SAP Payroll Schema. Functions , Rules and Operations – An overview

The area most often overlooked when training people on SAP Payroll is the basic, fundamental meaning and usage of payroll schemas, rules, wagetypes and their associated processes.

We will try to correct that. First, we will present an overview of the basic parts of the payroll process, then in subsequent articles we'll go into more detail on each one. Not every possibility will be covered - that would be a multi-volume hard-back series of books, not an easily read web-based article. But we will cover the basics in a way that gives you a good understanding of SAP schemas and rules - from there you can use that knowledge base to learn as much as you want about the rest of this subject.

SCHEMAS AND FUNCTIONS

In SAP Payroll, functions provide the high-level logic for payroll calculations. Functions perform general processing - such as calculating payroll taxes on a given set of wages, reading wagetypes from specific infotypes, calculating benefits premiums, and storing the results of the payroll calculation. There are dozens of functions in SAP payroll, some are country-specific and others are not. Each function is defined and documented via transaction PE04; you can also view the function documentation via transaction PDSY in releases 4.5 and greater, or with report RPDSYS00 in earlier versions.

In SAP HR terms, a payroll function is not the same as an ABAP function. A payroll function does consist of ABAP code, but it is not executed in the same way an ABAP function would be. Payroll functions are executed within a schema by the payroll driver program (let's assume RPCALCU0).

A schema is just a collection of functions executed in a specific order - each one passing its results on to the next. Schemas are always created and edited via transaction PE01, but are actually stored as a collection of rows in tables T52C0 (SAP standard schemas) and T52C1 (customer-created schemas and modified SAP-standard schemas). The payroll driver reads the lines in T52C0/T52C1 and executes the functions one by one.

So how do we make the leap from a payroll function stored in a table to the execution of ABAP code to get the work done? In transaction PE04 you can see the ABAP code associated with every function. The function name in the schema correlates to an ABAP form - for example payroll function WPBP maps to the ABAP form 'fuwpbp'; function USTAX maps to form 'fuustax'. So when the payroll driver is executing the schema, it takes the function name from the current row in schema, puts an 'fu' on the beginning of the name, and then does a 'perform' statement on it. It's a very simple and elegant design.

WAGETYPES

In a broad sense, a wagetype simply holds a piece of data - a rate, number, and/or amount. But more specifically, a wagetype has dozens of attributes that control how it is manipulated and processed. In the end though, it ends up as an object in the payroll results database that stores a rate, number, and/or amount.

The most typical use of a wagetype is to store the amounts of earnings, deductions and taxes in an employee's paycheck. A person's base pay is stored in a wagetype, the amount of their United Way deduction is stored in a wagetype, and their taxable wages & taxes are stored in wagetypes. Wagetypes, as the primary data element for employee paychecks, are also mapped to FI/CO accounts to record the debits and credits resulting from the paycheck and reported on the W-2 and other tax forms.

Wagetypes can also be used to store statistical data - such as the number of hours worked in a pay period, the average weekly wages for the past six months, or the amount of wages eligible for a profit sharing calculation. Wagetype attributes are stored in several tables, but the central table is T512W. Much more time will be spent on various aspects of T512W.

There are three categories of wagetypes - model, technical, and user. Model wagetypes are delivered by SAP for customers to use as guidelines for creating their own wagetypes. They always start with a letter and SAP may add, delete or update them in system upgrades or HRSP's. Technical wagetypes always start with the '/' symbol, and are delivered by SAP. They are intended for very specific standard processing in payroll, and while you can modify them, SAP may also update them during upgrades or HRSP's. So if you ever (I mean EVER) change a technical wagetype, check it after each upgrade or HRSP to make sure it still has the attributes you want. And never delete a technical wagetype. User wagetypes always start with a number - and these are wagetypes that SAP does not change during upgrades & HRSP's. OK, SAP rarely changes them in upgrades and HRSP's. User wagetypes are for all the company-specific payroll payments and deductions.

RULES AND OPERATIONS.

A long-time client of ours once created a screen-saver message that stated 'Payroll Rules!'. Those of us who were experienced SAP Payroll analysts or consultants immediately saw the double meaning, and corny humor, in that message. Rules contain the most basic logic used in SAP Payroll. Where a schema is a collection of functions, a rule is a collection of operations. An operation is a very basic piece of logic that is used, mostly, to manipulate wagetypes. For example, operation MULTI multiplies the number and rate fields of a wagetype to determine the amount to pay an employee. Operation OUTWP retrieves specific data about an employee so that another operation can make a decision on how to process it. For example, if the work contract on infotype 1 is UA then do 'x', if it is UB then do 'y', otherwise do 'z'.

Operations can also be viewed in transactions PE04 and PDSY, and are edited with transaction PE02. Where a function's ABAP equivalent form starts with 'fu', an

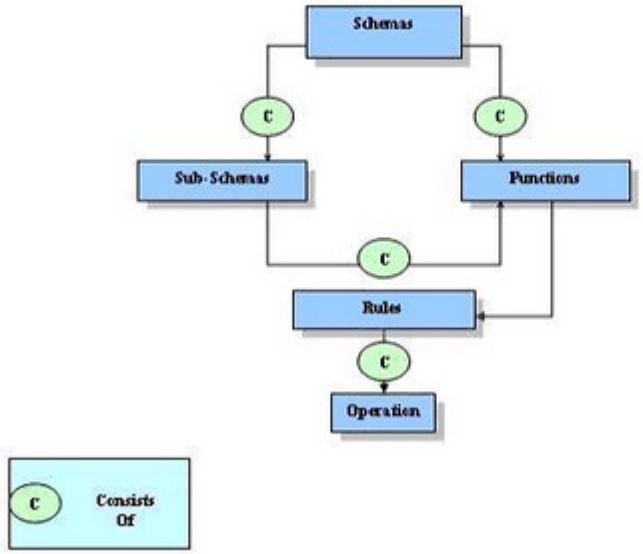
operation's ABAP form starts with 'op'. For example, operation MULTI would have an ABAP form 'opmulti'. Rules, like schemas, are stored in a table - rules are stored in T52C5.

The more senior SAP consultants who have been working with computer systems for many years often find similarities between payroll rules and programming mainframe computers in Assembly language. While there is nothing fancy about operations, when used correctly together they can be very powerful.

Hopefully we've presented a good but brief overview that makes sense. In our next SAP Payroll Technical Basics article we will get into more detail on the common functions used in SAP's payroll schema.

How to read rules and Schemas

1.Structure of relationship in Rules and Schemas:
a)Schemas consist of Functions and Sub-schemas
b)Some functions have the rules attached to it as one of its parameter
c)Rules consist of a set of operations to perform some actions
d)Operations and Functions are the executable components



As per the diagram Set of Operations make a Rule which in turn attached to some functions and those functions embedded in Schemas or Sub-schemas (Inside the main schemas) to decide the flow of the payroll program.

Structure of a Schema:

Func: This column is used to give a function name.
Par1, Par2, Par3, Par4:
1. Function has maximum four parameters.
2. The function can have zero to four parameters as per the definition of the function.
3. Pressing F4 we can get the list of all the values which can be used as parameters.
4. For some functions in the first parameter is the name of the rule created.
5. These parameter values are predefined the function is being created.
D:
1. This column is used to comment and uncomment a function.
2. If (*) is being put then the line is commented and will not be executed in Payroll processing.
3. If nothing is given then the line would be executable.
Desc
1. In this column description for the function is being used.

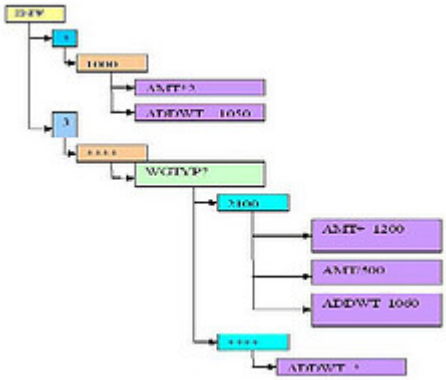
Functions: Functions are used for;
• Performing some payroll computations (E.g. INEPF function calculates the PF amount of an employee during payroll run)
• Calling rules (E.g. P0045 function calls a rule INLN to compute the loan details of a personnel number).
• Getting data from Infotypes (E.g. P0581 will get the data from Infotype-581 for payroll processing).
• For some decisions. (E.g. IF & ENDIF function is used to execute as per the true and false decisions) etc.

Rules:
Rules are used for holding a set of operations for a particular requirement to be accomplished.

Attributes:
1. Program Class.
a. There are two program classes to be assigned to the rule while creating.
i. Payroll (C).
ii. Time (T).
2. Country Grouping.
a. For Payroll program class the country grouping should be mentioned. (E.g. 40 for India).
b. For Time management rule the country grouping should be (*).
3. Employee Sub-grouping.
a. All the wagetypes have an attribute of employee sub-grouping.
b. It varies client to client.
c. Value 3 means EE sub-grouping is 3.

d. Value * means all EE Sun-groupings.
4. Wagetypes.
a. The wagetype in the internal table which is meant to be processed by the rule.
b. If a value for Wagetype is being given then the particular wagetype is being queried for processing.
c. If **** has been given then all the wagetypes present in the particular internal table will be processed.

Structure of the Rule.



Frequently Used Internal Tables in PY Processing:

The Payroll driver uses lots of internal tables used for storing data temporarily in the program for processing. Some of the important internal tables are:

Internal Table Name	Purpose	Function Used to access the Internal tables
IT (Input table)	To store the Wage types and its various attributes temporarily in the program.	PIT
RT (Results Table)	To store the wagetypes and its attributes and updates the cluster table PCL2 as per it's indexity.	PRT
CRT (Cumulative Results table)	To store the cumulative data till the previous payroll run. Also stores the current results and updates the amounts in PCL2 cluster.	PCRT
ORT (Old Results table)	To get the Old results table data into the current payroll run, mostly for retroactive accounting purpose.	PORT
DT (Differences table)	To store the difference in the amount in case of retroactive accounting between current and previous amounts of the wagetypes.	PDT

The structure of internal tables:

EE Sub-grouping	Wagetype	Wagetype Description	NUM	RTE	AMT
EE sub-grouping assigned for the wagetype	Wagetype code	Wagetype description	Split indicator	Rate for different purpose for calculation	Amount for the wagetype
3	1000	Basic Pay	01		10,000.00
3	1000	Basic Pay	02		5,000.00
*	1005	Additional Basic	01		2,000.00
*	HRA	Projection Factor	01	10	

Legend:
- Names of the columns of the structure.
- Description of the columns.
- Sample values.

EE Sub-grouping:
1. The Wagetype is assigned to a particular Employee sub-group.
2. 3 is a particular employee subgroup for basic pay wagetype.
3. * value means for all EE sub-grouping.

Wagetype Code:
1. The Wagetype code number is the number assigned to a particular pay component.

Wagetype Description:
1. The description for the wagetype code.

NUM:
1. If there is a split for the wagetypes then this NUM field will make them different.

2. If A person's basic salary is changed in the mid of the month then the wagetype will be split in two amounts with NUM = 01 and NUM = 02.

RTE:

1. The RTE column stores a value for;
a. Rate of interest.
b. Number of leave days.
c. Projection factor. Etc.
2. E.g. In the above diagram /401 wagetype has RTE value 10 which is the projection factor used for different calculations.

AMT:

1. This column possesses the amount of the particular wagetype.

Use of the internal tables:

1. The internal tables are being used for calculations on the NUM, RTE & AMT fields.
2. These internal tables are being read by the rules row by row.
3. The Calculation rule would be only processed for those wagetypes which are specified in the rule's source code.
4. The row in the internal table containing the wagetype which has been defined in rule attributes will be placed in the header of the internal table for processing.
5. The processing would be as per the operations used in the rule.

Some important Operations & Functions:

- The editor for Operations and Functions is PE04.

• While the payroll driver encounters a function and operation it would call a subroutine written in the payroll driver.
• The subroutine name for the operation will be OP****, Where **** will be the name of the operation.

- For E.g. for Operation AMT the subroutine name would be OPAMT.

• The code written for the function will be found as a subroutine in payroll driver as FU****, where **** will be the name of the function.

- For E.g. for function INEPF the subroutine name would be FUINEPF.

Operations:

AMT:

1. This Operation would fetch the Amount of the wagetype queried in the rule, in the Variable AMT for processing.
2. The Syntax of the Operation is ZZZOVVVV.
3. ZZZ -> AMT.
4. O -> Operand.
5. VVV -> Value or Variable.

6. For E.g. (AMT= 1000) will fetch the Amount of Wagetype 1000 into AMT.
7. Pressing F1 on the AMT Operation will provide the documentation.

RTE:
1. This Operation would fetch the Rate of the wagetype queried in the rule, in the Variable RTE for processing.
2. The Syntax of the Operation is ZZZOVVVV.
3. ZZZ -> RTE.
4. O -> Operand.
5. VVV -> Value or Variable.
6. For E.g. (RTE= /401) will fetch the Rate of Wagetype /401 into RTE.
7. Pressing F1 on the RTE Operation will provide the documentation.

NUM:
1. This Operation would fetch the Split indicator of the wagetype queried in the rule, in the Variable NUM for processing.
2. The Syntax of the Operation is ZZZOVVVV.
3. ZZZ -> NUM.
4. O -> Operand.
5. VVV -> Value or Variable.
6. For E.g. (NUM= 1000) will fetch the Split indicator of Wagetype 1000 into NUM.
7. Pressing F1 on the NUM Operation will provide the documentation.

ADDWT:
1. This Operation will append one more row in the internal table (Processed by the rule).
2. After calculating an amount from a particular wagetype the amount can be assigned to another wagetype and append to the internal table.
3. For E.g. ADDWT 2050 will add the NUM, RTE, AMT calculated to the NUM, RTE & AMT of the wagetype 2050.
4. If the Wagetype 2050 is not there before in the internal table then NUM, RTE & AMT would be 0.
5. If any value of these three variables are present before then they will be added to the calculated ones.

Functions:

PIT:
1. This function will read the internal table IT (Input table).
2. The function will hold a rule as first parameter.

PRT:
1. This function will read the internal table RT (Results table).
2. The function will hold a rule as first parameter.

PDT:
1. This function will read the internal table IT (Input table).
2. The function will hold a rule as first parameter.

PORT:
1. This function will read the internal table ORT (Old results table).
2. The function will hold a rule as first parameter.

P0014:
1. This function will read the Infotype 0014 for processing.
2. The function will hold a rule as first parameter.

N.B.
The documentation for all the Operations and Function is being provided, which can be viewed in PE04 (Editor for Operation and Function).

Few examples and live scenarios on writing PCRs related to Time schema.

Scenario. 1

The employees in a company accrues 2.5 days of Privilege Leave (PL) per month . But if they go on Unpaid leave (Ex: Education leave) or there is unrecorded absences the accrual entitlement has to be reduced. Actually if there is more than 10 days of Unpaid Leave and Unrecorded absences per month then the PL earned by an employee during the month is 0 else it is 2.5 Days

Environment

The organization has gone in for HR-Positive time keeping with clock-times and every employee has specific shift on any given day . The HR team runs time evaluation on a daily basis which basically compares the employee's planned work schedule with actual attendance and decides on the employee's attendance status . If there is no information from the employees on a working day the system marks him/her unrecorded absence. Also if there is authorized Unpaid leave (Study Leave) the HR Team enters the leave data in to the system

Implementation steps

Set Up Leave Type - Education Leave as Unpaid leave and PL

Set up Time types

Set up PL Quota Configuration

Write PCR for Populating

Solutions Description

Configure Leave types :

IMG Path: Personnel Time Management–>Time Data Recording and Administration–> Absences–>Absence CatalogàDefine Absence Types

Table : V_T554S

Following Leave types needs to be configured:

Absence type Code : 0100

Description Privilege Leave

Absence type Code : 0401

Description Study Leave

Determine Entry Screens and Time constraint classes

IMG Path: Personnel Time ManagementàTime Data Recording and Administration àAbsencesàAbsence CatalogàDetermine entry Screens and Time constraint class

Table : V_554S_O

Following Leave types needs to be configured:

Absence type Code : 0100
Screen Number 2001
Att/Abs Indicator A
Absence type Code : 0401
Screen Number 2000
Att/Abs Indicator A

Absence Counting rules
IMG Path: Personnel Time ManagementàTime Data Recording and Administration àAbsencesàAbsence CatalogàAbsence CountingàRules for Absence counting(New)àDefine Counting rules
Table : T556C
Following Counting rules needs to be configured:
Counting rules : 100
Description Counting rule for PL
Week Days Check all the days
Day Types Check all Day types
Holiday classes Check all Holiday classes

Counting class for PWS Check all the Counting classes
Daily Work Schedule class Check all
Planned Hours=0 Check
Planned Hours > 0 Check
Condition for ATt/Absence Check only Full Day
Counting Hours/Days Quota Multiplier (100%)
Rounding Rule ZA

Counting rule : 401
Description Counting rule for Study Leave
Week Days Check all the days
Day Types Check only Day type=0
Holiday classes Check only Holiday class = 0
Counting class for PWS Check all the Counting classes
Daily Work Schedule class Check all
Planned Hours=0 Do not check
Planned Hours > 0 Check
Condition for ATt/Absence Check < 1 day as well as Full day
Counting Hours/Days Quota Multiplier (100%)
Rounding Rule ZA

Assign Counting rules to Absence types

IMG Path: Personnel Time Management–> Time Data Recording and Administration –> AbsencesàAbsence Catalog–>Absence Counting–>Assign counting rules to absence types
Table : T556C
Counting rules need to be assigned to Absence types
Absence type 0100
Counting rules : 100
Check ‘Quota Deduction’ Check box
Absence type 0401
Counting rule : 401
DO NOT check Quota deduction check box

Define Absence quota Types

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Time Quota Types–>Maintain Absence quota Types
Table : V_T556A
Create Absence Quota Types
Absence quota type 10
Description Privilege Quota

Permit Generation of Quotas in Time Evaluation

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Calculating Absence quota entitlements–>Automatic accrual

of Absence quotas
Table : V_556A_B
Absence quota type 10
The Radio-button ‘Increase’ needs to be checked

Configure time types :
IMG Path: Personnel Time Management–>Time Evaluation–>Time Evaluation settings–> Define Time types
Table : V_T555A
Following time type needs to be configured:
Time type Code : 9P01
Description PL Quota Accrual Multiplier
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P18
Description Unrecorded Absences During Planned Working Hrs
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P22
Description Late Coming Hours
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P23
Description Early going hours
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P24
Description Unrecorded Gaps other than Late Coming / Early Going
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P26
Description Late Coming Hours(Processed)
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P27
Description Early going hours(Processed)
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P28
Description Unrecorded Gaps other than Late Coming / Early Going (Processed)
Cumulate Day Balance 1
Cumulate Period Balance 1
Time type Code : 9P35
Description Total Unpaid absence in Days
Cumulate Day Balance 1

Cumulate Period Balance 1
Time type Code : 9P36
Description Total Unrecorded absence in Days
Cumulate Day Balance 1
Cumulate Period Balance 1

Set Base Entitlements

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Calculating Absence quota entitlements–>Rules for Generating Absence QuotasàSet Base EntitlementsàBase Entitlement for Absence quota generation
Table : V_T559E
Absence quota type 10
Entitlement (Constant) 2.5 Days
Related to Period Time Evaluation Period

Determine Validity & Deduction Period

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Calculating Absence quota entitlements–>Rules for Generating Absence QuotasàDetermine Validity & Deduction period
Table : V_T559D
Absence quota type 10
Validity From Time Evaluation Period - Start
Validity End Time Evaluation Period-End
Deduction From Date Validity End + 1 Day
Deduction to Date Validity End + 999 Months

Define Generation Rules for Quota Selection

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Calculating Absence quota entitlements–>Rules for Generating Absence QuotasàDefine Generation rules for Quota Selection
Table : V_T559L
Absence quota type 10
Accrual Period Time Evaluation Period
Accrual Entitlement

Multiplication with Time Balance

Period Balance 9P01 (Time Type)
Transfer Time Upon Accrual

Define Quota Deduction rules

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Quota Deduction using attendance/Absence–>Define Deduction rules Using Attendance/Absence QuotasàDefine Deduction rules using Absence quotas
Table : V_556R_B

Deduction Rule 100
Absence Quota Type 10
Other Data can be the default values

Assign Deduction rules to Counting rules

IMG Path: Personnel Time Management–>Time Data Recording and Administration –>Managing time accounts–>Quota Deduction using attendance/Absence–>Define Deduction rules Using Attendance/Absence QuotasàAssign Deduction rules to Counting rules
Table : T556C
Counting Rule 100
Deduction rule 100

Describe Absence Valuation rules

IMG Path: Payroll International–>Absences–>Describe Absence Valuation rules
Table : V_T554L
Create two Valuation rules as follows :
01 Paid Leave
02 Unpaid Leave

Group Absences for Valuation

IMG Path: Payroll International–>Absences–>Group Absences for Absence Valuation
Table : V_554S_G
Following configuration needs to be done

LeaveType	Description	Valuation Rule
0100	Privilege Leave	01
0401	Study Leave	02

Create Counting classes for Absence Valuation

IMG Path: Payroll International–>Absences–>Valuation of Absences–>Create Counting classes–>Define Counting classes
Table : V_T554E
Following configuration needs to be done

Counting class	Description
01	Paid Leave
02	Unpaid Leave

Setup Counting classes for Absence Valuation

IMG Path: Payroll International–>Absences–>Valuation of Absences–>Create Counting classes–>Set up counting classes for Absence valuation
Table : V_T554C

Following configuration needs to be done

AbsValGrpg	Valuation Rule	CC for Absences	Paid (Check Box)	Percentage
01	01	01	Check it	100%
01	02	02	Do not Check it	100%

Write following rules for PL Accrual

Rule ZI01:

This rule is written to compute the Unpaid absence days and store the same in Time type 9P35. In this context whenever an employee avails leave under leave type 0401 these leave days are stored in time type 9P35.This rule should be called by the function PTIP.(Refer Scenario 1)

VAKey	NL	T	Opn1	Opn 2	Opn3	Opn4	Opn5
		D	COLOP*	OUTTPABTYP			
*							
**							
***							
****							
0401			HRS/S	ADDDB9P35			

The rule should be called as follows:

PTIP ZI01

Rule ZI02

This rule moves the unrecorded Absences to 9P36 from 9P63 .(Please refer Scenario 1)

VAKey	NL	T	Opn1	Opn 2	Opn3	Opn4	Opn5
			HRS=D9P63	ADDDB9P36Z			

This rule should be called as follows :

ACTIO ZI02

Rule ZI06

This rule is written to compute and Populate the time type 9P01 (PL Quota Multiplier). If period Balance of 9P35 and 9P36 is less than or equal to 10, the rule should move 1 to 9P01 else move 0 to 9P01

VAKey	NL	T	Opn1	Opn 2	Opn3	Opn4	Opn5
			HRS=D9P35	HRS+D9P36	HRS+M9P35	NEXTR	
	1	D	HRS+M9P36	HRS?10			
*			HRS=0	ADDDB9P01Z			
<			HRS=1	ADDDB9P01Z			

This rule should be called by function ACTIO and should be called just before CUMBT function

Scenario.2

Unrecorded Absences(Late Coming / Early going hours)

The employees have a specific planned work schedule and they need to clock-in to the work place at a particular time and are supposed be in the work spot for a specific number of working hours . If an employee clocks-in later than the planned start time , then he should be penalized for 'Late-Coming' and if an employee clocks-out earlier than the planned work end time then he should be penalized for 'Early going'. However there are physically challenged employees who are allowed to clock-out earlier than the planned end time for a specific number of minutes . The penalty for Late-coming or Early-going is not exactly the number of minutes the employee clocked-in late or clocked-out early , but rounded as per the business rules of the Organization. The penalty is in the form of deducting amount from the salary in Payroll , proportional to the 'Late Coming' / 'Early Going' minutes/ hours .

Environment

The organization has gone in for HR-Positive time keeping with clock-times and every employee has specific shift . The HR team runs time evaluation on a daily basis which basically compares the employee's planned work schedule with actual attendance and decides on the employee's attendance status .

Technical Interpretation

The employee's time events are compared with the planned start time and planned end time of the scheduled shift . The time pairs are formed by the system on this basis . Whenever the unrecorded time pair exists with the start time of the time pair as same as start time of the planned shift then the duration of such time pair can be designated as Late Coming Hours . Similarly Whenever the unrecorded time pair exists with the End time of the time pair as same as End time of the planned shift then the duration of such time pair can be designated as Early Going Hours

Solutions Description

Configure time types :

IMG Path: *Personnel Time ManagementàTime EvaluationàTime Evaluation settingsà Define Time types*

Table : V_T555A

Following time type needs to be configured:

Time type Code : *9P18*

Description *Unrecorded Absences During Planned Working Hrs*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P22*

Description *Late Coming Hours*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P23*

Description *Early going hours*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P24*

Description *Unrecorded Gaps other than Late Coming / Early Going*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P26*

Description *Late Coming Hours(Processed)*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P27*

Description *Early going hours(Processed)*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P28*

Description *Unrecorded Gaps other than Late Coming / Early Going (Processed)*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Time type Code : *9P63*

Description *Temporary Time type used as variable*

Cumulate Day Balance *1*

Cumulate Period Balance *1*

Configure Rounding Rule

IMG Path: *Personnel Time ManagementàTime Data Recording and Administrationà Absencesà Absence Catalogà Absence Countingà Rules for absence countingà DefineRounding rules for counted absences*

Table : V_T559R

Rule	Name	Seq No	Lower Limit	Include Flag	Upper Limit	Include Flag	Target Value	Roll
ZN	Late Coming Rounding Rule	001	0		0.5	Y	0.5	
ZN	Late Coming	002	0.5		1.0	Y	1.0	

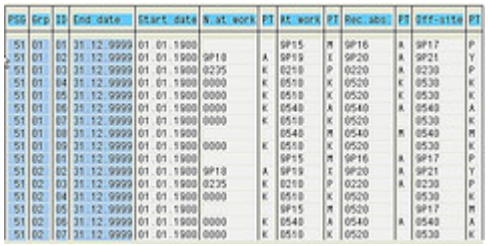
	Rounding Rule							

Set Time type determination

IMG Path: *Personnel Time ManagementàTime EvaluationàTime Evaluation with clock timesà Time data processingà Set Time Type Determination*

Table : V_T555Z

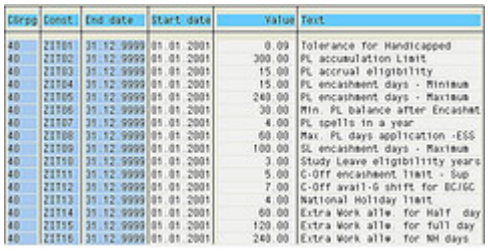
The time type 9P18 has been configured as Unrecorded absence during planned working hours



Configure Maximum Early Going hours for Handicapped employees

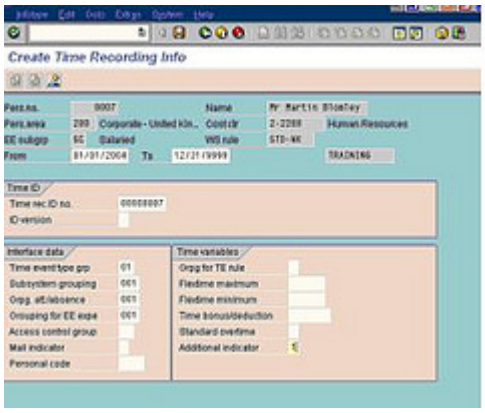
(Payroll Constant : ZIT01)

IMG Path: *Personnel Time ManagementàTime EvaluationàTime Evaluation with clock timesà Time in lieu & split leave à Maintain Constant*



Maintain Master data for Handicapped employees

For handicapped employees through Master data maintenance ‘Additional Indicator’ in Infotype 50 need to be maintained as ‘1′ .



Write following rules for computing the Late coming / Early going / Unrecorded gaps

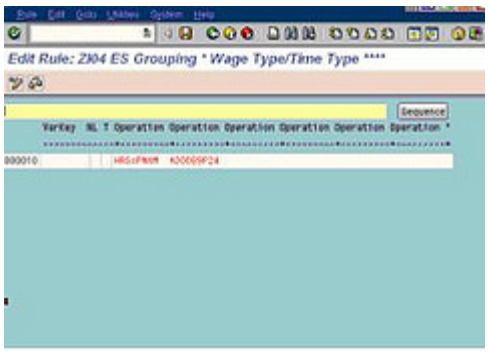
Rule ZI03:

This rule is written to segregate the Late coming . Early going and other unrecorded gaps separately and also move the late coming hours to the time type 9P22. If the pair is early going pair the rule branches off to sub rule ZI05 and if the pair is unrecorded gaps then the rules branches off to sub rule ZI04

This rule is called by the function PTIP .

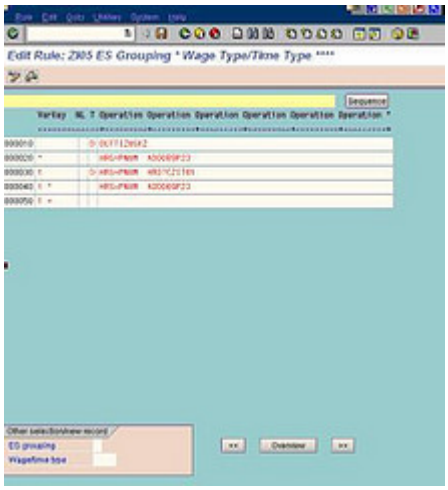
Rule ZI04

This rule moves the unrecorded gap hours to the time type 9P24.This rule is called by the rule ZI03



Rule ZI05.

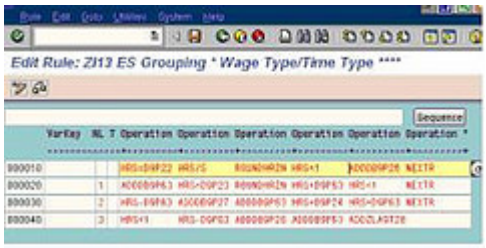
This rule basically computes the early going hours . For handicapped employees this rule checks against the allowed limit of early going hours by looking at the Payroll constant ZIT01 . If the actual early going hours is less than the allowed hours then the early going is ignored else the hours of the time pair is passed onto the time type 9P23 .This rule is called by the rule ZI03



Rule ZI13

This rule rounds off the late coming and early going hours and also ensures that sum of Early going , Late coming and unrecorded gaps does not exceed the planned working hours .The rounded and processed Late coming Days, Early Going days and Unrecorded gap days are stored in the time types 9P26, 9P27 and 9P28 respectively. Finally sum of 9P26, 9P27 and 9P28 is passed on to the time wage type 9T28 for deduction of salary in Payroll.

This rule is called by the function ACTIO



Both these rules (ZI03 and ZI13) should be called in schema TM00 after the function TIMTP.