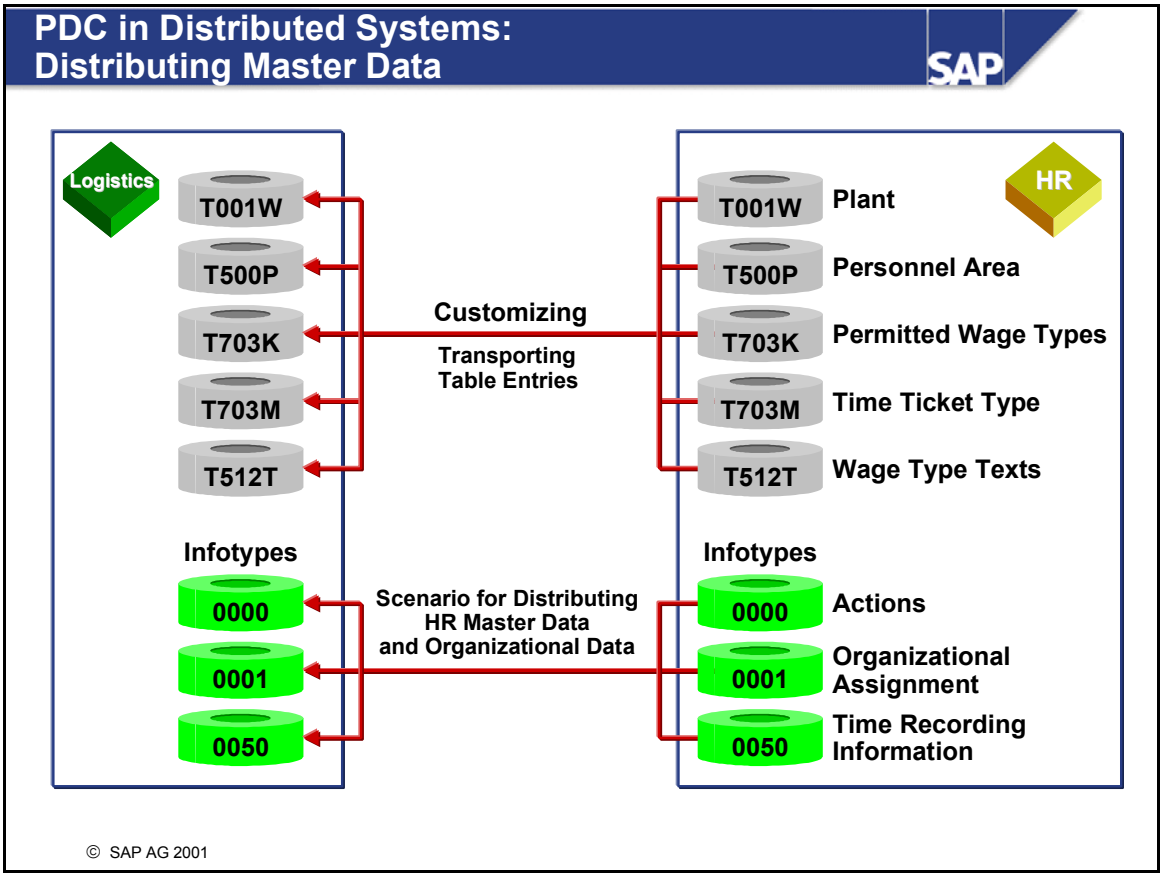
PDC in Distributed Systems: Overview (1)



- In a central system, all components use the same database.
- In a distributed system (decoupled *HR*), *HR* uses its own database.



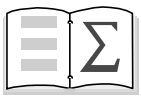
- Confirmation data is transferred from *Logistics* using the *TimeMgtConfirmation* business object. The name of the source system is transferred along with the data.
- If you still have to make changes to time tickets in *Incentive Wages*, the specification data provided by *Logistics* may have to be read again. You access the *Logistics* system using remote access. The correct *Logistics* system can be accessed directly because the name of this source system is stored.
- If you need to change work time events in *Time Management*, the appropriate adjustments are made remotely in the respective *Logistics* system. You can only cancel work time events or create new ones. The cancelled and newly created work time events are then transferred to *HR*.
- For more information, see the *Scenario for Transferring Logistics Confirmations to HR* section in the ALE Implementation Guide (IMG).



- If you wish to transfer *Logistics* confirmation data to *HR*, you must ensure that:
  - Certain HR *Customizing* table entries are transported to the appropriate *Logistics* systems
  - The infotypes shown in the above slide are distributed to the appropriate *Logistics* systems, using the *Scenario for Distributing HR Master Data and Organizational Data*

Internal Use SAP Partner Only

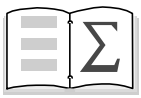
PDC Customizing: Unit Summary (1)



- In order to transfer confirmations from *Logistics* to *HR*, you must execute report CORUPROC in *Logistics*.
- In *HR*, you process work time events with the help of report SAPCDT46.
- In *HR*, you process work time durations with the help of reports RPWI1100 and RPWI2000.
- You reorganize the interface file LSHR with the help of report RPWI4100.

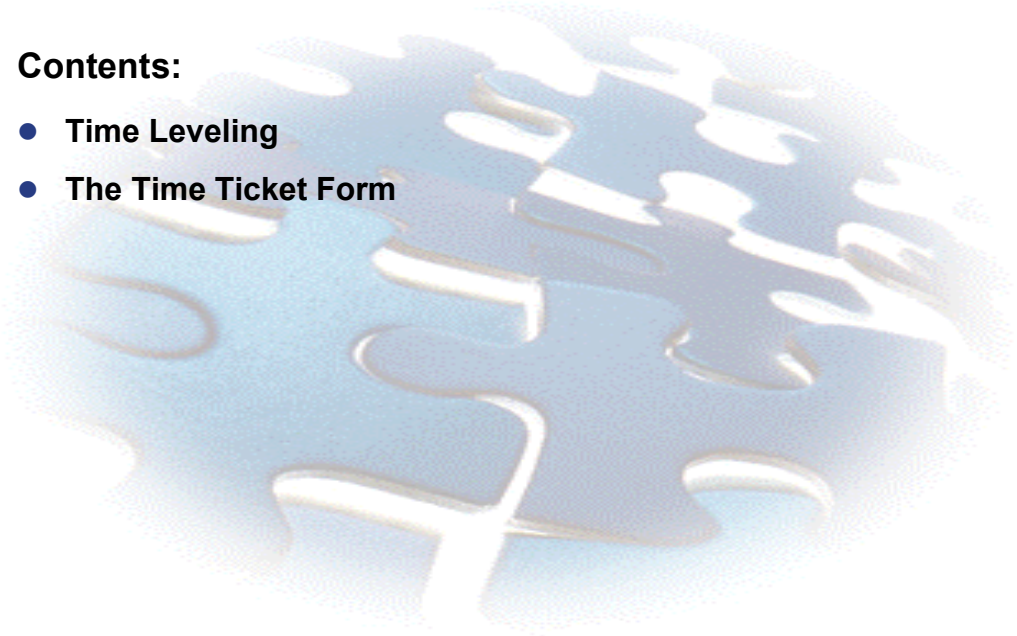
Internal Use SAP Partner Only

PDC Customizing: Unit Summary (2)



- If you wish to automate data transfer, you must schedule the appropriate reports in Customizing for *Personnel Time Management* and *Logistics*.
- To ensure the transfer of confirmations in distributed systems, you must make the relevant settings in Customizing for Application Link Enabling (ALE). For more information, see the *Scenario for Generating Confirmations from PP/PI/PM/SM/PS* in the ALE Implementation Guide (IMG).

Evaluations Before Running Payroll



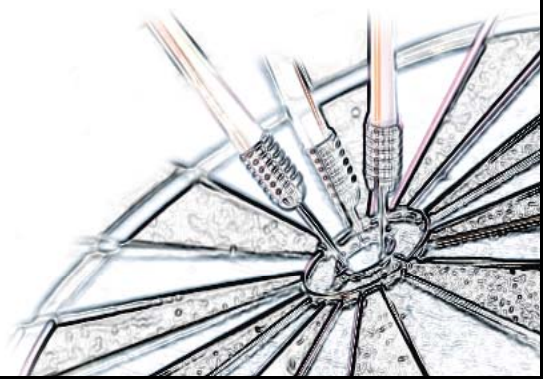
Contents:

- **Time Leveling**
- **The Time Ticket Form**

Evaluations Before Running Payroll: Unit Objectives

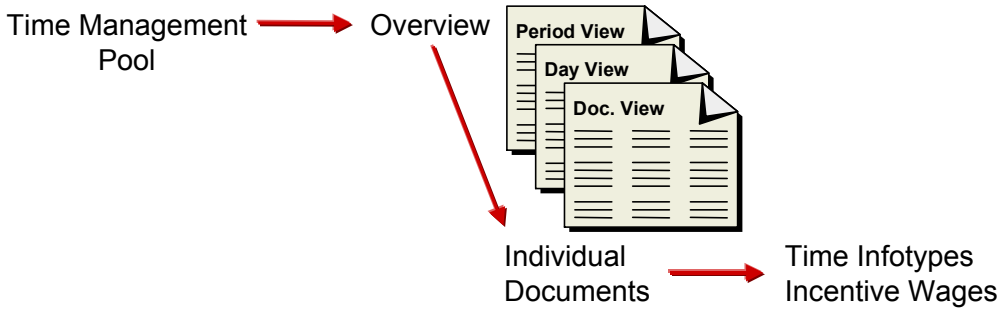
At the conclusion of this unit, you will be able to:

- **Understand time leveling and the gross payroll form**



What Is Time Leveling?

- **Compares working times with the times documented in time wages or incentive wages**
- **Adjusts working time by supplementing and correcting time data**



- In a time leveling context, "working time" means **actual working time** and not the **planned working time** stored in the *Planned Working Time* infotype (0007). It is assumed in this case that the employees in question participate in the time recording process.
- If the employee does **not** participate in time recording, working time is taken from the personal work schedule. In this case, absences reduce the working time, and overtime increases the working time.
- Time leveling can be accessed in time ticket maintenance and in the *Time Management* pool. The first view that appears on the screen is a period view containing the cumulated values of the period. By selecting a line, you can go to a day view showing the cumulated values for individual days. By selecting a line again here, you can go to the next level - a document view showing the individual time document in question. You can select a document to start the corresponding maintenance transaction and change the document. When you save the data, you return to time leveling.

Time Leveling: Examples

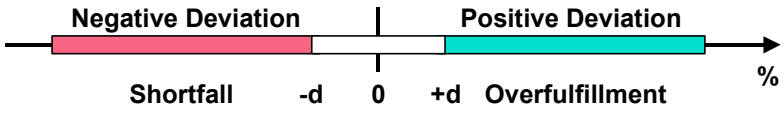
- **Incentive Wages**
  - **Checking the difference between the documented time in employees' time tickets and their actual working time**
  - **Individual Incentive Wages**
    - **Checking the target time and the labor utilization rate**
- **Manual Recording of Attendances using Infotypes**
  - **Do working times adhere to data entered in the *Attendances* infotype (2002)?**
- **Confirmations from *Logistics***
  - **Comparing the work schedule with confirmed times from *Logistics* if actual times are not recorded at PDC terminals**

- Employee remuneration information entered using bonus wage types is not processed in time leveling.
- These wage types have to be defined accordingly.

Internal Use SAP Partner Only

Time Leveling: Working Time and Documented Time

Working Time	Documented Time	Difference
With no time recording: = PWS Target working time + 2005 Overtime - 2001 Absences With time recording: = Time type from Time Eval.	= 2002 Attendances + Actual labor time + Actual setup time + Actual teardown time + 2010 Employee remuneration info	= Documented time - Working time
On Monday = 7.5 hours	= 7.7 hours	= 0.2 hours
On Tuesday = 7.5 hours	= 7.0 hours	= -0.5 hours

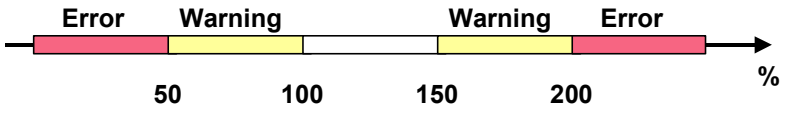


- In the report parameters for time leveling, you can specify how great the difference must be before it appears highlighted.
- The time type used as the basis for time recording is also specified in the report parameters.
- Employee remuneration information is only taken into account if the wage type in question has been defined accordingly. This means, for example, that bonus wage types are not processed because the times represented by these will usually already have been entered as attendances.

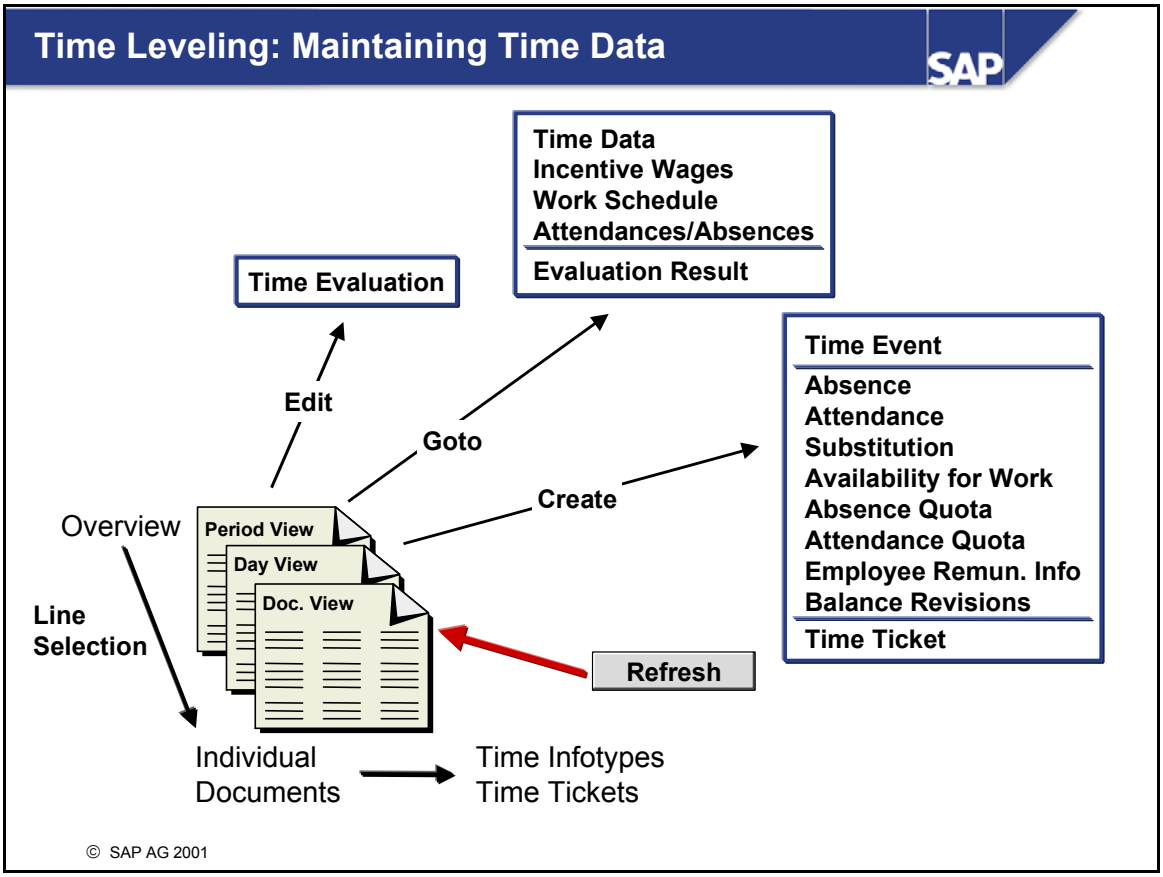
Internal Use SAP Partner Only

Time Leveling: Incentive Wage Results

Documented Time	Target Time	Result
= Actual labor time + Actual setup time + Actual teardown time	= Target labor time + Target setup time + Target teardown time	= Labor utilization rate or premium
= 8.0 hours	= 13 hours	= 162.5 %



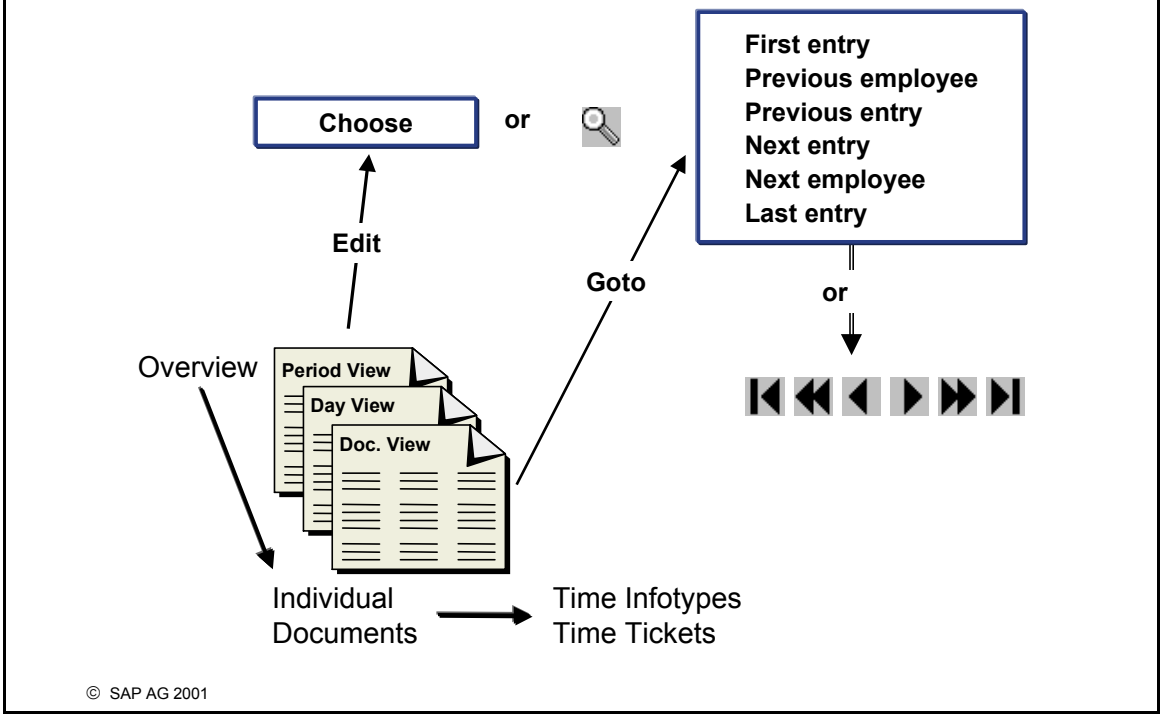
- The times of the time tickets recorded are cumulated in the *Documented times* and *Target times* columns. The *Result* (a labor utilization rate, for example) is determined from the employee's premium formula.
- Activate the *Display values from Incentive Wages* option if you want to view Incentive Wage results.
- The threshold values that determine the highlighting of the specific columns are defined in the *Customizing* settings for *Incentive Wages*.



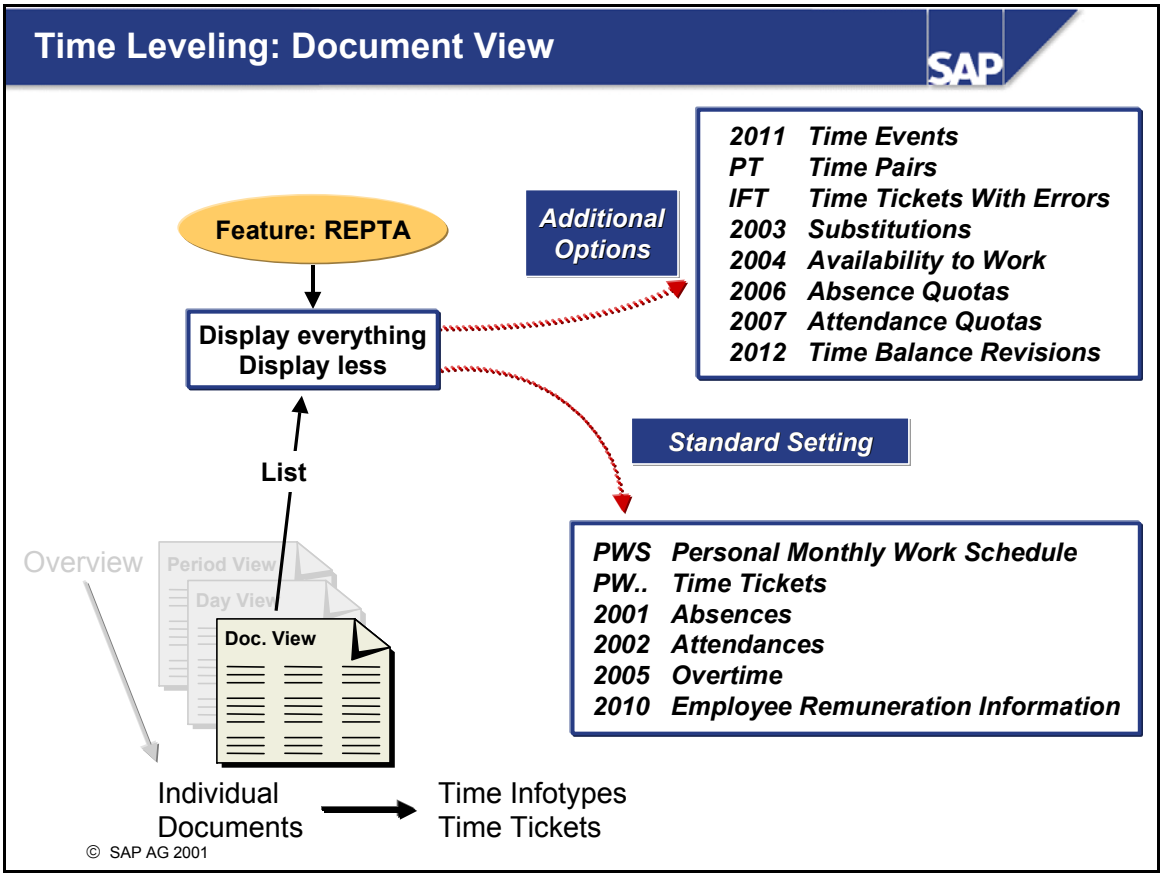
- Changes are always updated immediately in the document view.
- The day and period views are only updated if you choose *Refresh*.
- If an employee participates in time recording, you must first of all re-start *Time Evaluation*. Then choose *Refresh* to update the data.

Internal Use SAP Partner Only

Time Leveling: Navigation



- Select *Choose* to jump from the period view to the day view, and from the day view to the document view. By selecting *Choose* in the document view, you can:
  - Either display the relevant *Daily Work Schedule* in the *Personal Work Schedule*
  - Or display/change the corresponding *Time Tickets*



- You can use feature *REPTA* to preselect infotypes and tables. In this way, for example, you can omit the *Time Events* infotype (2011) and the *Time Pairs* table *(PT)* for employees who do not participate in time recording.
- To display all infotypes and tables, choose *All*.

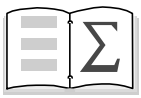
The Time Ticket Form

- **Form for original time tickets: XL08**
- **Can be accessed prior to running payroll**

```
Form XL08      : Incentive wage data

Personnel no. : 00001210    Name: Peter Bauer          Month: May 1998
Company code  : 1000 PArea: 1000 Cost center: 4230    Page:  1
Pay scale gr. : A04         Level:

D  WTy. Group   ConfNo. Order     Seq.  Op. SOp.  ActTime   LU rate

01 ML01 00000000                                  8.000     110.000
01 ML02 00000000                                  7.750
```

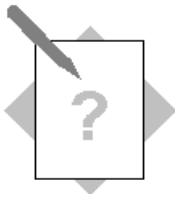

- Course *HR471 Payroll Reporting* looks in more detail at how to create and maintain forms.
- The form described above is printed during the remuneration statement evaluation.
- Form XL08 displays the original time tickets from *Incentive Wages*. If, for example, the labor utilization rate is not capped until the payroll is run, then the capping cannot be shown at this stage.
- Forms are discussed in more detail in Unit 8.

Evaluations Before Running Payroll: Unit Summary



- Time leveling compares an employee's working time with their documented time. This is a useful method of checking whether an employee has submitted enough time tickets.
- Form XL08 shows all time tickets that have been recorded in or transferred to *Incentive Wages* prior to running payroll.

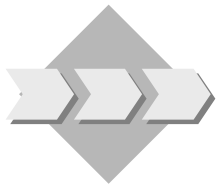
Exercises



Unit: Evaluations Before Running Payroll

At the end of these exercises, you will be able to:

- Check to see how an employee's working time is documented in *Incentive Wages*, and see what labor utilization rate he or she has achieved on the days in question.



You work in the payroll department of a manufacturing company. One of your jobs is to check the incentive wage data recorded for employees in your company's IT system.

Use the following personnel numbers in the exercises:

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490998	490998XX	49099807	49099823

4-4 Use the *Time Leveling* report to check over working times.

4-4-1 First of all, record the following premium time tickets for the employee with the personnel number 490998XX (record these for the current period):

For the 1st workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 2nd workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 3rd workday in the current period:

- Labor time – confirmed value 6.5 hours
- Labor time – target value 7.5 hours

For the 4th workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 5th workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

Save your entries.

4-4-2 Now run the time leveling report. Menu path: ***Human Resources → Time Management → Incentive Wages → Information system → Working time → Time leveling.***

In the *Other period* and *Person selection period* fields, enter the period during which you entered premium time tickets for employee 490998XX.

In the *Values from Incentive Wages* box, flag the *Display planned time* and *Display result* fields.

Click  .

4-4-3 Select the workday where there is a difference between the working time and the documented time, and enter an attendance that is equal to this difference.

Now refresh the day view. There should not longer be a difference.

Unit: Evaluations Before Running Payroll

Please note that, where XX appears in the exercises below, you should replace this with your course group number (the number of the workstation at which you are sitting).

Use the following personnel numbers in the exercises:

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490998	490998XX	49099807	49099823

4-4 Use the *Time Leveling* report to check over working times.

4-4-1 First of all, record the following premium time tickets for the employee with the personnel number 490998XX (record these for the current period):

For the 1st workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 2nd workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 3rd workday in the current period:

- Labor time – confirmed value 6.5 hours
- Labor time – target value 7.5 hours

For the 4th workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

For the 5th workday in the current period:

- Labor time – confirmed value 7.5 hours
- Labor time – target value 7.5 hours

Click  .

4-4-2 Now run the time leveling report. Menu path: ***Human Resources → Time Management → Incentive Wages → Information system → Working time → Time leveling.***

In the *Other period* and *Person selection period* fields, enter the period during which you entered premium time tickets for employee 490998XX.

In the *Values from Incentive Wages* box, flag the *Display planned time* and *Display result* fields.

Click  .

You are now looking at the period view. You can see that there is a difference between the documented time and the working time. Place your cursor on the entry where this difference occurs. Click  .

You are now looking at the day view. You can now see that the difference occurs on the 3rd working day of the current month.

4-4-3 Place your cursor on the line in question, and click the *Attendance* pushbutton.

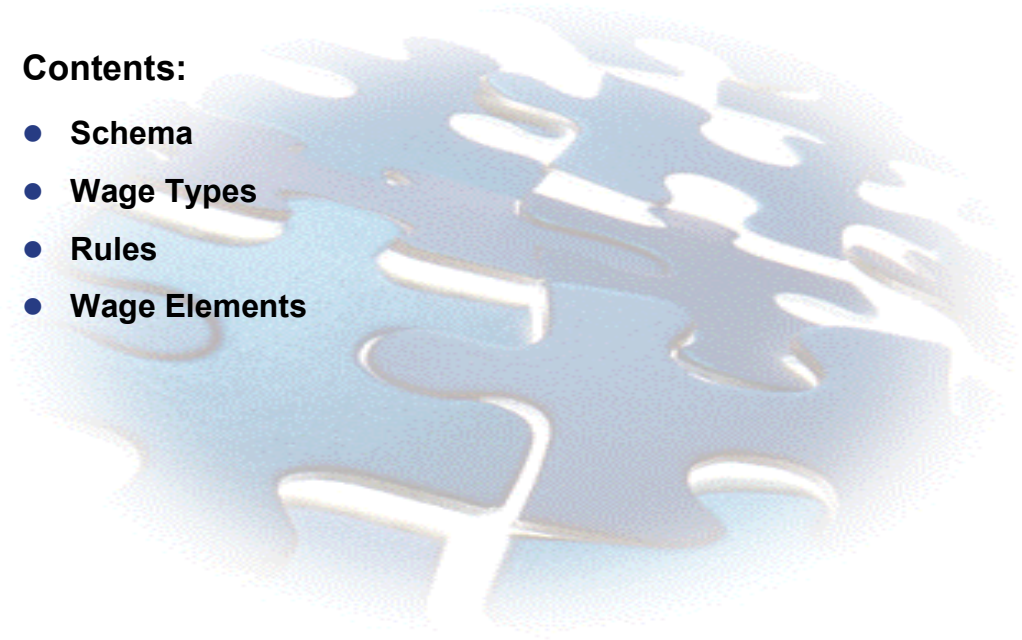
Select attendance type 0800 (productive hours). On the next screen that appears, enter 1.0 hours, and click  .

You are now back in the day view. Click  .

The difference should now have been evened out (‘leveled’) – the values in the columns for working time and documented time should now be identical.

Internal Use SAP Partner Only

Running Payroll



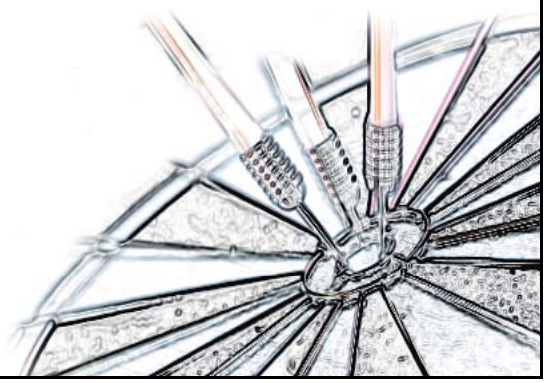
Contents:

- Schema
- Wage Types
- Rules
- Wage Elements

Running Payroll: Unit Objectives

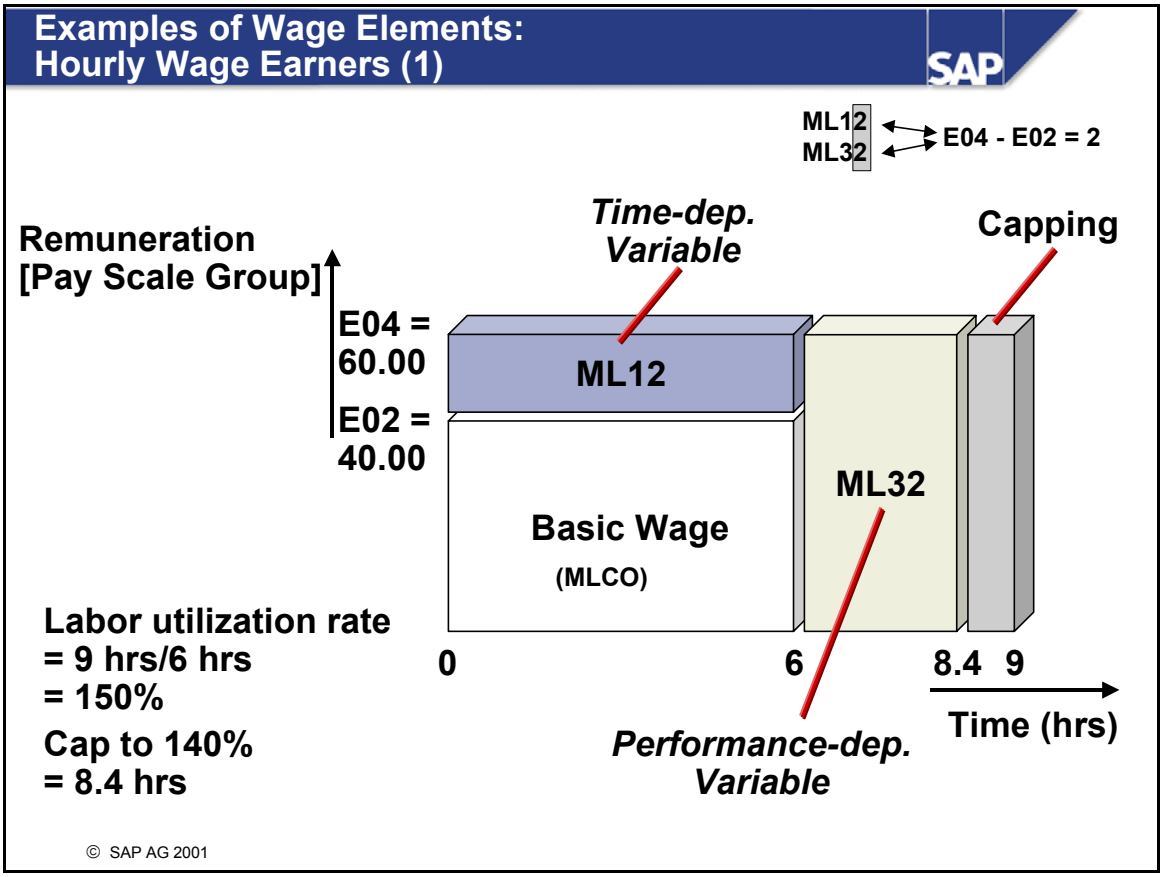
At the conclusion of this unit, you will be able to:

- **Describe an international payroll schema for incentive wages**
- **Understand the functions and operations for incentive wages**



Payroll for Incentive Wages: Overview

- **Hourly Wage Earners**
  - **Variable time- and performance-dependent elements on top of basic wages**
- **Earnings Factor**
  - **The employee's wages are valuated using the results of previous months**



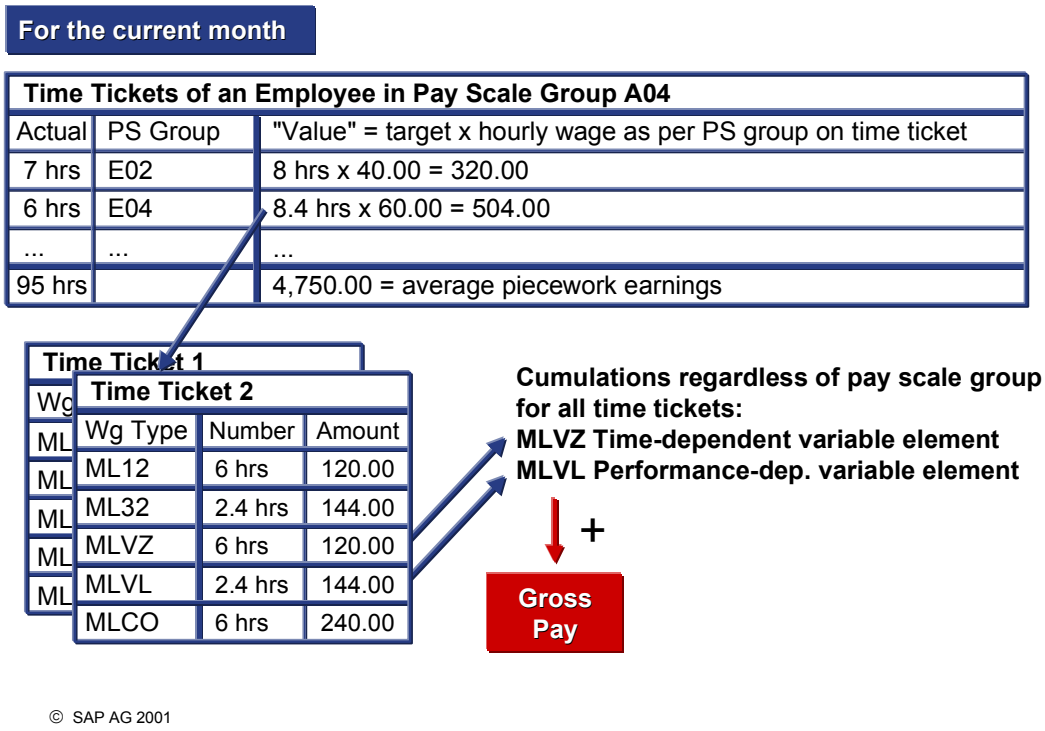
- The above example shows a time ticket which is capped and submitted for a pay scale group other than the employee's usual pay scale group.
- **Time-dependent variable element:**
  Employees who receive incentive wages can be assigned to a pay scale group for certain activities for which payment is higher than in the master pay scale group. The higher pay scale group must be specified on the time ticket. The incentive wages payroll run calculates the difference between the higher pay scale group and the master pay scale group, and then uses the actual time specified on the time ticket to valuate the difference. The resulting amount is called a time-dependent variable element.
- **Performance-dependent variable element:**
  The performance-dependent variable element rewards an employee for completing his or her work in less than the target time. The difference between target time and actual time is valuated as per the pay scale group on the time ticket.

Examples of Wage Elements: Hourly Wage Earners (2)

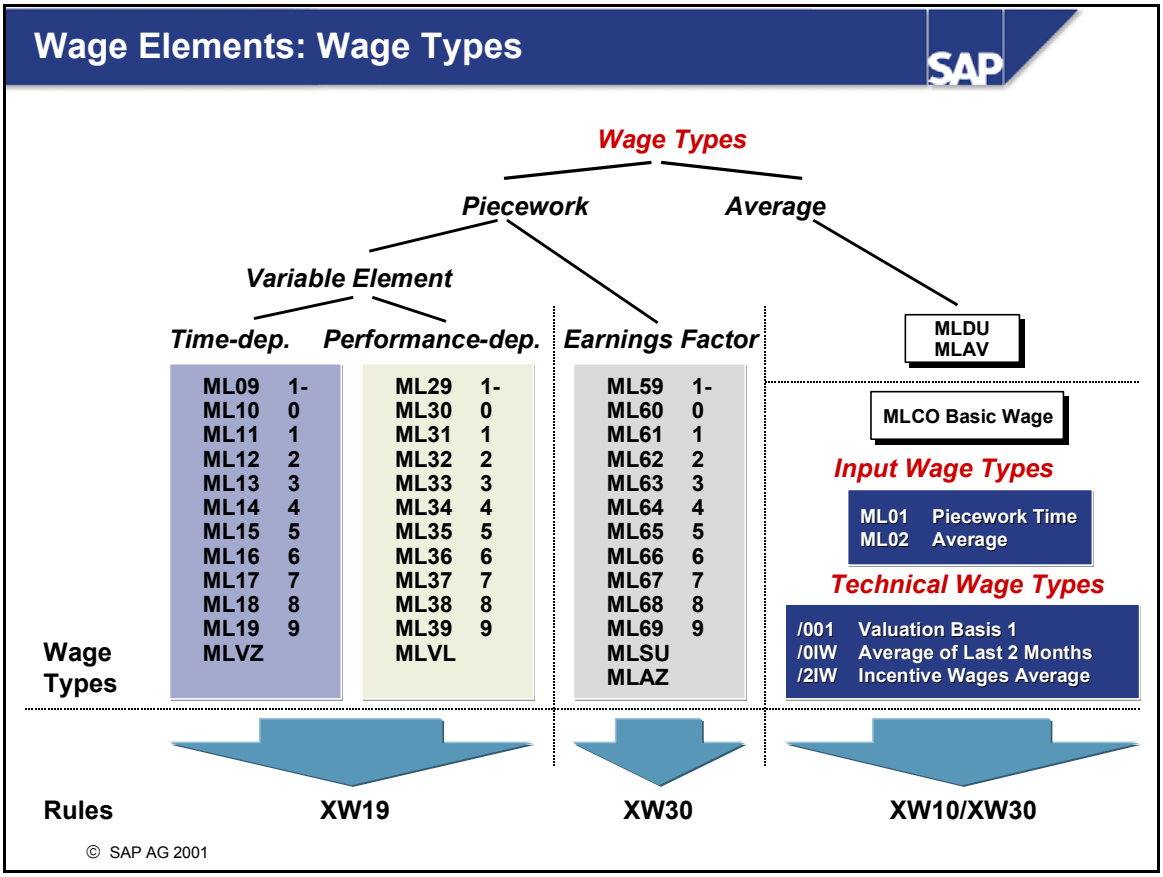
Basic Wage	(MLCO)	6 x 40.00	240.00
+		+	+
Time-dependent Variable	60.00 / 40.00 ML12 0 6	6 x (60.00 - 40.00)	120.00
+		+	+
Performance-dep. Variable	60.00 ML32 6 8.4	(8.4 - 6) x 60.00	144.00
=		=	=
Time Ticket Value		8.4 x 60.00	504.00

Internal Use SAP Partner Only

Examples of Wage Elements: Hourly Wage Earners (3)



- The *hourly wage earner* payroll example is set up so that time ticket remuneration is only included in an employee's gross remuneration (pay) amount if it exceeds the basic wage. The basic wage is cumulated in wage type MLCO. This wage type is not included in the gross pay amount, since the basic wage has already been calculated elsewhere. (See also Unit 9.)
- The work performed in different pay scale groups is cumulated for all time tickets in wage types ML09 to ML19 for the time-dependent variable element, and in wage types ML29 to ML39 for the performance-dependent variable element. These wage types (called "statement wage types") are merely used to output information on the form for subsequent time tickets and are **not** included in the gross pay.
- Wage types MLVZ and MLVL include the time-dependent and performance-dependent variable element respectively - in each case cumulated for all time tickets, regardless of the pay scale group on the individual time ticket. These wage types do not include that part of the total value of the time ticket that is already covered by the basic wage.
- The characteristics of wage types MLVZ and MLVL specify that these wage types are to be included in gross pay in cumulated form.

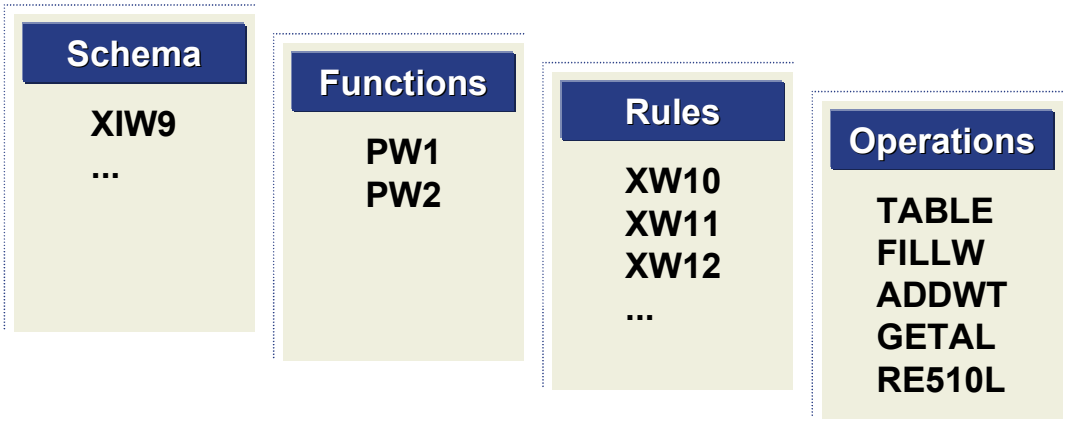


- XW19 Hourly wage earners
- XW30 Earnings factor
- The numbers after the wage types denote the "difference" between the pay scale group on the time ticket and the master pay scale group.
- **Wage Types** **Description**

MLCO	Basic wage
MLVZ	Time-dependent variable element
MLVL	Performance-dependent variable element
MLDU	Paid on average, extra earnings
MLAV	Base earnings
MLSU	Earnings factor
MLAZ	Extra piecework earnings

- The attributes of the wage types are determined in the step *Check Procedure in Payroll* in the *Incentive Wages* section of the *Payroll* IMG, and in the section *Time Wage Type Valuation -> Averages New* of the same IMG. The attributes of the wage types to be transferred to *Accounting* are determined by the V_T52EL view cluster.

Where Operations Fit In



- Operations are described in **RPDSYS00** under *OPEC,* and in the related online documentation.
- The operations and their specific characteristics referred to on this page, as well as on the following pages, should only be used with functions PW1 and PW2. These are the only functions that make time tickets in table LE and subsequent time tickets in table LS available.

Operations: TABLE, FILLW

- **TABLE:**
  Prepare access to table fields
  - **TABLELE Incentive wage time tickets *LE-RUW01, LE-SOW01,...***
  - **TABLEGT Employee participation *GT-PRZNT***
- **FILLW:**
  Write to subsequent time ticket
  - **RUW01, VGW01, SOW01, LGRAD**
  - **Write to internal table LS**

- Operation **TABLE** is used to prepare access to table fields.
  - TABELE Should only be used in PW1 and PW2
  - TABLEGT Should only be used in PW2
- The percentage group participation field (used for partial cumulations, for example) is not supported when time tickets are recorded. However, the field can be evaluated in *Payroll*.
  - **Example:**
    A group has a labor utilization rate of 135%. "Special" group members, however, should not have the same percentage. Within *Payroll*, for example, a relief person who has really helped out by taking over other people's work can be valuated with 80% of the 135%, that is, 108%.
- Operation FILLW can be used to write values to the following fields in table LS:
  - RUW01 Confirmed actual time <- NUM
  - VGW01 Standard labor time <- NUM
  - SOW01 Target time <- NUM
  - LGRAD LU rate <- RTE

Operations: ADDWT, GETAL, RE510L

- **ADDWT:**
  Add wage type in subsequent wage type
  - **ADDWTM Incentive wage results as per LS**
- **GETAL:**
  Set labor utilization rate
  - **PER, DAY Set labor utilization rate of period or day**
- **RE510L:**
  Read pay scale table
  - **Group and level from time ticket, wage type SPACE**

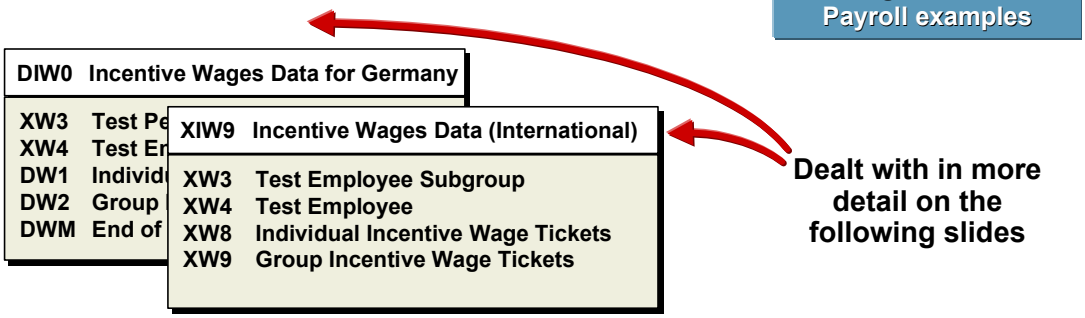
- **ADDWTM** transfers the relevant wage type to table LS of the subsequent time tickets.
- You can use operation **GETAL** to modify the labor utilization rate in the time ticket. In both cases, the key date is the posting date of the time ticket.
  - **Individual incentive wages:**
    Each time ticket has its own labor utilization rate. Operation **GETAL** can be used to write the employee's daily LU rate, or period LU rate to the time ticket.
  - **Group incentive wages:**
    In group incentive wages, the time ticket has the group LU rate calculated for the period. Operation GETAL enables you to write the daily group LU rate to the time ticket.
- Operation **RE510** finds the entry in table T510 that corresponds to the parameters, and prepares to read the values of this entry. If the specification is **RE510L**, the pay scale group and level from the incentive wage time ticket and the wage type **SPACE** are used.

Schemas and Rules: Overview

- **Employee subgroup grouping for personnel calculation rule**
  - **1 Hourly wage earners, 2 Monthly wage earners, 3 Salaried employees**
- **Examples of schemas and rules**
  - **International, Germany**
- **Payroll examples**
  - **1 Hourly wage earners, 3 Earnings factor**

Number of employee subgroup grouping for personnel calculation rules

Naming conventions Payroll examples



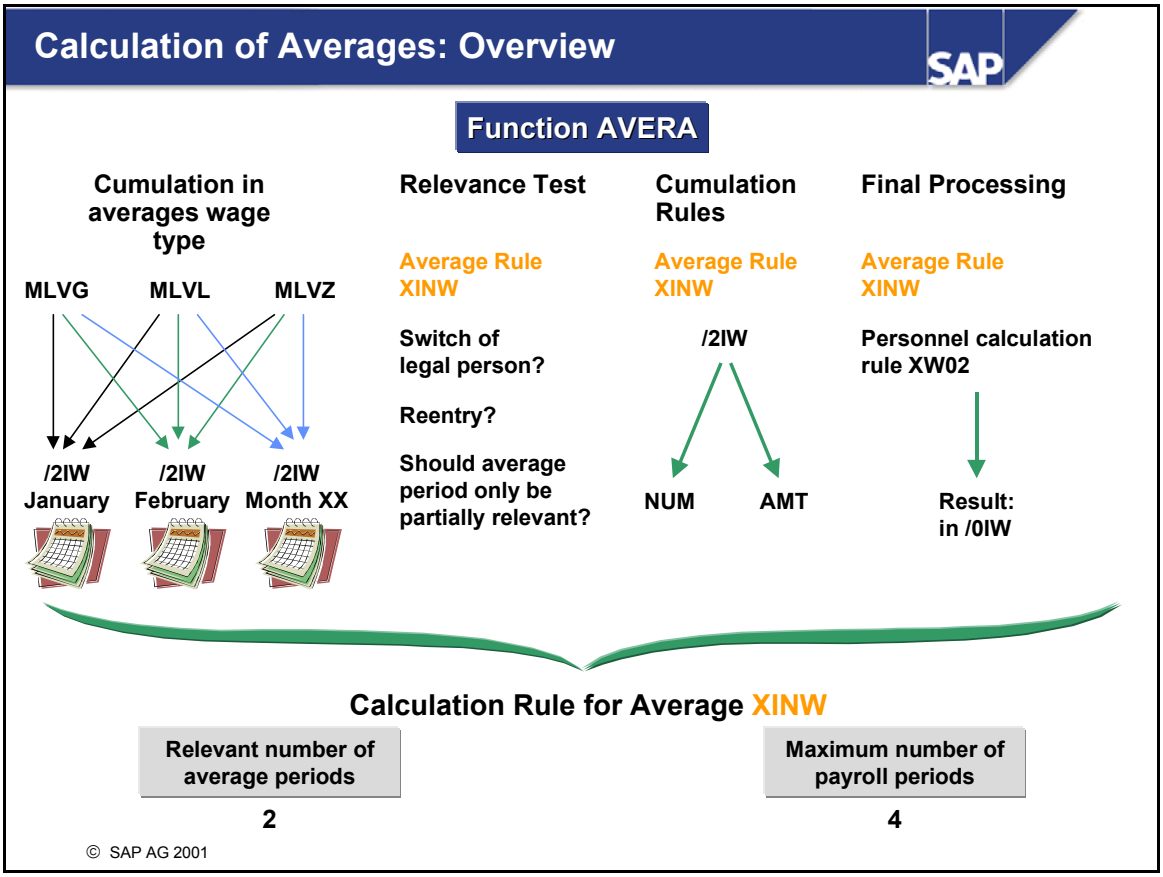
- **International**
  - In schema XIW0
    - XW0 to XW4
  - Within personnel calculation rules
    - Hourly wage earners: XW10 to XW14 and XW1M, XW03, XWVL, XWVZ, XWCO
- **Germany**
  - In schema DIW0
    - DW0 to DW2, DWM, XW3 and XW4
  - Within personnel calculation rules
    - Monthly wage earners: DW20, XW03, DW21 to DM24, DW2M and DW2C, XWVL, XWVZ, XWCO
    - Earnings factor: DW30, XW03, DW31 and DM32, DW3M and DW3C, DW3I, DWCO
- The third digit of the name of the personnel calculation rule denotes the accounting example on which the rule is based: xx1x hourly wage earners, xx2x monthly wage earners, xx3x earnings factor.
- The only difference between the calculation of hourly wages and monthly wages is that the basic monthly wage must first be converted to an hourly rate (rule DW2C).

Schema: Where Incentive Wages Fits In

- **X000 Entire schema**
  - **XT00 Gross pay**
    - **XIW9 Incentive wages**

```
000010 COM                  Payroll schema: INTERNATIONAL
...... ....
000070 COPY  XLR0           Read last payroll result
000080 COPY  XT00           Gross pay (Time Management)
000090 COPY  XAP0           Read further payments/deductions
.....
```

```
000010 COM                      Gross pay(Time Management)
...... .....
000350 PIT    X015 GEN          Evaluate time wage types
000360 AVERA                    Calculation of averages
000370 PIT    X009 GEN NOAB     Remove val. bases with ALP split
000380 COPY   XIW9              Incentive wages
000390 PIT    X020 P03          Gross and RT storage
```



- You define settings for the **AVERA** function in the section *Time Wage Type Valuation -> Averages New* of the *Payroll* IMG.
- Every payroll period, the results of wage types MLVG, MLVL and MLVZ are written to the averages wage type **/2IW**.
- The relevance test deals with the following issues:
  - Should periods where the employee was only temporarily assigned (i.e. other legal person) be taken into account?
  - Should the periods before reentry (i.e. where the employee rejoins) be taken into account?
  - Should periods that are only partially relevant be taken into account?
- Provided that they are specified in Customizing, special function modules can be called for dealing with country-specific issues.
- The rule for cumulating averages (rule **XINW**) writes the appropriate values of wage type /2IW in the NUM or AMT field.
- Calculation rule XINW calculates the relevant average values, taking into account all other existing average rules. Two average periods are taken into account if these fall within the last four payroll periods.
- The AVERA function is dealt with in more detail in course HR400 (Payroll Configuration).

Internal Use SAP Partner Only

Rule XW02: Averages

Calculates average of previous month

- **Input: Wage Type /2IW**
  - **NUM Cumulated Hours**
  - **AMT Cumulated Amounts**
- **Output: Wage Type /0IW**
  - **RTE Average of Last 2 Months**

```
000010            D  OUTWPABART
000020 1          D  NUM=M     NUM?0
000030 1  =          RTE=  /001RTE%KMINZGRTE-   /001
000040 1  >          AMT=M     DIVID ANR ZERO= NA
000050 2          D  NUM=M     NUM?0
000060 2  =          RTE=  /001ZERO= NA
000070 2  >          AMT=M     DIVID ANR ZERO= NA
```

Hourly Wages

Earnings Factor

- Personnel calculation rule XW02 calculates the previous months' average based on the hours and amounts cumulated in wage type /2IW, and then writes this average to the RTE field of wage type /0IW.
- The quotient for hourly wage earners is calculated using variable elements (MLVL, MLVZ) and the hours worked in incentive wages. It represents the average extra piecework earnings per piecework hour. The average of paid time tickets affects the variable elements.
- In the hourly wages example, the average of the last two months is used in the current month as the basis for valuating the average of time tickets paid.
- In the earnings factor example, the basic monthly wage is multiplied by the average earnings factor of the last two relevant months.

Schema XIW9: Incentive wages

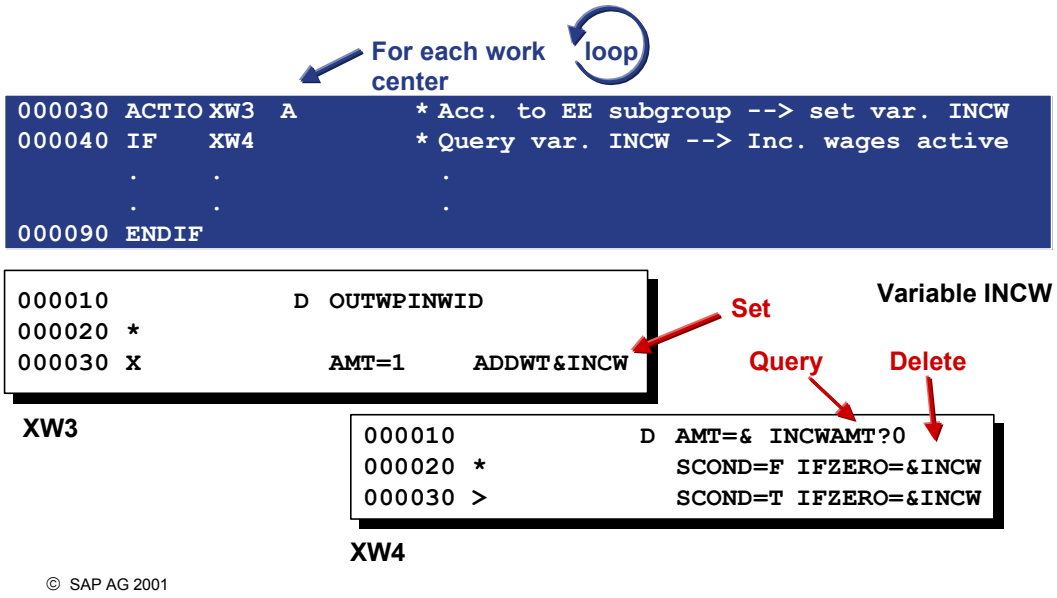
- **Internationally applicable elements for calculating incentive wages**

```
000010 COM                 Edit incentive wage data
000020 BLOCK BEG           Incentive wages
000030 ACTIO XW3  A        Acc. to EE subgroup --> set var. INCW
000040 IF    XW4           Query var. INCW --> inc. wages active
000050 PW1   XW8  GEN  3   Individual incentive wage time tickets
000060 PW2   XW9  GEN  3   Group incentive wage time tickets
000070 ACTIO DWM  AR       Month-end closing LLOHN
000080 PRINT NP   LS       Print subsequent time tickets
000090 ENDIF               End of incentive wages
000100 BLOCK END           Incentive wages
```


- The system runs through the main section of this schema if there is a possibility that there is incentive wages data for the employee in question (this is determined by the employee subgroup).

Rules XW3 and XW4: Test Employee

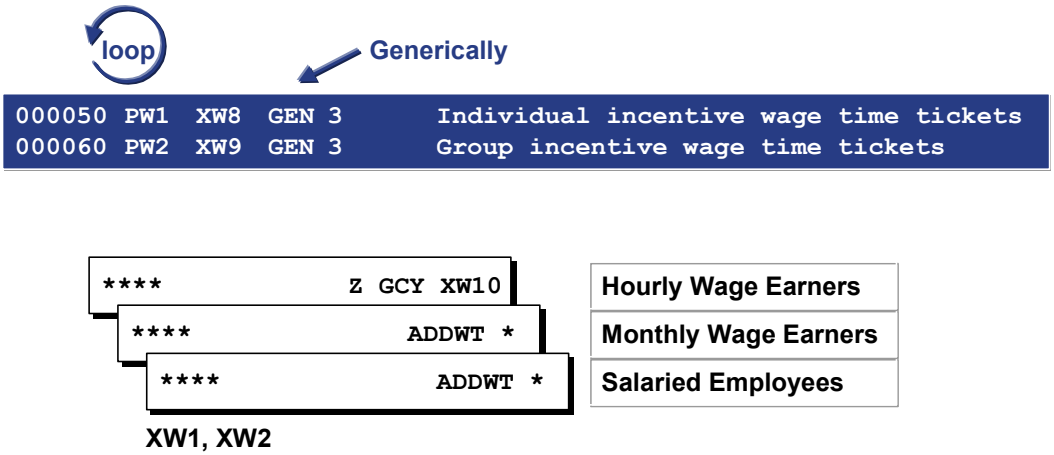
- **Tests whether an employee participates in Incentive Wages by querying employee subgroup**



- The appropriate country-specific employee subgroups must be set up if international schemas are used.

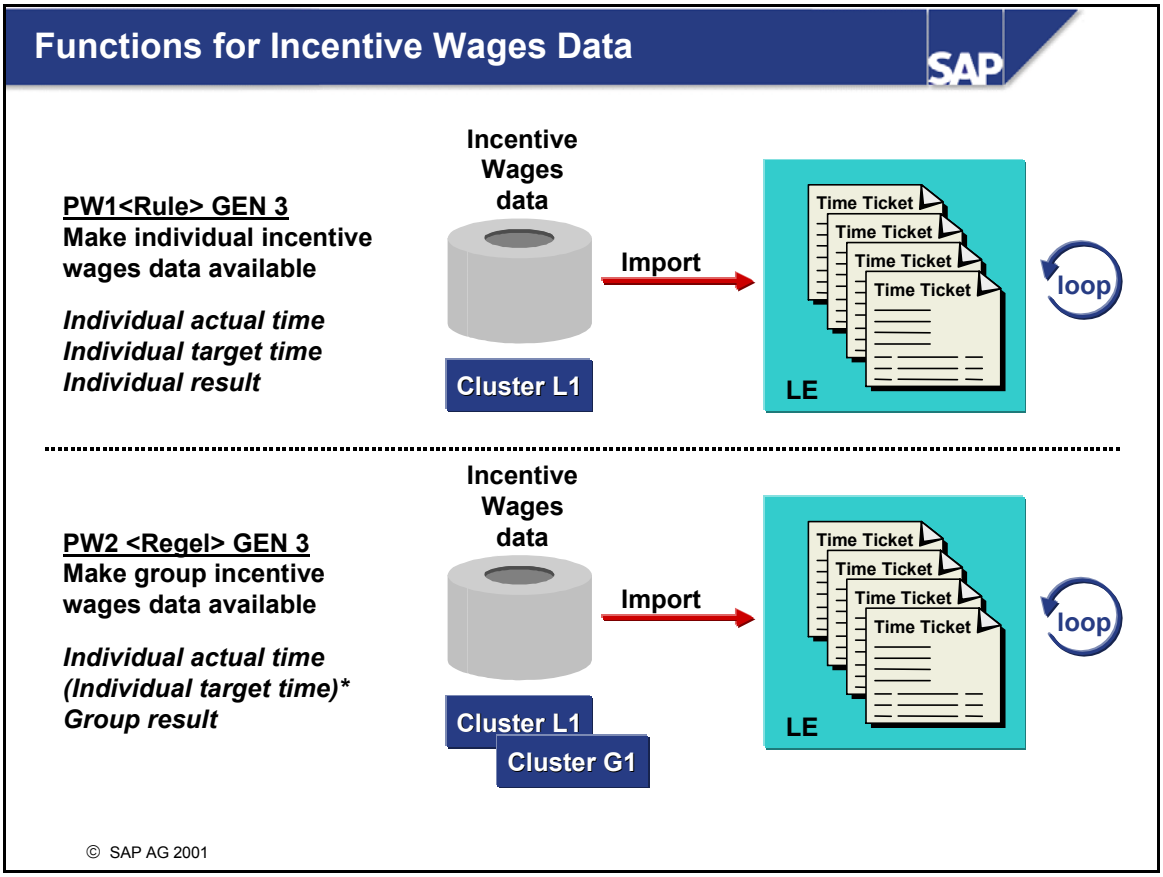
Rules XW8 and XW9: Valuation

- **Time ticket valuation**

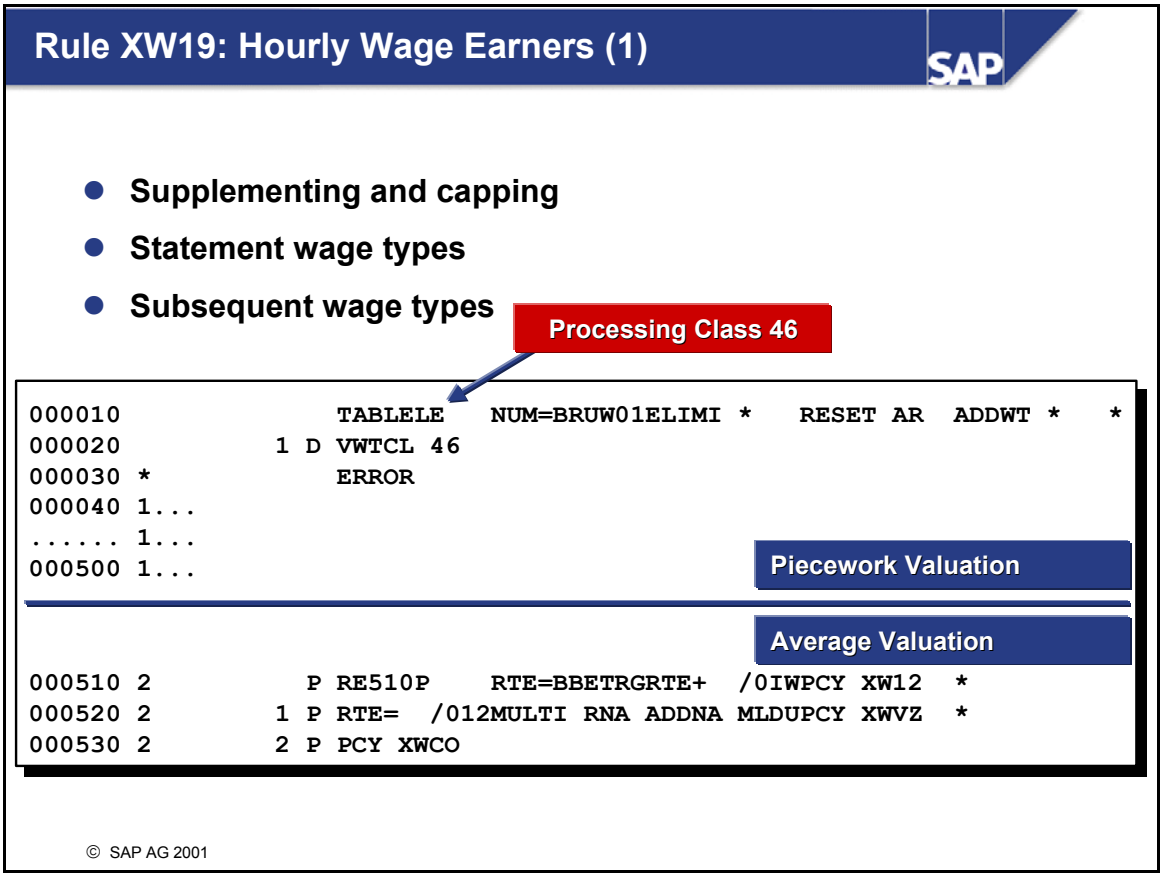


- In the case of hourly wage earners, personnel calculation rule XW10 is called up immediately to calculate the hourly wages.
- For all other employee subgroup groupings, only the wage type of the current time ticket is used for payroll.
- Identical rules are used to process the times tickets from group incentive wages and individual incentive wages.
- The functions must always be called generically here.
- Parameter 3 specifies how account assignment information (C1 split) is retrieved. (See also Unit 9.)

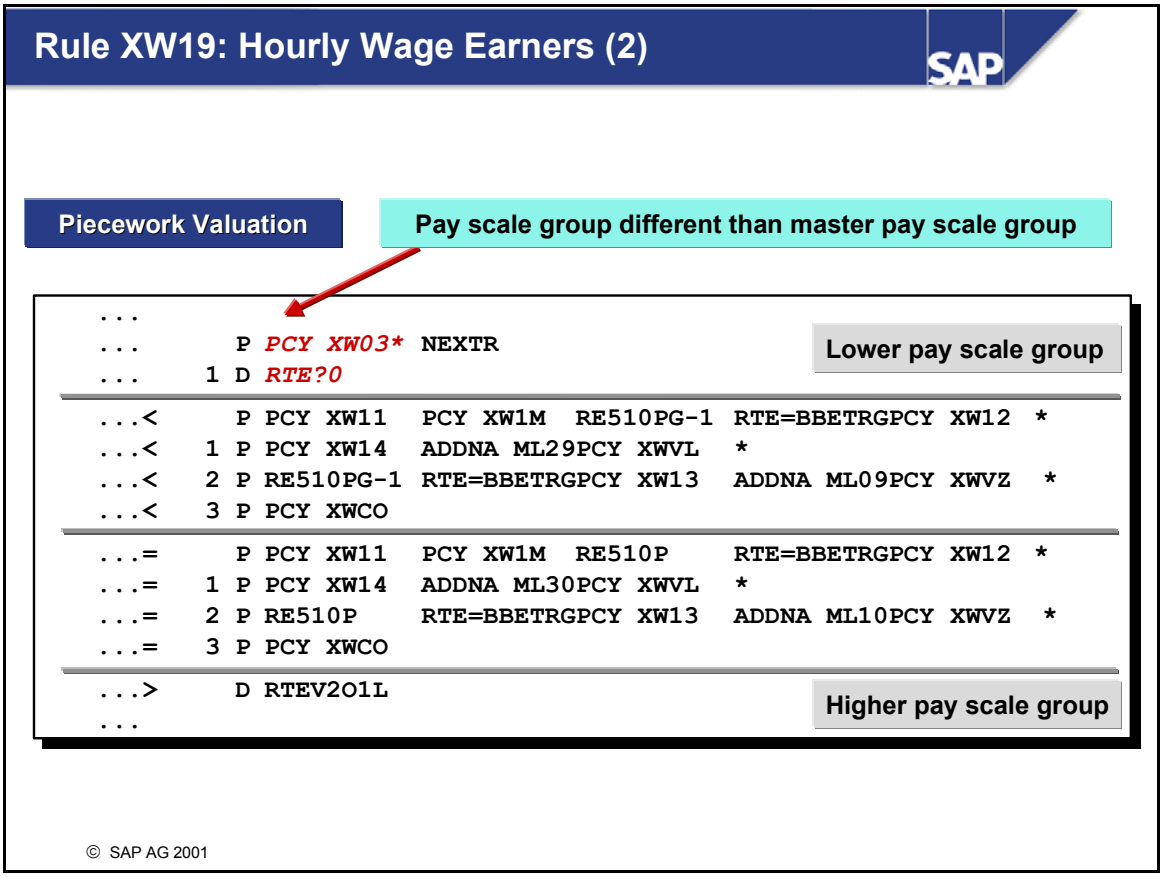
Internal Use SAP Partner Only



- The payroll indicator defined in the time ticket type (see Customizing) ensures that, in function PW1, only time tickets from individual incentive wages are written to table LE. In function PW2, it ensures that only time tickets that are relevant to group incentive wages are written to table LE.
- In function PW2, cluster G1 is read in addition to cluster L1. The result of these time tickets is always the result of the group in question. The target time is then calculated as the product of the actual time and the group result divided by 100, and written to the time ticket.*
- Both functions can be used more than once in gross payroll.



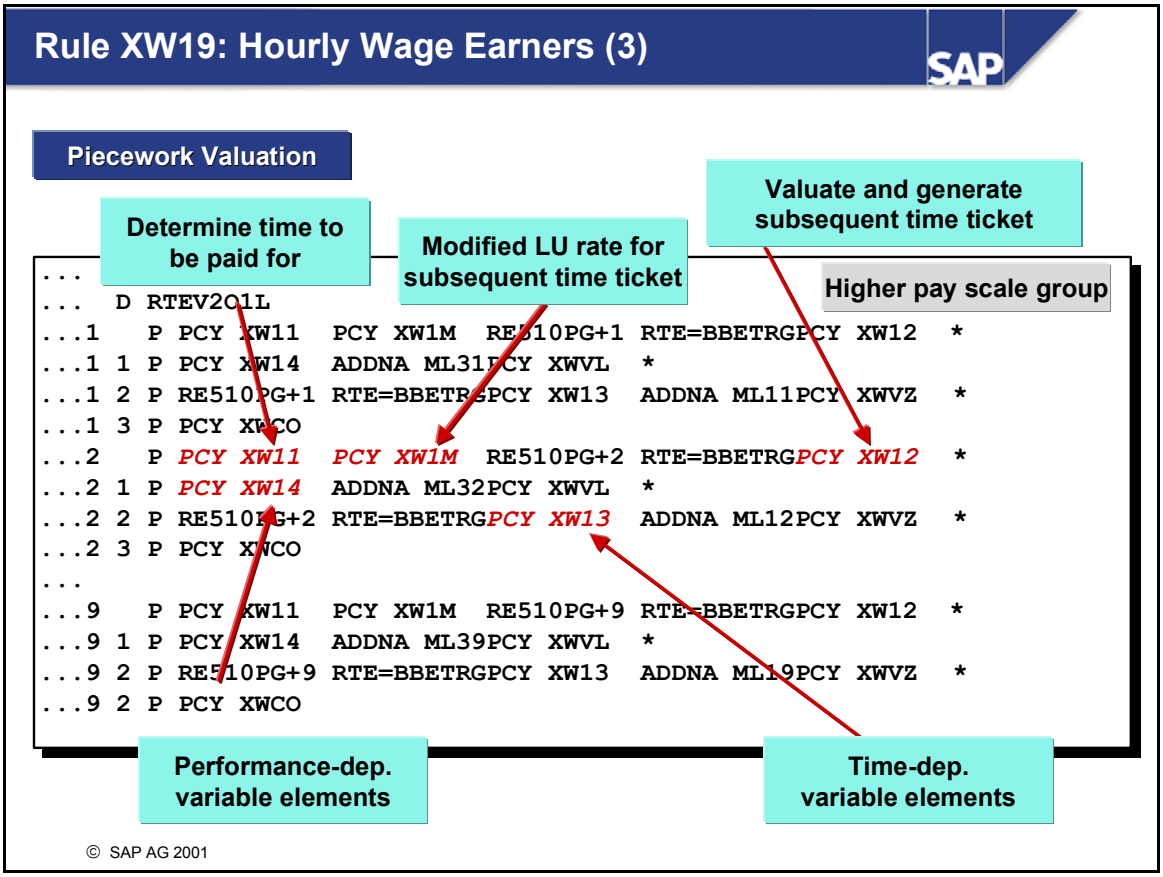
- Personnel calculation rule XW19 valuates time tickets from individual and group incentive wages.
- The planned (target) hours in the time ticket are valuated on the basis of hourly wage defined for the pay scale group in question. If the labor utilization rate falls short of a specific value, it is supplemented; if it exceeds a certain level, it is capped. This issue will be dealt with in more detail on the following pages. Time tickets paid on the basis of averages are valuated using the average of the previous months.
- Processing class 46 must be specified for all wage types used in time tickets - since this means that a distinction can be drawn between performance-dependent payment and payment based on averages.



- Depending on how the pay scale group in the time ticket differs from the master pay scale group, data is written to the following statement wage types:

	Time-dep.	Performance-dep.
• Time ticket pay scale group < Master pay scale group →	ML09	ML29
• Time ticket pay scale group = Master pay scale group →	ML 10	ML30
• Time ticket pay scale group > Master pay scale group →	ML11, ML12,..., ML19	ML31, ML32,..., ML39

- The type of difference involved is determined on the basis of the numeric suffix of the pay scale group.



- In rule XWVL, wage type MLVL - which is included in gross pay - is cumulated using an account assignment split.
- In rule XWVZ, wage type MLVZ - which is included in gross pay - is cumulated using an account assignment split.
- In rule XWCO, wage type MLCO - which is **not** included in gross pay - is cumulated using an account assignment split. (See also Unit 9.)

Rule XW03

- **Wage group in time ticket different than master wage group**
  - **Input:**
    - **-**
  - **Output:**
    - **RTE: Deviation**

```
000010            D  TABLELE   VAOFF  2   VALEN  1   VARGBLOGRR
000020 *             RTE=0
000030 1          D  RE510P    VAOFF  2   VALEN  1   VARGBTRFGR
000040 1  *          RTE=1-
000050 1  1          RTE=0
000060 2          D  RE510P    VAOFF  2   VALEN  1   VARGBTRFGR
000070 2  *          RTE=1-
000080 2  1          RTE=1
000090 2  2          RTE=0
000100 3          D  RE510P    VAOFF  2   VALEN  1   VARGBTRFGR
...
```


- The time ticket pay scale group's deviation from the master pay scale group is written to the RTE field.
- The "numeric" part of the pay scale group is interpreted as a digit. The system takes the third character of the pay scale group as the numeric part. Bearing this in mind, you might need to specify a different length and offset in this cycle.
- **Example:**
  - Time ticket pay scale group E04
  - Master pay scale group E02
  - Difference: +2
- If the time ticket pay scale group is lower than the master pay scale group, the deviation is fixed as -1. A deviation greater than 9 is not possible.

Rule XW11: Supplementing/Capping

- **Supplements or caps the labor utilization rate**
  - **Input:**
    - **NUM: Actual time**
  - **Output:**
    - **NUM: Paid time**
    - **AMT: Modified LU rate**

```
000010             D TABLELE   AMT=BLGRADAMT?KMINZG
000020 *           D AMT?KMAXZG
000030 * *           MULTI ANN NUM/100
000040 * >           AMT=KMAXZGMULTI ANN NUM/100
000050 <             AMT=KMINZGMULTI ANN NUM/100
```


- The time ticket's labor utilization rate is supplemented or capped.

Rule XW1M: Modified LU Rate

- **Writes modified LU rate to subsequent time ticket**
  - **Input:**
    - **AMT: Modified LU rate**
  - **Output:**
    - **RTE: Modified LU rate**
    - **AMT: Modified LU rate**

```
000010  RTE=1     MULTI RAR FILLWLGRAD  "RTE = AMT, STORE RTE
```


- The time ticket's modified labor utilization rate (supplemented or capped) is written to the subsequent time ticket.

Internal Use SAP Partner Only

Rule XW12: Subsequent Time Ticket

- **Valuates and generates subsequent time ticket**
  - **Input:**
    - **RTE: Piecework rate of pay scale group**
    - **NUM: Paid time**
  - **Output:**
    - **RTE: Piecework rate of pay scale group**
    - **NUM: Paid time**
    - **AMT: Earnings**

```
000010 MULTI RNA ELIMI *   RESET K   ADDWTM    ELIMI *   RESET AR
```


- The paid time is valuated using the piecework rate, and the result is written to the subsequent time ticket (taking the C1 split into account).

Internal Use SAP Partner Only

Rule XW14: Performance-Dependent Variable

- Outputs performance-dependent variable elements
  - Input:
    - RTE: Piecework rate of pay scale group
    - NUM: Paid time
  - Output:
    - RTE: Piecework rate of pay scale group
    - NUM: Difference between paid time and actual time
    - AMT: Performance-dependent variable elements

```
000010              TABLELE   NUM-BRUW01MULTI RNA
```


- This personnel calculation rule valuates the difference between paid time and actual time using the piecework rate.

Rule XWVL: Cumulation of Performance-Dependent Variable Elements

- **Input:**
  - **RTE: Piecework rate of pay scale group**
- **Output:**
  - **RTE: 0**

```
000010            D AMT?0
000020 *
000030 >            RESET K   ZERO= R   ADDNA MLVLELIMI K
```


- This personnel calculation rule cumulates the performance-dependent variable as per the account assignment information in wage type MLVL.

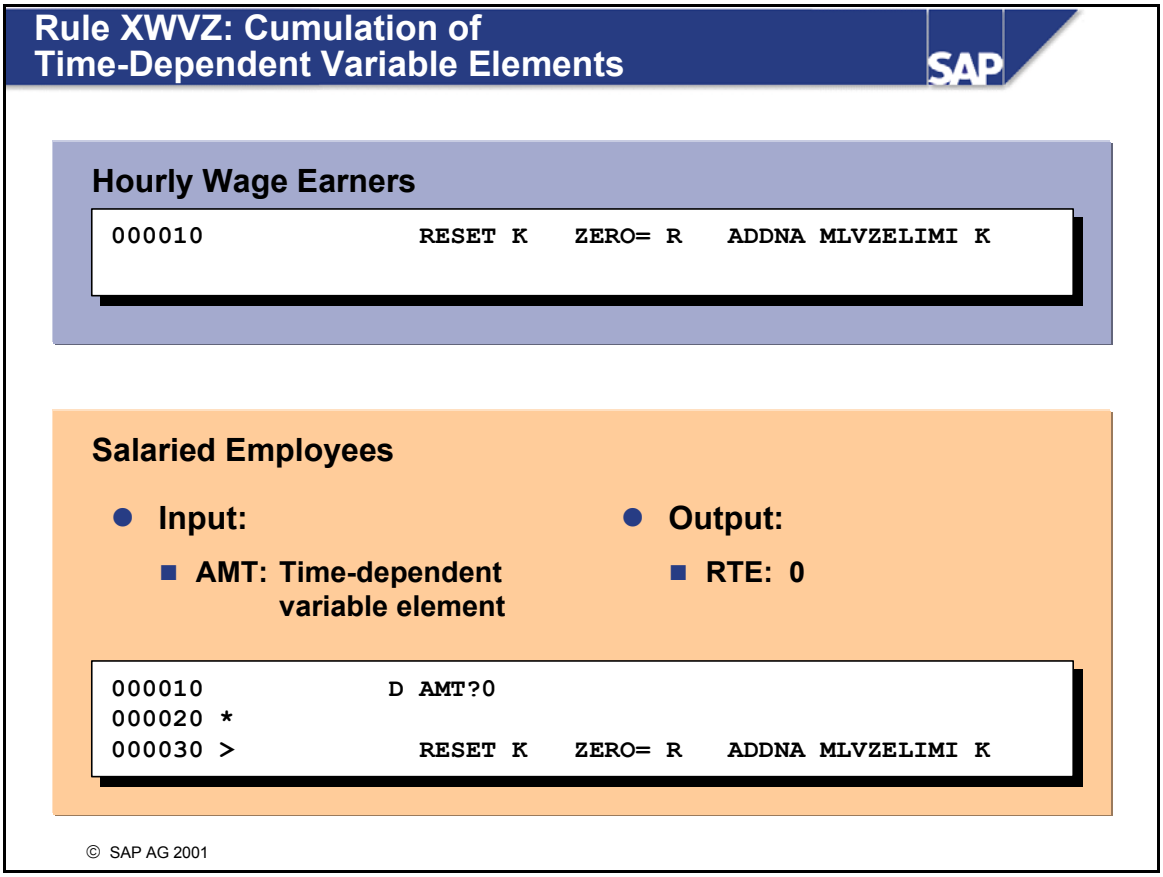
Rule XW13: Time-Dependent Variable

- **Outputs time-dependent variable elements**
  - **Input:**
    - **RTE: Piecework rate of pay scale group**
  - **Output:**
    - **RTE: Difference to master wage group**
    - **NUM: Actual time**
    - **AMT: Time-dependent variable element**

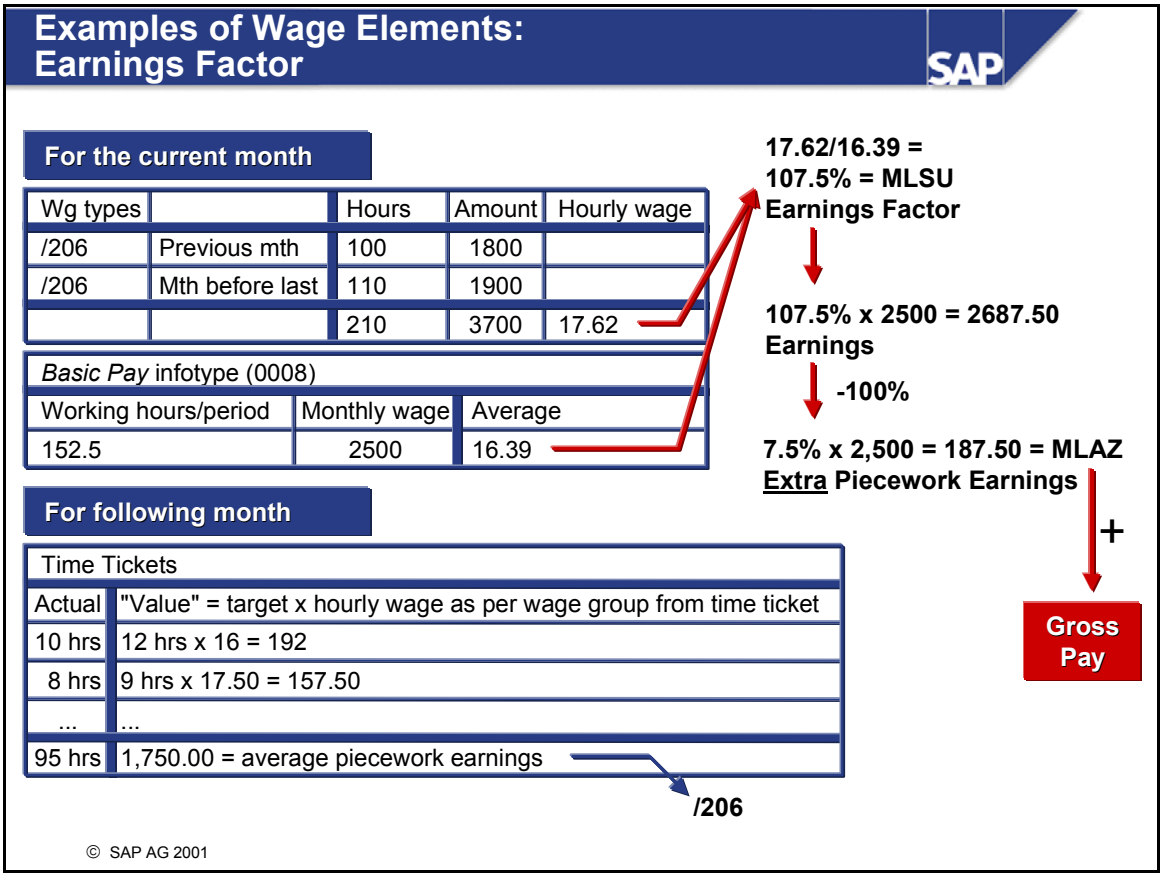
```
000010              RTE-  /001TABLELE   NUM=BRUW01MULTI RNA
```


- This personnel calculation rule valuates the actual time on the basis of the difference between the piecework rates in the time ticket and the master pay scale group.

Internal Use SAP Partner Only

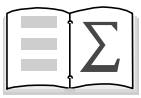


- This personnel calculation rule cumulates the time-dependent variable element as per the account assignment information in wage type MLVZ.
- It is possible to have a negative amount for hourly wage earners. This might be the case, for example, if the pay scale group in the time ticket is lower than the master pay scale group.
- The amounts for salaried employees are always positive.



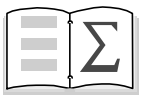
- In order to calculate averages for subsequent months, every wage type is valuated and cumulated in wage type /206. These time tickets do not affect the current month's earnings.
- The work performed in different wage groups is cumulated in wage types ML59 through ML69. These wage types (called "statement wage types") are merely used to output information on the form for subsequent time tickets and are **not** included in the gross pay.
- To determine the earnings factor, average earnings are calculated using the time tickets of the previous two months. These average earnings are stored in wage type /206 for the previous months. The monthly wage is read from the basic pay infotype. The two values are converted to an hourly basis, and the earnings factor is the quotient of the two values. In this example, it is 107.5%.
- The earnings factor multiplied by the monthly wage gives you the current month's earnings.
- Extra piecework earnings are earnings that exceed the basic monthly wage. In this example, the extra piecework earnings are 187.50.
- The characteristics of wage type MLAZ determine that it is cumulated and included in gross pay.

Running Payroll: Unit Summary (1)



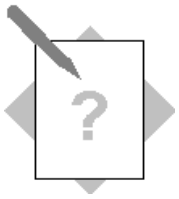
- The standard system includes examples of three personnel calculation schemas.
- In the example involving hourly wages, variable elements from time tickets are added to the basic monthly wage.
- In the earnings factor example, the basic monthly wage is valuated using results from previous months.

Running Payroll: Unit Summary (2)



- Functions PW1 and PW2 process time tickets for individual and group incentive wages.
- Operations TABLE, FILLW, ADDWT, GETAL, RE510L, and their specifications are included in the personnel calculation rules for *Incentive Wages*.

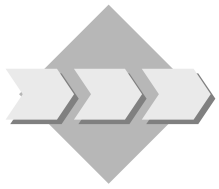
Exercises



Unit: Running Payroll

At the end of these exercises, you will be able to:

- Run payroll for employees participating in incentive wages



As a member of the project team, one of your jobs is to adapt the payroll schema to current requirements. You focus particularly on payroll for incentive wages.

The same employee (personnel number 490999XX) is always used in the following exercises for running payroll – replace XX with the number of your workstation/course group.

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490999	490999XX	49099907	49099923

Here is an overview of the names of the objects used in the following exercises:

Object	Exercise	Original	Name	Workstation 23
Personnel number	All	490999XX	490999XX	49099923
Schema	All	X000	X0xx	X023
		XT00	XTxx xx = workstation + 10	XT33
		XIW9	XIxx	XI23
Rule	3	-	Z3xx	Z323
	4	-	Z4xx	Z423
	5	-	Z5xx	Z523
		XW11	11xx	1123
	6	-	Z6xx	Z623

5-1 Create your own payroll schema.

5-1-1 To do so, first copy the following schemas:

Schema	Name	Workstation 23
X000	X0xx	X023
XT00	XTxx	XT33
XIW9	XIxx	XI23

5-1-2 Then, within the schemas, replace the subschema calls as follows:

In schema	Replace call of	With
XTxx	XIW9	XIxx
X0xx	XT00	XTxx
Workstation 23		
XT23	XIW9	XI23
X023	XT00	XT23

5-1-3 Now generate your (main) schema.

Schema	Workstation 23
X0xx	X023

Internal Use SAP Partner Only

5-2 Now enter the following time tickets for the employee with personnel number 490999XX:

5-2-1 First of all, enter the following premium time ticket for the current period:

Posting date	1st workday in current period
Labor time – confirmed value	8
Labor time – target value	6

The labor utilization rate in the time ticket should now be 75 %.

5-2-2 Now enter the following premium time ticket for the current period:

Posting date	2nd workday in current period
Premium formula	100
Pay scale group	E04
Pay scale level	01
Yield	90
Base quantity	10
Labor time – confirmed value	6
Labor time – standard value	1
Setup time – confirmed value	2
Setup time – target value	3

The labor utilization rate in the premium time ticket should now be 150 %.

5-2-3 Now enter the following time-related time ticket for the current period:

Posting date	3rd workday in current period
Labor time – confirmed value	6

5-2-4 Display the original time tickets in the remuneration statement. Use form XL08. Menu path: ***Human Resources → Payroll → International → Payroll → Remuneration statement***

Enter the following values on the selection screen that appears:

Field	**Value**	**Workstation 23**
Payroll area	X0	
Payroll period	(click the *Current period* radiobutton)	
Personnel number	490999XX	49099923
Form name	XL08	

5-2-5 Now simulate a payroll run for the employee with personnel number 490999XX, and then use form XL09 to display the subsequent time ticket. Menu path: ***Human Resources → Payroll → International → Payroll → Simulation***

Enter the following values on the selection screen that appears:

Field	**Value**	**Workstation 23**
Payroll area	X0	
Payroll period	(click the *Current period* radiobutton)	
Personnel number	490999XX	49099923
Schema	X0xx	X023
Display variant for remun. statement	XL09	

Note: You might have to scroll down the form to see the current period.

What is the difference between this form and form XL08?

In the following exercise, you will create your own personnel calculation rules and implement them in the schema you have just created.

5-3 Implement a personnel calculation rule that fulfills the following specifications:

Rule	Workstation 23
Z3XX	Z323

- The target labor time should be read from the time ticket.
- Then, the hourly wage should be determined from the pay scale table on the basis of the pay scale group and level defined in the time ticket.
- The target labor time and the hourly wage determined should be used to valuate the time ticket.
- Finally, a subsequent time ticket should be created for this time ticket.
- You will need the operations TABLELE, RE510L, and ADDWTM here.

5-3-1 In your schema, replace the rule for processing time tickets in individual incentive wages with your new rule.

In schema	Replace call of rule	With
XIxx	XW8	Z3XX
Workstation 23		
XI23	XW8	Z323

5-3-2 Test your personnel calculation rule.

- Either enter new premium time tickets, or use the time tickets already entered for employee 490999XX.
- Simulate and log a payroll run.

5-3-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- Have the time tickets been valuated correctly?

5-4 Modify the rule from the previously exercise so that the labor utilization rate, based on the confirmation value, is either limited to the maximum permitted rate or supplemented to the minimum required rate in the subsequent time ticket.

5-4-1 Implement the following personnel calculation rule:

Rule	**Workstation 23**
Z4XX	Z423

- Use rule XW11 (capping/supplementing) and XW1M (output) without making any changes.

5-4-2 Test your personnel calculation rule.

- If necessary, first of all enter several premium time tickets with a labor utilization rate that is lower than the minimum LU rate or higher that the maximum LU rate (or use the time tickets already entered for employee 490999XX).
- Simulate and log a payroll run.

5-4-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- The wage type and the actual time are derived from the time ticket. The labor utilization is only derived directly from the time ticket if the rate has not been modified (capped/supplemented).
- Was the LU rate capped/supplemented correctly?
- Have the modified time tickets been valuated correctly?

5-5 Modify the rule from the previous exercise so that modified time tickets are output by other wage types.

5-5-1 Implement the following personnel calculation rule:

Rule	Workstation 23
Z5XX	Z523

- Copy rule XW11 (capping/supplementing) and then just work with your copy.

Rule	Copy	Workstation 23
XW11	11XX	1123

- Above all, you will require the WGTYP operation.
- Output the capped time tickets with wage type ML99 and supplemented time tickets with wage type ML98.

5-5-2 Test your personnel calculation rule.

- If necessary, first of all enter several premium time tickets with a labor utilization rate that is lower than the minimum LU rate or higher that the maximum LU rate (or use the time tickets already entered for employee 490999XX).
- Simulate and log a payroll run.

5-5-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- Capped time tickets must be output with wage type ML99 and supplemented time tickets with wage type ML98.

5-6 In Unit 4 (Customizing), you created a time ticket for target time credits. These target time credits should now be grouped together into a separate wage type and valuated. Modify the rule from the previous exercise accordingly.

5-6-1 Check the Customizing settings of your 'target time credit' time ticket type:

- Target time credits belong to individual incentive wages
- Target time credits are used in payroll

5-6-2 Implement the following personnel calculation rule:

Rule	**Workstation 23**
Z6XX	Z623

- The time ticket type "target time credit" should be valuated and cumulated in wage type ML97.
- Target times are valuated separately for each time ticket using the pay scale group and the master pay scale level in the time ticket.
- Other time ticket types are not to be included.

5-6-3 Test your personnel calculation rule.

- Simulate and log a payroll run.
- If necessary, first of all enter several premium time tickets with LU rates lower/higher than the minimum/maximum LU rate.

5-6-4 Analyze the log for the payroll run.

- Does wage type ML97 output the total of all target time credits accurately? Check this by looking at the log.

Unit: Running Payroll

The same employee (personnel number 490999XX) is always used in the following exercises for running payroll – replace XX with the number of your workstation/course group.

Personnel number	In exercise	Course Group/Workstation 7	Course Group/Workstation 23
490999	490999XX	49099907	49099923

Here is an overview of the names of the objects used in the following exercises:

Object	Exercise	Original	Name	Workstation 23
Personnel number	All	490999XX	490999XX	49099923
Schema	All	X000	X0xx	X023
		XT00	XTxx xx = workstation + 10	XT33
		XIW9	XIxx	XI23
Rule	3	-	Z3xx	Z323
	4	-	Z4xx	Z423
	5	-	Z5xx	Z523
		XW11	11xx	1123
	6	-	Z6xx	Z623

Use the following menu path for processing schemas in the exercises below: ***Human Resources → Payroll → International → Tools → Maintenance Tools → Schema*** (transaction: PE01).

Use the following menu path for processing personnel calculation rules in the exercises below: ***Human Resources → Payroll → International → Tools → Maintenance Tools → Calculation rule*** (transaction: PE01).

5-1 Create your own payroll schema.

5-1-1 To do so, first copy the following schemas:

Schema	**Name**	**Workstation 23**
X000	X0xx	X023
XT00	XTxx	XT33
XIW9	XIxx	XI23

5-1-2 Then, within the schemas, replace the subschema calls as follows:

In schema	**Replace call of**	**With**
XTxx	XIW9	XIxx
X0xx	XT00	XTxx
Workstation 23		
XT23	XIW9	XI23
X023	XT00	XT33

5-1-3 Now generate your (main) schema.

Schema	**Workstation 23**
X0xx	X023

5-2 Now enter the following time tickets for the employee with personnel number 490999XX:

5-2-1 First of all, enter the following premium time ticket for the current period:

Posting date	1st workday in current period
Labor time – confirmed value	8
Labor time – target value	6

The labor utilization rate in the time ticket should now be 75 %.

5-2-2 Now enter the following premium time ticket for the current period:

Posting date	2nd workday in current period
Premium formula	100
Pay scale group	E04
Pay scale level	01
Yield	90
Base quantity	10
Labor time – confirmed value	6
Labor time – standard value	1
Setup time – confirmed value	2
Setup time – target value	3

The labor utilization rate in the premium time ticket should now be 150 %.

5-2-3 Now enter the following time-related time ticket for the current period:

Posting date	3rd workday in current period
Labor time – confirmed value	6

5-2-4 Display the original time tickets in the remuneration statement. Use form XL08. Menu path: ***Human Resources → Payroll → International → Payroll → Remuneration statement***

Enter the following values on the selection screen that appears:

Field	**Value**	**Workstation 23**
Payroll area	X0	
Payroll period	(click the *Current period* radiobutton)	
Personnel number	490999XX	49099923
Schema	X0xx	X023
Form name	XL08	

5-2-5 Now simulate a payroll run for the employee with personnel number 490999XX, and then use form XL09 to display the subsequent time ticket.
Menu path: ***Human Resources → Payroll → International → Payroll → Simulation***

Enter the following values on the selection screen that appears:

Field	**Value**	**Workstation 23**
Payroll area	X0	
Payroll period	(click the *Current period* radiobutton)	
Personnel number	490999XX	49099923
Schema	X0xx	X023
Display variant for remun. statement	XL09	

Note: You might have to scroll down the form to see the current period.

In the following exercise, you will create your own personnel calculation rules and implement them in the schema you have just created.

The basic procedure that you will follow is always the same:

- Create a new rule
- Modify the call in the schema
- Use time tickets already entered or delete existing time tickets and enter new ones
- Run and log payroll
- Check the log to see how the rules have functioned

For this reason, only the procedure for exercise 3 is described in more detail. Bearing in mind the basic procedure described above, solve the following exercises.

5-3 All time tickets recorded in individual incentive wages are to be valuated and then saved as subsequent time tickets.

Implement a personnel calculation rule.

- Start transaction *PE02*, the transaction for maintaining personnel calculation rules.
- Create the rule:

Field	**Value**	**Workstation 23**
Rule	Z3XX	Z323
Employee subgroup grouping	1 (hourly wage earner)	
Wage/time type	****	

- Click the *Create* pushbutton.

Field	**Value**	**Workstation 23**
Rule	Z3XX	Z323
Rule (text)	HR490 payroll exercise 3	
Program class	C	
Country grouping	* (all countries)	

- *Save* your entries.
- Click the *Back* icon to exit the attribute maintenance screen.
- Now choose ***Utilities → Table display.***
- Click the *Change* pushbutton.
- Enter the following rule:

VarKey	NL	T	Operation	Operation	Operation
000010			TABLELE	NUM=BSOW01*	
000020		1	RE510L	RTE=BBETRG*	
000030		2	MULTI NRA	*	
000040		3	ADDWTM		

5-3-1 In your schema, replace the rule for processing time tickets in individual incentive wages with your new rule.

- Proceed as described earlier in the exercise.

5-3-2 Test your personnel calculation rule.

- Either enter new premium time tickets, or use the time tickets already entered for employee 490999XX.
- Simulate and log a payroll run.

5-3-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- Have the time tickets been valuated correctly?

5-4 Modify the rule from the previously exercise so that the labor utilization rate, based on the confirmation value, is either limited to the maximum permitted rate or supplemented to the minimum required rate in the subsequent time ticket.

5-4-1 Implement the following personnel calculation rule:

Rule	Workstation 23
Z4XX	Z423

- Use rule XW11 (capping/supplementing) and XW1M (output) without making any changes.

Rule	Workstation 23
Z4XX	Z423

```
      VarKey NL T Operation Operation Operation
      ------------+---------+---------+---------
000010            D TABLELE   NUM=BRUW01*
000020          1 P PCY XW11  PCY XW1M  *
000030          2   RE510L    RTE=BBETRG*
000040          3   MULTI NRA *
000050          4   ADDWTM
```

5-4-2 Test your personnel calculation rule.

- If necessary, first of all enter several premium time tickets with a labor utilization rate that is lower than the minimum LU rate or higher that the maximum LU rate (or use the time tickets already entered for employee 490999XX).
- Simulate and log a payroll run.

5-4-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- The wage type and the actual time are derived from the time ticket. The labor utilization is only derived directly from the time ticket if the rate has not been modified (capped/supplemented).
- Was the LU rate capped/supplemented correctly?
- Have the modified time tickets been valuated correctly?

5-5 Modify the rule from the previous exercise so that modified time tickets are output by other wage types.

5-5-1 Implement the following personnel calculation rule:

Rule	Workstation 23
Z5XX	Z523

- Copy rule XW11 (capping/supplementing) and then just work with your copy.

Rule	Copy	Workstation 23
XW11	11XX	1123

- Above all, you will require the WGTYP operation.
- Output the capped time tickets with wage type ML99 and supplemented time tickets with wage type ML98.

Rule	Workstation 23
Z5XX	Z523

```
      VarKey NL T Operation Operation Operation
      ------------+---------+---------+---------
000010              TABLELE   NUM=BRUW01*
000020          1 P PCY 11XX  PCY XW1M  *
000030          2   RE510L    RTE=BBETRG*
000040          3   MULTI NRA *
000050          4   ADDWTM
```

Rule	Workstation 23
11XX	1123

```
      VarKey NL T Operation Operation Operation Operation
      ------------+---------+---------+---------+-------
000010            D TABLELE   AMT=BLGRADAMT?KMINZG
000020 *          D AMT?KMAXZG
000030 * *          MULTI ANN NUM/100
000040 * >          AMT=KMAXZGMULTI ANN NUM/100   WGTYP=ML99
000050 <            AMT=KMINZGMULTI ANN NUM/100   WGTYP=ML98
```

5-5-2 Test your personnel calculation rule.

- If necessary, first of all enter several premium time tickets with a labor utilization rate that is lower than the minimum LU rate or higher that the maximum LU rate (or use the time tickets already entered for employee 490999XX).
- Simulate and log a payroll run.

5-5-3 Check the subsequent time tickets in the log.

- There should only be one subsequent time ticket for each original time ticket.
- Capped time tickets must be output with wage type ML99 and supplemented time tickets with wage type ML98.

5-6 In Unit 4 (Customizing), you created a time ticket for target time credits. These target time credits should now be grouped together into a separate wage type and valuated. Modify the rule from the previous exercise accordingly.

5-6-1 Check the Customizing settings of your 'target time credit' time ticket type:

- Target time credits belong to individual incentive wages
- Target time credits are used in payroll

5-6-2 Implement the following personnel calculation rule:

Rule	**Workstation 23**
Z6XX	Z623

- The time ticket type "target time credit" should be valuated and cumulated in wage type ML97.
- Target times are valuated separately for each time ticket using the pay scale group and the master pay scale level in the time ticket.
- Other time ticket types are not to be included.

```
VarKey NL T Operation Operation Operation
       ------------+---------+---------+---------
000010            D TABLELE   VARGBLSTYP
000020 **
000030 Z9           TABLELE   NUM=BSOW01*
000040 Z9       2   RE510L    RTE=BBETRG*
000050 Z9       3   MULTI NRA RTE=0     *
000060 Z9       4   ADDWT ML97
```

5-6-3 Test your personnel calculation rule.

- Simulate and log a payroll run.
- If necessary, first of all enter several premium time tickets with LU rates lower/higher than the minimum/maximum LU rate.

5-6-4 Analyze the log for the payroll run.

- Does wage type ML97 output the total of all target time credits accurately?

Note:
In the rules used in these exercises, no distinction is drawn between time tickets paid on the basis of averages and those paid on the basis of piecework. If you want to make this distinction, however, you can define processing class 46 for all input wage types.

Internal Use SAP Partner Only

Evaluations After Running Payroll

Contents:

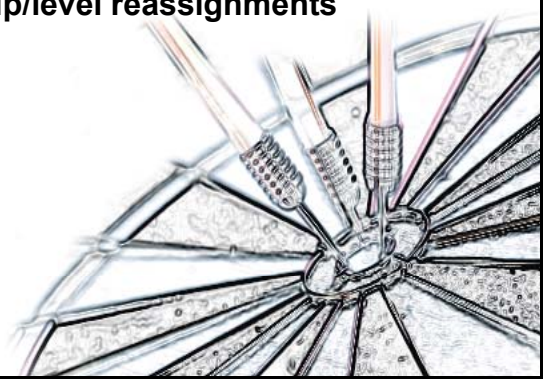
- Supplying Data to Controlling
- The Gross Payroll Form
- Wage Group/Level Reassignments

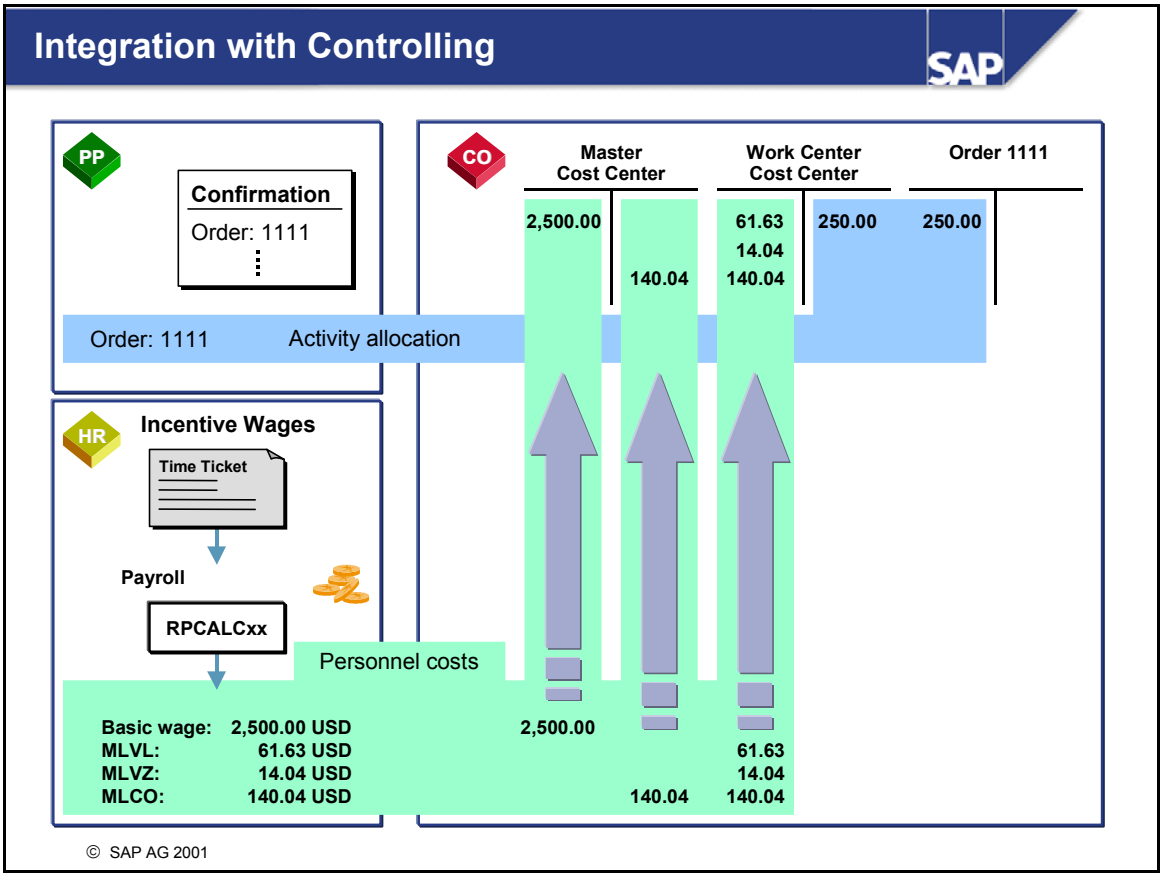
Internal Use SAP Partner Only

Evaluations After Running Payroll: Unit Objectives

At the conclusion of this unit, you will be able to:

- **Explain how the results of Incentive Wages can be passed on to Accounting**
- **Describe the gross payroll form for time tickets**
- **Use the various reports available for proposing wage group/level reassignments**





- Activity allocation in *Controlling* is started by *Production Planning* confirmations. The cost center of the work center is credited and another account assignment object, such as an order, for example, is debited.
- The cost center of the work center is stored in the time ticket during the transfer to Incentive Wages.
- You can also enter an alternative cost center for time tickets that have been created manually in a time ticket (without being transferred from a *Logistics* component).
- You can set up *Payroll* so that the following cost assignments can take place:
  - Cost center entered in the time ticket is debited with extra earnings
  - Master cost center is credited with the basic wage percentage
  - Cost center entered in the time ticket is debited with the basic wage percentage
- Time tickets without a cost center are always debited from the employee's master cost center.
- *Incentive Wages* does not support activity allocation without *Logistics* integration.
- In *HR*, activity allocation can take place using attendance or employee remuneration information - this functionality is separate from that of Incentive Wages.
- The cost accounting split is displayed as an example when subsequent time tickets are being created (see personnel calculation rules XW12, DW22, DW32).This does not have any effect on the primary cost distribution since only statement wage types are involved - and these are not included in gross pay or in cost accounting.

Rule XWCO: Cumulation of Basic Wage

- **Example: Hourly Wages**

```
000010              D TABLELE    VALEN 1    VARGBORIGF
000020 *              RESET K   *
000030 *         1    RTE=   /001TABLELE    NUM=BRUW01MULTI RNA  *
000040 *         2    ZERO= R    ADDNA MLCOELIMI K
000050 T
```


- The basic wage is not posted for time tickets generated in *Human Resources* (origin indicator "T"), since this has already been assigned to the work center cost center by the time evaluation report (**RPTIME**.)
- In all other cases, the basic wage is cumulated taking account assignment information in the wage type MLCO into consideration.
- The wage types MLVL, MLVZ and MLCO are stored with an account assignment split in rules XWVL, XWVZ, XWCO and DWCO. If you call up functions PW1 and PW2 with parameter 3 = "3," the account assignment information contains the company code and cost center of the time ticket (see Unit 8: Running Payroll).
- In the earnings factor example, wage type MLCO is stored with an account assignment split in rule DWCO. The value is a result of the piecework rate of the current month and the actual labor time of the time tickets.

Setting Up Wage Type MLCO

- **Payroll Customizing**
  - **Step: Define Posting Characteristics of Wage Types**
    - "Posting a Wage Type" view (view cluster V_T52EL)

Wage type MLCO **Incentive wages FI/CO WT**

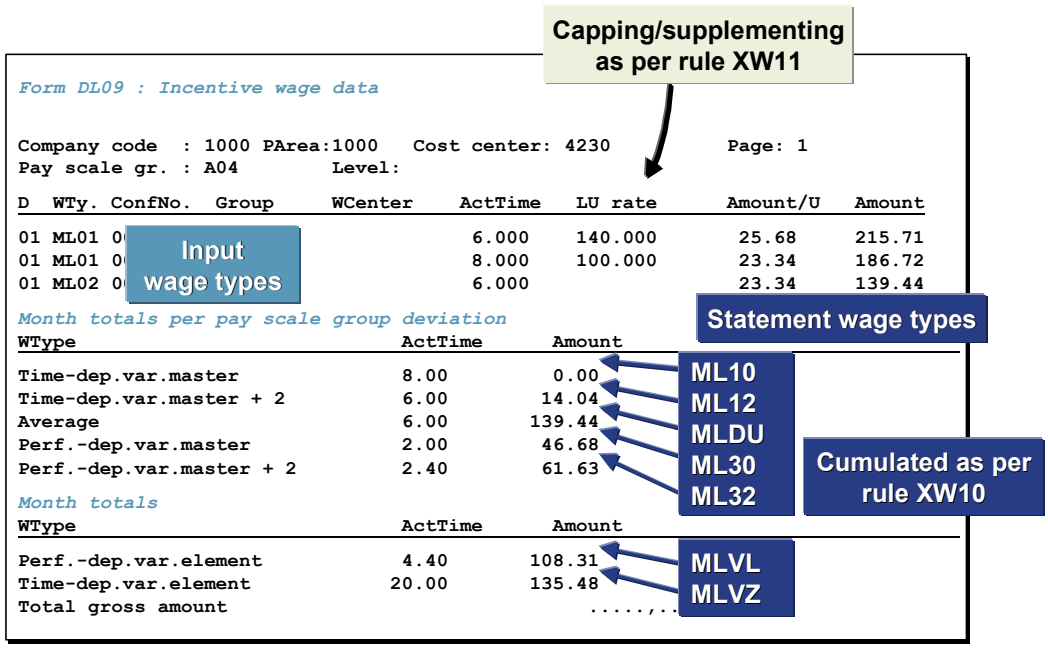
End date 12/31/9999

Posting a Wage Type

	No	V	Prc	SymAc	AATyp	Description of the symbolic account	Ignore Cost Assign
	1	+		1100	C	Wages and salaries	☐
	2	-		1100	C	Wages and salaries	☑

- Wage types that have to be transferred to *Accounting* must be set up appropriately in the V_T52EL view cluster.
- You can post a wage type several times.
- In the above example, wage type MLCO is set up so that the master cost center is credited and the cost center of the time ticket is debited.
- Wage types MLVL and MLVZ are set up so that the debit operation takes the C1 split into account.
- In table T512W, wage types MLAZ, MLVL, and MLVZ are set up so that they are included in the gross pay. Wage type MLCO is only used for transfer postings.
- The course SAP *HR 701 Payroll Reporting* contains much more information on transferring data to the FI/CO components.

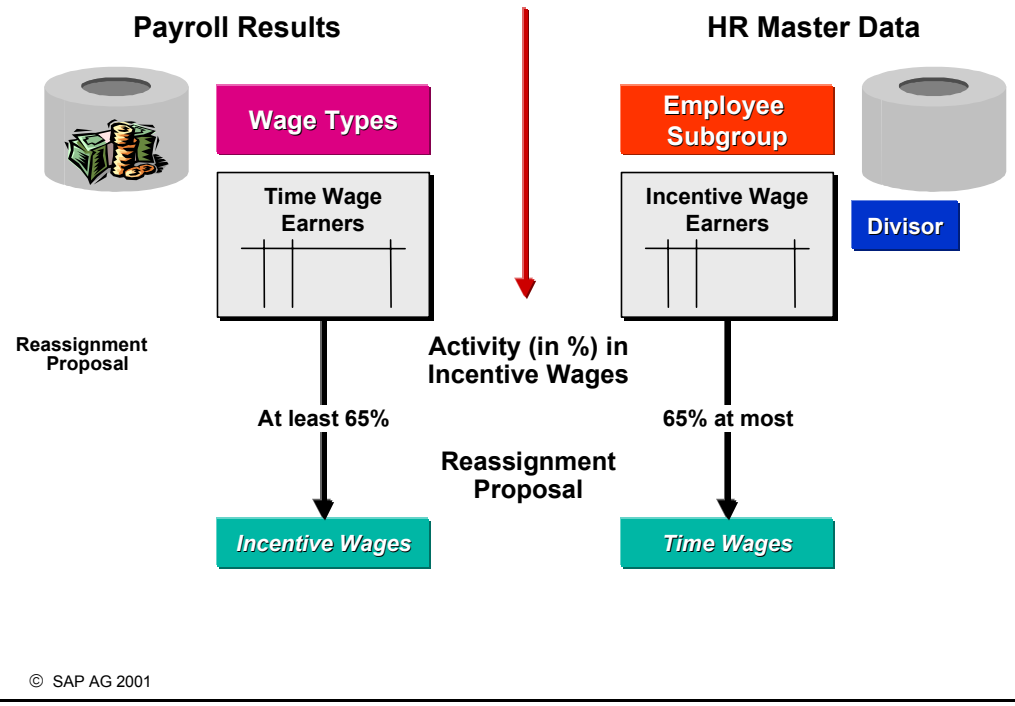
The Gross Payroll Form: Subsequent Time Tickets



- Form DL09 shows the subsequent time tickets that result from the gross part of payroll. Changes made to the labor utilization rate in Payroll (capping or supplementing) are indicated. The valuation of time tickets using monetary amounts is also displayed, as well as cumulated wage types (statement wage types).
- This form is a *remuneration statement*. You can access it by choosing *Payroll* → *Remuneration statement*.
- The SAP course **HR 701 Payroll Reporting** instructs you on how to create and maintain forms.
- You can access the following tables for the form:
  - LE Incentive Wage Time Tickets
  - LS Subsequent Time Tickets
  - GB Group Data
  - GK Group Cumulations

Internal Use SAP Partner Only

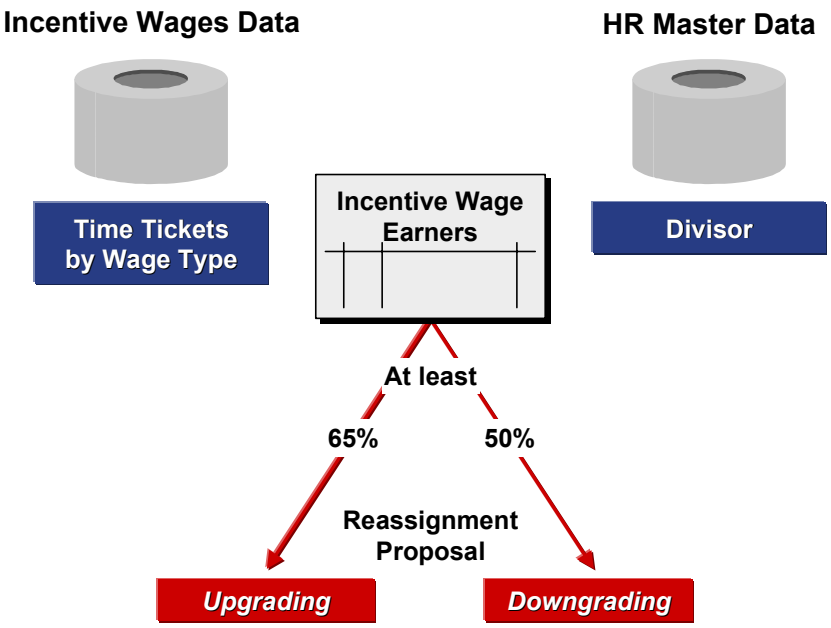
Working Times for Time and Incentive Wage Earners



- This report creates a list of incentive wage earners and time wage earners whose working time within incentive wages either exceeds or falls short of specific percentages during the payroll period. Incentive wage earners and time wage earners are characterized by their respective employee subgroups.
- Incentive wages and time wages are characterized by their wage types.
- The report evaluates the wage types created by the payroll run, however, payroll must already have been run for the employees for the payroll period in question.

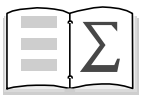
Internal Use SAP Partner Only

Proposals for Wage Group Reassignment



- The report determines whether incentive wage earners should or even must be assigned to a different master wage group in the following payroll period.
- The report evaluates time tickets for the respective payroll period from individual and group incentive wages. For each wage group, the time worked in the wage group is calculated, and the percentage of the employee's time spent working in the wage group is determined. The report then determines the wage group in which the employee worked most.
- If this wage group is higher than the master wage group and its percentage is greater than the minimum percentage required for an upgrade, then a corresponding message is displayed for that employee. The procedure is the same if the wage group is lower than the master wage group. If neither applies, even though the employee has worked more than 50% of the time in a wage group that is higher or lower than the master wage group, then the applicable message "Upgrade possible" or "Downgrade possible" is displayed for that employee.
- You can use the "wage type" selection criterion to determine which time tickets are to be evaluated. Time tickets are only evaluated if their wage type meets the selection criterion.

Evaluations After Running Payroll: Unit Summary



- If Logistics is integrated with HR, activity allocation occurs in Logistics - cost assignment is performed by Payroll and its follow-up programs.
- Both the time tickets valuated in Payroll and various other wage elements are output on the gross form for subsequent time tickets.
- Employees who document their working times by means of time tickets can be reassigned to different employee subgroups and wage groups.