Applies to:
SAP HCM \ HR. For more information, visit the Enterprise Resource Planning homepage.

Summary
Personnel Calculation Rule and Schemas are the basis for Payroll Calculation and Time Evaluation. This document describes in detail the aspects of Personnel Calculation Schema and Rules.

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Table of Contents

Introduction .........................................................................................................................................................3

  Process flow for Schemas and Rules .............................................................................................................3
  Personnel Calculation Rules ...........................................................................................................................3
  Working with Personnel Calculation Rules ......................................................................................................3

Personnel Calculation Schema ..........................................................................................................................7

  Working with Schemas ...................................................................................................................................8
  Schema Explained ..........................................................................................................................................10

Parametres .......................................................................................................................................................11

Functions and Operations....................................................................................................................................12

  Functions .......................................................................................................................................................12
  Operations .....................................................................................................................................................12
  Custom Functions and Operations .................................................................................................................12

Related Content ................................................................................................................................................13

Disclaimer and Liability Notice ..........................................................................................................................14
Introduction
Schemas and Rules form the basis for calculating Payroll and Time Evaluation.

Process flow for Schemas and Rules

Schemas call a Sub – Schema or a Rule using a Function.
Sub – Schema is a Schema on its own, when included in a Schema it's called a Sub – Schema.
Rules in turn do the calculations using the Operations.
SAP has delivered Functions and Operation to meet all the scenarios, in case the available Functions or Operations doesn't meet any of the requirements, it's possible to create custom Function and Operation

Personnel Calculation Rules
Rules are collections of operations. Using operations Rules perform the basic calculations for payroll or time evaluation
Rules can be of two groups. One group takes a decision and the other group manipulates the wage types.

Working with Personnel Calculation Rules
Rules can be created, modified and viewed in Transaction Code PE02
Personnel Calculation Rule and Schema – An Understanding

**Personnel Calculation Rules: Initial Screen**

- Copy an existing PCR
- PCR view – Table or Tree Structure
- Name of the PCR
- Used to create a new PCR
- Source Text will allow you to edit the PCR
- EE sub group grouping for which the PCR is applicable
- Wage Type for which the PCR is applicable
- Attributes of the PCR
- Documentation for the PCR

**Attributes of the PCR**

**Display Rule: Attributes**

- **Rule:** ZST1, Personnel Calculation Rule ZST1
- **4 character alpha numeric name**
- **Attributes**
  - Program class: T, Time management
  - Country grouping: * All Countries
  - Person responsible: SAP User
- **SAP User**
  - Time: [ ] Changes only by person responsible
  - Date
  - SAP
  - Date
  - Time

- **Detailed Description**
  - ‘T’ for TM & ‘C’ for PY
  - Country Grouping
  - SAP User

**Administrative info**

- Created on
- Last changed by
  - On
  - At
PCR's can be handled in two different formats

Personnel Calculation Rules: Initial Screen

This will help to view and modify the PCR in Tree Structure

Rule: TMOD - Determining Table Modifiers

Subobjects:
- Source text
  - ESGrp grouping
  - Wage/time type
- Attribute
- Documentation

Display calculation rule: TMOD

TMOD - Determining Table Modifiers

- ****
  - PAYTP A: Set ESG for PCR
- ****
  - MODIF T=02: Set modifier
  - MODIF W=01: Set modifier
**Personnel Calculation Rules : Initial Screen**

This will help to view and modify the PCR in Table Format

<table>
<thead>
<tr>
<th>Rule</th>
<th>TMOD</th>
<th>Determining Table Modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>000010</td>
<td>MODIF T=C2MODIF W=C1</td>
<td></td>
</tr>
</tbody>
</table>

**Display Rule: TMOD ES Grouping 1 Wage Type/Time Type ****

Finally write the documentation
Personnel Calculation Schema

Schema is a set of instructions on how to calculate Working Time \ Payroll. These instructions are grouped in a sequential manner.

Schema is a collection of Functions executed in a specific order

Schema consists of, Sub – Schemas and Personnel Calculation Rules queried using Payroll Functions.

Schemas will be called for Time or Payroll calculation by the respective programs

**RPTIME00 will call the Time Schema**

**Parameters for time evaluation**

- Evaluation schema: TM30
- Time statement variant: SAP&TEDT
- Layout for log
- Forced recalculation as of
- Evaluation up to

**Program options**

- Display log
- Test run (no update)
- Stop all function/operation BREAK
- Stop all fixed positions in time evaluation

Schema to be selected from the drop down list
RPCALCxx will call the Payroll Schema (XX stands for the country version, e.g. for USA – RPCALCU0)

**Working with Schemas**

When it’s required to work with a schema, it’s advisable to copy the standard schema and work with the custom schema. This will help us to have a back up of the original schema.

Go to Tcode PE01

A new screen will pop with asking for the name of the new schema
There are three options available in the initial screen

**Personnel Calculation Schemas: Initial Screen**

- **Delete**
- **Copy**
- **View Option**

**Display**

**Name**

Create

**View \ Edit the Schema**

**View \ Edit the Schema Attributes**

**View \ Edit the Documentation**

**Change**

Source Text will allow changing the schema

**Edit Schema: ZGB0**

<table>
<thead>
<tr>
<th>Cmdno</th>
<th>Func</th>
<th>Par1</th>
<th>Par2</th>
<th>Par3</th>
<th>Par4</th>
<th>D Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>000010</td>
<td>COM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Activate P0003 check in XINO for prodn.</td>
</tr>
<tr>
<td>000020</td>
<td>COM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>000030</td>
<td>COM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Payroll schema: Great Britain standard</td>
</tr>
<tr>
<td>000040</td>
<td>COM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Status........: Jun'99 - 4.6A release</td>
</tr>
<tr>
<td>000050</td>
<td>COM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>000050</td>
<td>COPY</td>
<td>XINO</td>
<td></td>
<td></td>
<td></td>
<td>Initialize payroll</td>
</tr>
<tr>
<td>000070</td>
<td>COPY</td>
<td>GBD0</td>
<td></td>
<td></td>
<td></td>
<td>Processing of basic data</td>
</tr>
<tr>
<td>000080</td>
<td>COPY</td>
<td>GMET</td>
<td></td>
<td></td>
<td></td>
<td>Multiple Employment Initialisation</td>
</tr>
</tbody>
</table>
Attributes will allow changing the characteristics of the schema

**Edit Schema: Attributes**

<table>
<thead>
<tr>
<th>Schema</th>
<th>Z6BA</th>
<th>Great Britain accounting schema for RPCALCO0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attributes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program class</td>
<td>C</td>
<td>Payroll</td>
</tr>
<tr>
<td>Country grouping</td>
<td>B8</td>
<td>Great Britain</td>
</tr>
<tr>
<td>Schema can be executed</td>
<td>✓</td>
<td>✔</td>
</tr>
<tr>
<td>Person responsible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes only by person responsible</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Administrative Info</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Created on</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last changed by</td>
<td></td>
<td>On</td>
</tr>
</tbody>
</table>

- **Program Class** – decides whether the schema is Payroll or Time Management Schema. ‘C’ stands for Payroll and ‘T’ stands for Time Management.
- **Country Grouping** – decides the schema is available for which country. Time Management schemas will usually have ‘**’ since it will be available for all the countries.
- **Person responsible** – shows the person who has created the schema.
- **Changes only by person responsible**, if checked, will not allow anyone else to make modification to the schema.
- **Administrative Info** – will tell about the version and the person who made the last changes.

**Schema Explained**

**Edit Schema: GT00**

<table>
<thead>
<tr>
<th>Line</th>
<th>Func.</th>
<th>Par1</th>
<th>Par2</th>
<th>Par3</th>
<th>Par4</th>
<th>D</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>000040</td>
<td>BLOCK</td>
<td>B6G</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>Gross payment (time management)</td>
</tr>
<tr>
<td>000050</td>
<td>PRINT</td>
<td>NP</td>
<td>PCI</td>
<td></td>
<td></td>
<td></td>
<td>Personal calendar: Annual display</td>
</tr>
<tr>
<td>000060</td>
<td>PRINT</td>
<td>NP</td>
<td>PCI</td>
<td></td>
<td></td>
<td></td>
<td>Personal calendar: Periodic display</td>
</tr>
</tbody>
</table>

There are eight columns in the schema.
- **Column one** consists of the Line Number.
- **Column two** consists of the Functions.
- Next four columns carry the Parameters in relation to the function that is being called.
- **Column ‘D’** is where the decision is taken on a particular line.
- **Text column** consists of an explanation of the action that is being performed in the line.
**Parametres**

Functions will work based on the Parametres one to Four.

| 0001020 | UPA 1 | DJF 1 | 22 | B | Override parameters for retro difference |

It is not mandatory that all four parameters needs to be used for even function.

| 0000080 | P0014 | GP11 | GEN | NOAB | Read in recurring payment/deductions |

In the above screen shot, Infotype 0014 is accessed through Function P0014 using GP11 PCR in Par 1, in Generic Mode (irrespective of WT or processing class) according to the Par 2 and for all the employees sub groups by mentioning NOAB in Par 3.

Parameters will be used as per the characteristic of the Function

**Finally write documentation**

**Personnel Calculation Schemas: Initial Screen**

![Initial Screen](image)

- **Schema Z6B0**: Great Britain accounting schema for RPCALC0

**Documentation Great Britain accounting schema for RPCALC0 (EN)**

*Schema for Payroll Report RPCALC00 (Great Britain)*

**Schema Type**

Main schema for payroll accounting

**Use**

The schema Z6B0 contains the components necessary to calculate full net pay remuneration. This schema serves as a model for GB customers.

**Structure**

Schema Z6B0 is divided into several well-structured subschemas.

**See also**

All subschemas and rules beginning with 6.
Functions and Operations

Functions
A schema is a collection of functions arranged in a logical manner. SAP has provided functions which will meet most of the scenarios. Some functions will be country specific and some others will be commonly used.
Functions provide high level logic for payroll \ time calculation
A function works based on the ABAP coding written specific for the function. By mentioning ABAP coding it also needs to be mentioned that a Schema Function is different from the ABAP Functions.
The available functions can be viewed in transaction code PE04.

Operations
Operations are the smallest object in process. Operations are similar to Functions.
Operations do the final mathematical calculation in Payroll or Time Evaluation. They perform the basic logic of calculations.
Operations works based on the ABAP coding written specific for the function.
Available operations can be viewed in transaction code PE04

Custom Functions and Operations
Functions and Operations can also be created according to the client requirements. There are two steps in creating a Custom functions and Operations
Custom Functions and Operations should be created through transaction code PE04. By mentioning the country to which it belongs, Input parametres and the Output Parameters for the function.

- Functions and operations created for Time Management will create a form in program RPTMOZ00
- Functions created for Payroll will create a form in program PCBURZxx0, where xx is the country code (US, GB)

ABAP coding needs to be designed according to the requirement in the form created in the appropriate program

- If the Function has been created as ZTEST the form will be created as FUZTEST
- If the Operation has been created as ZTEST the form will be created as OPTEST
Related Content

Please include at least three references to SDN documents or web pages.


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