

HR2006

MARCH 8 – 10 • LAS VEGAS

Produced and conducted by WIS, publisher of SAP Insider, with permission of SAP AG

The Building Blocks of Time Evaluation – from Configuration to Troubleshooting

Dirk Liepold
RowSix LLC

What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Introduction

- SAP Time Evaluation is a very flexible and powerful “toolbox”
- This session will help you understand the main building blocks of SAP Time Evaluation (RPTIME00)
- Become familiar with the overall time evaluation processing flow
- Get tips on how to best implement your custom time management business requirements leveraging standard SAP technology
- See real project examples of custom business requirements and how they have been solved and implemented using custom schemas and cycles and custom time types

Introduction (cont.)

- Get a feeling for the flexibility of SAP Time Evaluation and the almost unlimited real-life requirements that you can implement with this product
- Understand the interaction between time evaluation functions, operations, configuration tables and the employee master data and time data infotypes
- Learn how to use SAP Time Evaluation to calculate weekly FLSA and daily state OT rules in conjunction with real-life custom corporate rules, like seventh-day double-time calculation

In This Session ...

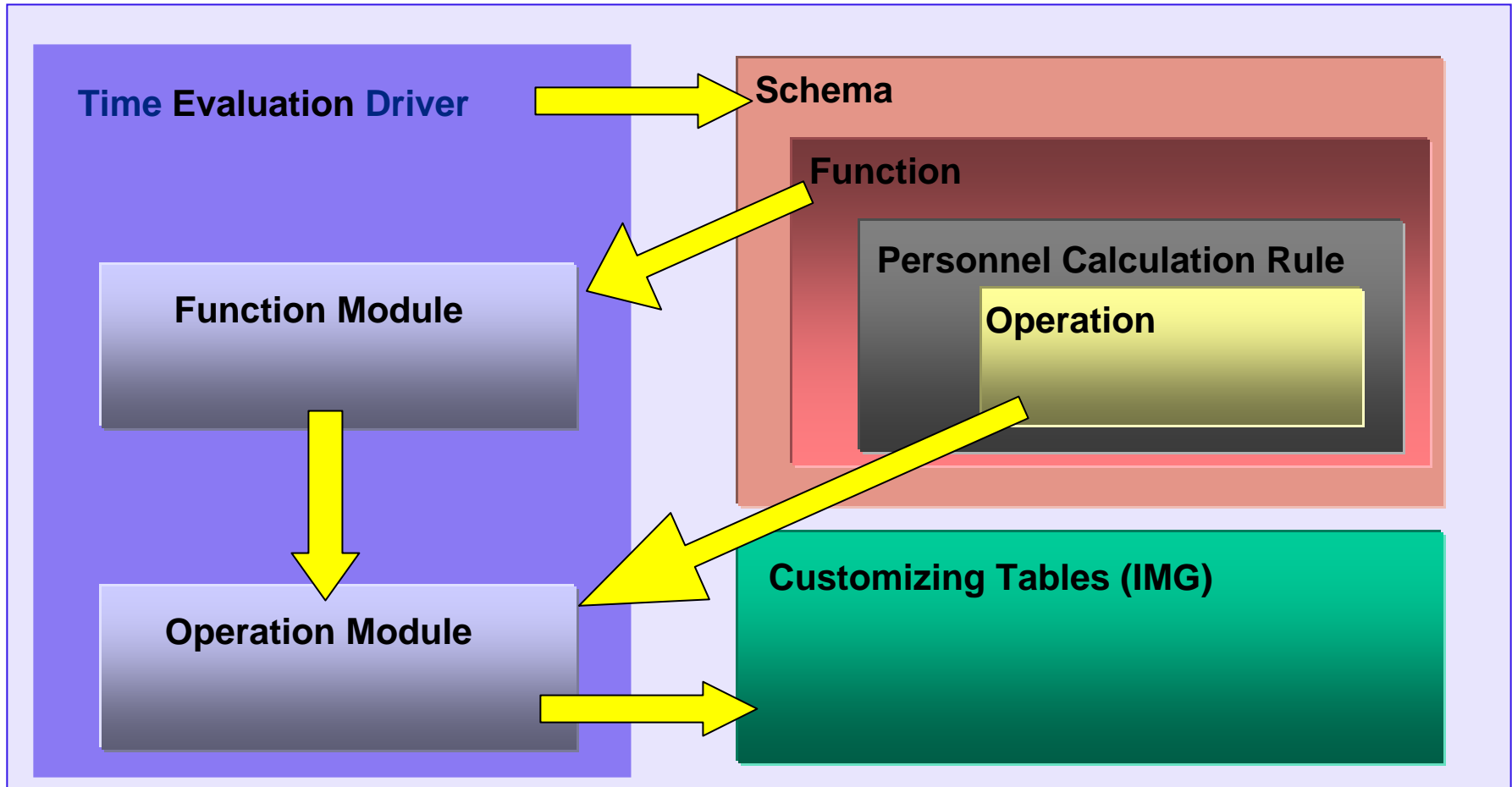
- **You will learn:**
 - ♦ What schemas, rules (cycles), functions, operations, and time types are
 - ♦ How the above components interact, and where and how the time evaluation data is stored
 - ♦ How to leverage the power and flexibility of using time types, as well as operations and functions to help you implement your custom time management solution

In This Session ... (cont.)

- How to read the time evaluation log
- How to troubleshoot time evaluation problems
- How to interpret internal time evaluation tables
- How to “debug” RPTIME00
- *Plus, you get:*
 - ◆ Tips on time evaluation results testing and regression testing
 - ◆ References for some useful time evaluation tools/reports

In This Session ... (cont.)

- We will “dive” into the details of time evaluation processing



What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

What Are Schemas and Sub-Schemas?

- The schema controls the flow of time evaluation
- The schema consists of a sequence of functions
- The schema is organized in a sequential manner to easily reflect the flow of time information
- The schema is configurable to allow for the flexibility of your business needs and requirements

What is the RPTIME00 Program?

- RPTIME00 is the time evaluation “driver”
- RPTIME00 is executing the business logic as defined in the selected schema
- The RPTIME00 program is not a top-down program, but a “warehouse” of code to be chosen for execution by the schema

SAP Standard Schemas

- Each schema controls the flow of processing to be selected from the “warehouse” of code stored in the RPTIME00 program

<i>Schema Directory</i>			
Documentation		Attributes	
Schema	Ver	Text	Selected.....
TM00		STD Time Evaluation with Personnel Time Events	6
TM01		STD Time Evaluation for Work Schedule Deviations	
TM02		STD Time Evaluation for External Services Management	
TM04		STD Time Evaluation Without Clock Times	
TM0C		STD Time Evaluation Schema for RPTIME01	
TMA4		STD Time evaluation without clock times	

- Each of these executable schemas may be copied and “enhanced” via configuration to meet your specific requirements
- You can maintain/display schemas via transaction PE01

The Processing Flow

Edit Schema: TM04

Line	Func.	Par1	Par2	Par3	Par4	D	Text
000010	COM						Time Evaluation Without Clock Times
000020	COM						=====
000030	**						Evaluation of attendances and absences
000040	**						recorded without clock times
000050	**						
000060	BINI						Initialization
000070	MOD	TMON	GEN				Define groupings
000080	EINI						End of processing block
000090	**						
000100	BDAY						Day processing
000110	**						Options:
000120	CHECK		PON				Time recording status other than 0
000130	CHECK		RPR				Set retro.acc.for payroll, if required
000140	CHECK		FUT				Allow evaluations for future periods
000150	CHECK		NOTR			*	Do not use Time Recording infotype
000160	OPTT	MAIL	1			*	Mail to administrator if errors occur
000170	BLOCK	BEG					Provide time data
000180	IF			POS			If Time Mgmt status = 1,2 (actual times)
000190	IF		NOT	SIMF			and if it is not a simulation
000200	PERT	TD20					Evaluate errors from pair formation
000210	P2011						Provide time pairs and daily WS
000220	ACTI0	TD10					End if daily WS still active
000230	A2003						Process work center substitution
000240	P2001						Provide absences
000250	P2002						Provide attendances
000260	ELSE						Otherwise, simulation
000270	COPY	TDT0					Provide daily WS and time data
000280	ENDIF						Endif (simulation)
000290	ELSE						If time recording <=> 1,2 (actual times)
000300	COPY	TDT0					Provide daily WS and time data
000310	ENDIF						Endif (time recording)
000320	COPY	TF00				*	Generate clock times
000330	ACTI0	TD03				*	Holidays on Sunday -> next day off
000340	BLOCK	END					=====
000350	BLOCK	BEG					Error checks
000360	ACTI0	TE20					Check for day with error

Schema TM04

Function BINI

Function MOD

Function EINI

Function BDAY

Function CHECK

Function IF

Function P2001

Function ELSE

Function ACTIO

Function PTIP

Function ENDIF

Function GWT

Function EDAY

Function EXPRT

Function EEND

Master Data

PCL2

Time Data

IMG Tables

What Are Time Evaluation Functions?

- A function is a logical “block” of ABAP code, which is contained in the RPTIME00 “warehouse” of code
- Functions supply the data required for processing, process the data, and write it to internal tables. The processing step performed by a function can be controlled or refined by specifying parameters.
- RPTIME00 triggers function pool SAPFP51T to evaluate the time data. The function pool calls application components, which process the time data.

How Are Time Evaluation Functions Executed?


- A sequence of functions is configured in the schemas and sub-schemas and executed during time evaluation
- We will learn how to find and research the ABAP code associated with any time evaluation function
- The use of a parameter for a function is configured in the schema and sub-schema
- We will learn how to determine which parameters are available for use with any time evaluation function

The "F1" Key Provides Detailed Documentation ...

- ... on the functionality and syntax of the function

000120	CHECK		PON			Time recording status other than 0
000130	CHECK		RPR			Set retro.acc.for payroll, if required
000140	CHECK		FUT			Allow evaluations for future periods
000150	CHECK		NOTR		*	Do not use Time Recording infotype
000160	OPTT	MAIL	1		*	Mail to administrator if errors occur
000170	BLOCK	BEG				Provide time data
000180	IF			POS		If Time Mgmt status = 1,2 (actual times)
000190	IF		NOT	SIMF		and if it is not a simulation
000200	PERT	TD20				Evaluate errors from pair formation
000210	P2011					Provide time pairs and daily WS

Documentation Import Absences to Table TIP (EN)

Link 

Import Absences to Table TIP

Object

Function

Use

Function P2001 imports the absences for the day being evaluated into table TIP. Partial-day absences are entered in TIP with the recorded time interval.

For full-day absences, the system generates a pair based on the normal working time in the Daily Work Schedules table (T550A).

Syntax

How to Display and Maintain Functions

- You can maintain/display functions with transaction PE04
- A function is nothing other than an ABAP form-routine

Maintain Functions and Operations

Activate all Input parameters Output parameters

Name: **P2001**

Object class: Payroll Time management

Object type: Function Operation

Create Change Display Delete

- The naming convention for functions is:
 - Function name = Fuxxxxx, where xxxxx is equal to five-digit function name
- The source code for custom functions has to be maintained in Include RPTMOZ00

ABAP Editor: Display Include RPTMAS00_FUP2001

Include: RPTMAS00_FUP2001 Active

```
FORM fup2001.
  DATA: BEGIN OF ab_key,
    begda LIKE ab-begda,
    endda LIKE ab-endda,
    obegd LIKE ab-obegd,
    oendd LIKE ab-oendd,
    subty LIKE ab-subty,
    objps LIKE ab-objps,
    seqnr LIKE ab-seqnr,
    docnr like ab-docnr,
  END OF ab_key,
  ab_key_2 LIKE ab_key.
  DATA: sw_p2001(1).
  sw_p2001 = '0'.
  max_date = acdate + 1.
  CLEAR tip.
```

Internal and Cluster Tables

Internal Tables used by RPTIME00

ERT	- Error Message Table
DZL	- Generated Wage Types/Day
SALDO	- Cumulated balances
TES	- Daily Time Types
ZML	- Overtime Wage Types
ZES	- Daily Balances
ZL	- Time Wage Types
TIP	- Daily Input
TOP	- Daily Output

PCL2 – Cluster Tables

ZES	- Daily Time Balances
SALDO	- Cumulated Time Balances
ZL	- Time Wage Types
PT	- Time Pairs
AB	- Absences
ANWES	- Attendances
VERT	- Substitutions
ABWKONTI	- Absence Quotas
ANWKONTI	- Attendance Quotas
QTACC	- Quota Accrual
WPBP	- Basic EE data
PSP	- Personnel Work Schedule
ERT	- Errors
C1	- Cost Distributions

Time Pairs vs. Time Types

- **Time pairs**

- ♦ Time events are formed into time pairs before the data is evaluated by the time evaluation driver RPTIME00
- ♦ All time events are processed that have been:
 - ▶ **Uploaded from a time recording system**
 - ▶ **Entered online in the Abs./Att. infotypes (2001, 2002)**
 - ▶ **Entered online in the Time Events infotype (2011)**
- ♦ Pair formation is carried out on a daily basis
- ♦ The daily work schedule information is taken into account to determine how the individual time pairs will be created
- ♦ You can trigger a repeat run of pair formation manually. This is necessary if you have made back-dated changes to configuration tables.

Time Pairs vs. Time Types (cont.)

- **Time Types**

- ♦ Time types are “buckets” to collect time for different purposes:
 - ▶ **Payment regulations**
 - ▶ **Internal company requirements**
 - ▶ **Control tasks**
- ♦ Time types can be configured to be:
 - ▶ **Transferred to daily/monthly totals**
 - ▶ **Taken over from previous period**
 - ▶ **Taken over from previous year**
 - ▶ **Transferred to cluster B1 (for entry data)**

Tables TIP and TOP

Detail View of Log

From	To	1	P	ID	CT	P	TTyp	BR	ER	C	O	I	BPin	EPin	PT	ALP	C1	AB	Number
08.0000	10.0000		2		00	S	1200				D								2.0000
10.0000	10.2500		2	06	00	A	0540				D								0.2500
10.2500	12.0000		2		00	S	1200				D								1.7500
12.0000	13.0000		2	05	00		0520				D								1.0000
13.0000	14.0000		2		00	S	1200				D								1.0000
14.0000	14.2500		2	06	00	A	0540				D								0.2500
14.2500	17.0000		2		00	S	1200				D								2.7500

1. Time pairs are inserted into the internal table TIP (daily input)
2. The time pairs in TIP are processed, changed, and made available for further processing
3. TIP provides the input of the previous results for the respective processing step
4. Time pairs are then transferred individually to a personnel calculation rule for processing
5. After processing, the new results are inserted in the internal table TOP (daily output)
6. TOP is renamed as TIP for the next function, so that further processing can be performed

Tables TIP and TOP (cont.)

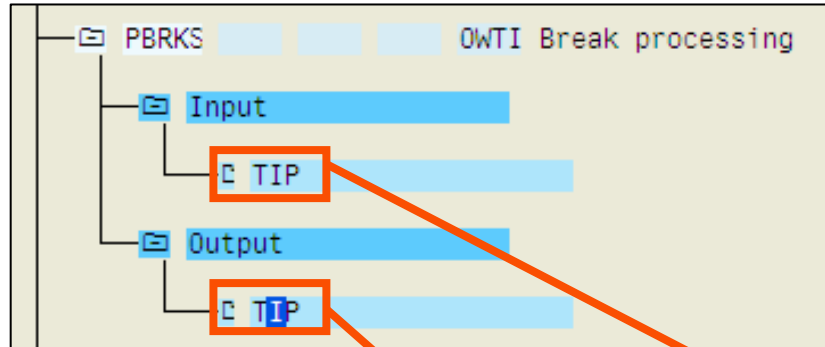


Table TIP before and after the function PBRKS has been executed

Table TIP

From	To	1	P	ID	CT	P	TTyp	BR	ER	C	O	I	BPin	EPin	PT	ALP	C1	AB	Number
08.0000	17.0000		2		00	S	1200				D								9.0000

Table TIP

From	To	1	P	ID	CT	P	TTyp	BR	ER	C	O	I	BPin	EPin	PT	ALP	C1	AB	Number
08.0000	10.0000		2		00	S	1200				D								2.0000
10.0000	10.2500		2	06	00	A	0540				D								0.2500
10.2500	12.0000		2		00	S	1200				D								1.7500
12.0000	13.0000		2	05	00		0520				D								1.0000
13.0000	14.0000		2		00	S	1200				D								1.0000
14.0000	14.2500		2	06	00	A	0540				D								0.2500
14.2500	17.0000		2		00	S	1200				D								2.7500

What are Personnel Calculation Rules?

- Personnel calculation rules allow more detailed processing in time evaluation and are called via specific functions. They are stored in a control table, as are schemas, and can be created and changed when the system is customized.
- Operations are the basic modules that form personnel calculation rules
- Standard calculation rules are provided by SAP as a baseline for time evaluation

What are Personnel Calculation Rules? (cont.)

- Rules are configurable, and customer-specific rules can easily be created to solve complex business requirements and problems
- The calculation rules can be time type/employee subgroup grouping-specific or generic
- The calculation rules can be based on the type of employee – salary exempt, salary non-exempt, hourly non-exempt, etc.
- The SAP calculation rules (cycles) are your friend and the technical strength of your flexibility

SAP Standard Personnel Calculation Rules

- Can be used as templates, copied, and modified to custom needs

<i>Directory of Personnel Calculation Rules</i>		
Documentation Attributes		
Directory of Personnel Calculation Rules		
PCRule	Ver	Text
	Selected.....	555
TD01	STD	Correcting the Pair Type
TD02	STD	Correcting the Pair Type
TD03	STD	Public Holiday on a Sunday
TD10	STD	Check Whether the Daily Work Schedule is Still Active
TD20	STD	Processing Errors from Pair Formation
TD30	STD	Dynamic Daily Work Schedule Assignment
TD40	STD	Processing the Overtime Infotype (2005)
TD60	STD	Processing Leave During Reduced Working Hours Period
TD61	STD	Processing Leave During Reduced Working Hours Period
TD70	STD	Correct attendance flag
TD80	STD	Process Attendance/Absence Reasons (Clock-In Entry)
TD81	STD	Process Attendance and Absence Reasons (Clock-Out Entry)
TD90	STD	Processing Locked Records
TD91	STD	Processing Locked Records
TE10	STD	Adding Absences
TE11	STD	Correcting an Absence Indicator (Flag)
TE20	STD	Error Checks for Specific Days
TE21	STD	Error Checks for Specific Days
TE30	STD	Error Checks for Pairs
TE31	STD	Error Checks for Pairs (Alternative to Rule TE30)

- You can maintain/display personnel calculation rules via transaction PE02

What are Operations?

- Operations are the basic modules that form personnel calculation rules. They can change data and values in tables and/or determine the course of processing.
- Common types of operations are:
 - ◆ Decision operations
 - ◆ Operations that initiate one or more actions
 - ◆ Branch operations
 - ◆ Operations for updating internal tables
 - ◆ Operations for reading internal tables
 - ◆ Operations to manipulate hours

How to Use Operations

- The personnel calculation rule editor (PE02) is a tool for customizing personnel calculation rules
- The editor provides numerous functions that enable you to display and edit a rule
- Six operations can be entered in one line. If more operations are required, additional operations can be entered in a continuation row, identified via the *CL* column and a NEXTR operation
- The 8-character *Variable Key* allows for a maximum of four 1-character return values for decision operations. If four decisions are not sufficient – a branch operation can be used to add more decisions in another PCR.

How to Use Operations (cont.)

*Edit Rule: TO02 ES Grouping * Wage Type/Time Type *****



Line	Var.Key	CL	T	Operation	Operation	Operation	Operation	Operation	Operation
000010			D	OUTTPVTYPE					
000020	*			COLOP*					
000030	S		D	OUTTPPTYPE					
000040	S *		D	HRS=D0904	HRS?D0900				
000050	S * *			FILLPVM	COLOP 0040				
000060	S * <		D	HRS+PNUM	HRS?D0900				
000070	S * < *			ADDDB0904Z	COLOP*				
000080	S * < >			HRS=D0900	HRS-D0904	GENTPB	SADDDB0904	FILLPVM	COLOP 0040
000090	S 0			COLOP*					
000100	S 2			COLOP*		"PERHAPS	ADDDB0904	FOR SPECIAL	ABSCENCES

The "F1" Key Provides Detailed Documentation ...

- ... on the functionality and syntax of the operation

*Edit Rule: T002 ES Grouping * Wage Type/Time*



Cmmnd

Line	Var.Key	CL	T	Operation	Operation	Operation	Operation
------	---------	----	---	-----------	-----------	-----------	-----------

000010			D	OUTTPVTYPE			
--------	--	--	---	------------	--	--	--

000020	*			COLOP*			
--------	---	--	--	--------	--	--	--

OUTTPPTYPE

HRS=D0904 HRS?D0900

FILLPVM COLOP 0040

Documentation Edit Number of Hours Field (EN)

Link



Edit Number of Hours Field

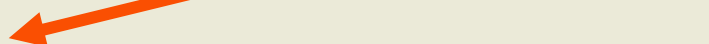
Use

Operation HRS can be used to change the number of hours field or to compare it with other values. HRS may or may not be a decision operation, depending on the parameters set.

Syntax

TOperation Operation

HRSoyzzzzz



How to Display and Maintain Operations

Maintain Functions and Operations

Activate all Input parameters Output parameters

Name **HRS**

Object class
 Payroll
 Time management

Object type
 Function
 Operation

Create Change Display Delete

- You can maintain/display operations with transaction PE04
- An operation is nothing else than an ABAP form-routine

ABAP Editor: Display Include

Include **RPTBU300_OPHRS**

```
form pphrs.  
  perform vget.  
  check error_status ne '2'.  
  arith1 = act-anz. arith2 = pfeld.  
  perform arith using op10+3(1).  
  act-anz = arith1.  
  if op10+3(1) ne '?'.  
    erg = arith1.  
  endif.  
endform.
```

- The naming convention for operations is:
 - Operation name = OPxxxxx, where xxxxx is equal to the five-digit function name
- The source code for custom functions has to be maintained in Include RPTMOZ00

When and How are Operations Executed?

000200	BLOCK END	*****
000210	BLOCK BEG	Manage Time Accounts
000220	RTIP &CSL GEN	Add Shared Leave Abs. to Daily Bal.

1. Function *RTIP* calls PCR "&CSL" for each TIP entry
2. Decision operation OUTTP is executed with parameter VTYPE

3. Dependent on the "Processing Type" in Table TIP, Decision operation OUTTP is executed with parameter ABTYP
4. Dependent on the "Absence Type," operation HRS is retrieving the hours from the current TIP entry
5. The hours retrieved by the previous HRS operation are added to Time Type "9901" via operation ADDB

Var.Key	CL	T	Operation	Operation
		D	OUTTPVTYPE	
+				
A		D	OUTTPABTYP	
A	****			
A	9000		HRS=PNUM	ADDDB9901
A	9078		HRS=PNUM	ADDDB9901

How to Check the Processing of Operations

Display Log Tree

Log: Time Evaluation

- General data
- Successful personnel numbers
 - 99999991 Panse Jim
 - Initialization 11/2005
 - 11/01/2005 Tuesday
 - Provide Time Data
 - Manage Time Accounts
 - RTIP &CSL GEN Add Shared Leave Abs. to Daily Bal.
 - Input
 - TIP
 - Processing
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL
 - Call rule &CSL

Color Legend

- Main level
- Persons or sublevel
- Period
- Subschema
- Function
- Input/processing/output
- Table/processing step

✓

How to Check the Processing of Operations? (cont.)

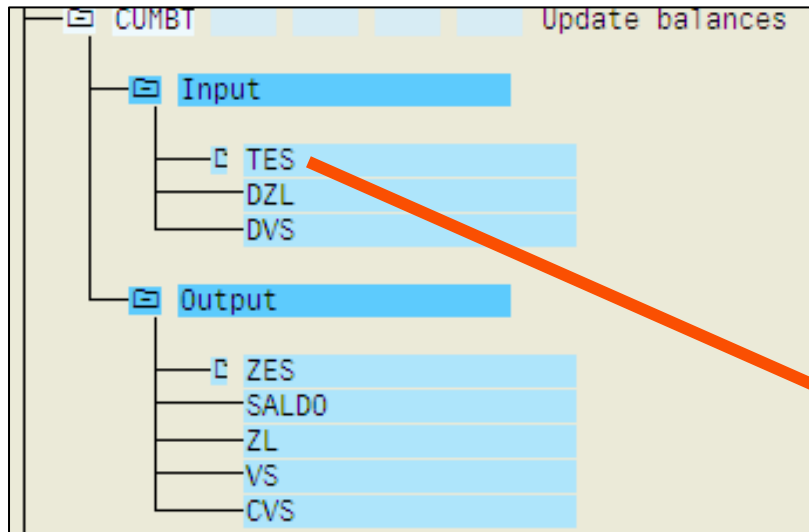
Table TIP																			
From	To	1	P	ID	CT	P	TTyp	BR	ER	C	O	I	BPin	EPin	PT	ALP	C1	AB	Number
08.0000	10.0000	0	2		01	A					A							01	2.0000
10.0000	10.2500	0	2	06	01	A	0540				A							01	0.2500
10.2500	12.0000	0	2		01	A					A							01	1.7500
12.0000	13.0000	0	2	05	01		0520				A							01	1.0000
13.0000	14.0000	0	2		01	A					A							01	1.0000
14.0000	14.2500	0	2	06	01	A	0540				A							01	0.2500
14.2500	17.0000	0	2		01	A					A							01	2.7500

Var.Key	CL	T	Operation	Operation
		D	OUTTPVTYPE	
*				
A		D	OUTTPABTYP	
A	****			
A	9000		HRS=PNUM	ADDDB9901
A	9078		HRS=PNUM	ADDDB9901

1. Table TIP before processing of PCR & CSL
2. PCR "&CSL" is called seven times for each TIP entry
3. For TIP entries with processing type "A" and absence type "9000" or "9078," the hours are added to time type "9901"
4. For TIP entries with processing type other than "A" → No processing

Checking Table Entries ...

... via the Time Evaluation Log (RPTIME00)



- Internal table TES contains the eight hours that were added to time type "9901" via PCR & CSL
- Function *CUMBT* updates the balance table ZES with the balances from table TES

Table TES	
Time type	Number
9901 Career Shared Leave Daily	8.0000
9941 Career Shared Leave Total	8.0000

Checking Table Entries ... (cont.)

... stored in table PCL2 Display (RPCLSTB2)

Table ZES contains the eight hours that were added to time type "9901" via PCR & CSL

Display Time Evaluation Results (Cluster B2)

Selection

Personnel no. 99999991 To

Complex selection to

Year to

Period (YYYYPP) to

Cluster type 1

Display Time Evaluation Results (Cluster B2)

Pers. no	Year	Period	ClType	Hist.	Chg. date	User	Report	Archive grp
99999991	2005	01	1		12/20/2005	DIRKL	RPTIME00	

Display Time Evaluation Results (Cluster B2)

Person 99999991 Panse Jim

Period 11 2005 ClType 1

Table ZES Time balances for each day

Relative day	Time type	Number
01	11/01/2005 9901 Career Shared Leave Daily	8.00

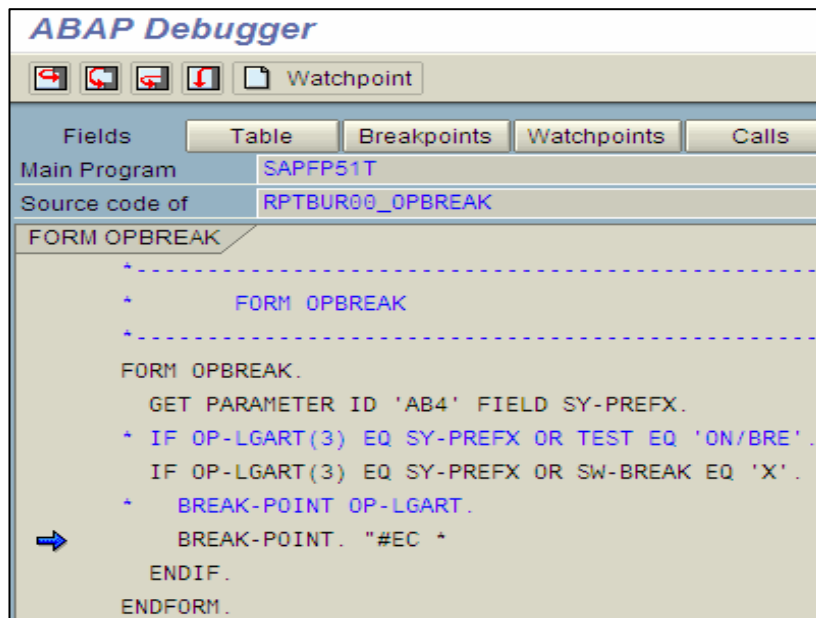
How to Debug Time Evaluation Operations/Functions

Parameter ID	Parameter value	Short Description
AB4	DIR	ABAP prefix

- ◆ Set a breakpoint using function or operation *BREAK*

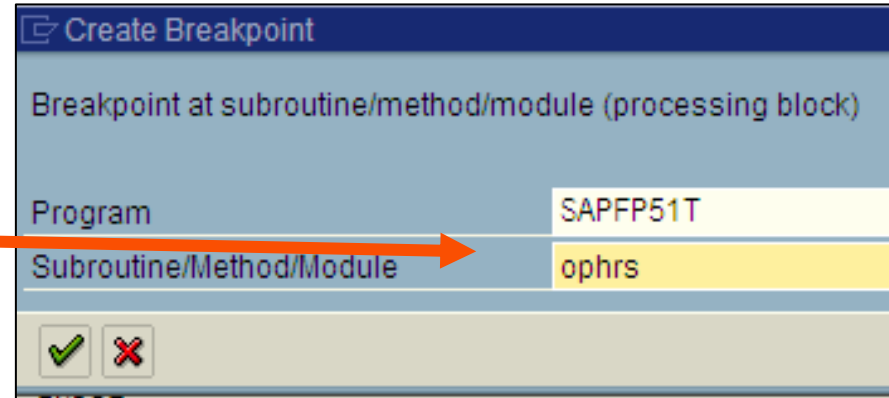
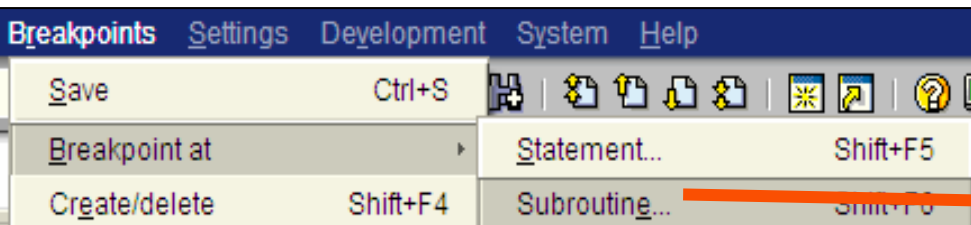
```
000010      D BREAK DIR OUTTPVTYPE
```


- ◆ Start RPTIME00 and you will get into the ABAP Debugger mode




How to Look at Operation Code or Table Content

- Set a breakpoint at a specific subroutine



- In this example we set a breakpoint at operation HRS
- Push the Run  Button (F8-Key)
- You will arrive at your breakpoint

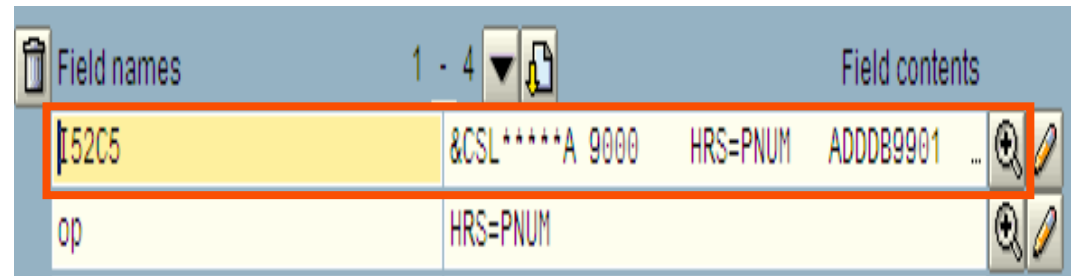
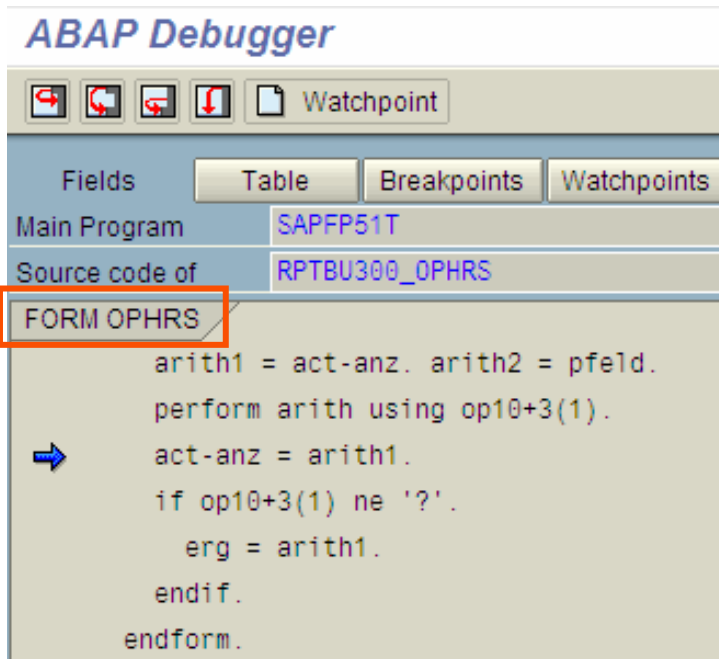
- With the Single Step  Button (F5-Key) you can step through the detailed processing per operation
- You can look at specific tables entries:

- ▶ AS – List of functions in current schema
- ▶ I52C5 – Current line in PCR
- ▶ TIP – Internal time processing table
- ▶ All other internal tables

```
-----  
+      FORM OPHRS  
+-----  
+      Operation HRS  
+-----  
form ophrs.  
→ STOP perform vget.  
   check error_status ne '2'.  
   arith1 = act-anz. arith2 = pfeld.  
   perform arith using op10+3(1).  
   act-anz = arith1.  
   if op10+3(1) ne '?'.  
       erg = arith1.  
   endif.  
endform.
```

How to Look at Operation Code or Table Content (cont.)

- See an individual table or field entry before and after an operation



- See the current line of the PCR and the operation being processed

- See the current TIP table

1	BEGTM	ENDTM	STAT1	PType	ZType	CLTIM	VType	ZStart	ANZHL	BSART	ESART
1	102500	120000	0	2	01	A			1.7500		
2	100000	102500	0	2	06	A	0540		0.2500		
3	102500	120000	0	2	01	A			1.7500		
4	120000	130000	0	2	05	A	0520		1.0000		

Debugging Tips

- Limit the time range for debugging
- Switch the Log off
- Set breakpoints as close to “trouble area” as possible
- If you have “Replace” authorization you can change field values during run-time for testing



Tip

What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Integration — How Do All the Components Interact?

RPTIME00

- Select Employees
- Lock PERNR
- Determine Evaluation Period
- Retrieve Data
- Form Time Pairs
- Trigger Function Pool SAPFP51T

- Determine Next Day to be processed
- Store Results in PCL2
- Write Evaluation log

Schema ZZZ1

Function IF

Function RTIP &001

Function ACTIO &002

Function ENDIF

Function GWT

SAPFP51T

PCR &001

Operation ADDDB

Operation HRS

Operation COLOP

PCR &002

Operation VARST

Operation ADDZL

Operation ADDMB

Customizing Table

T510S

Time WT Selection

Customizing Table

T555A

Time Types

What We'll Cover ...

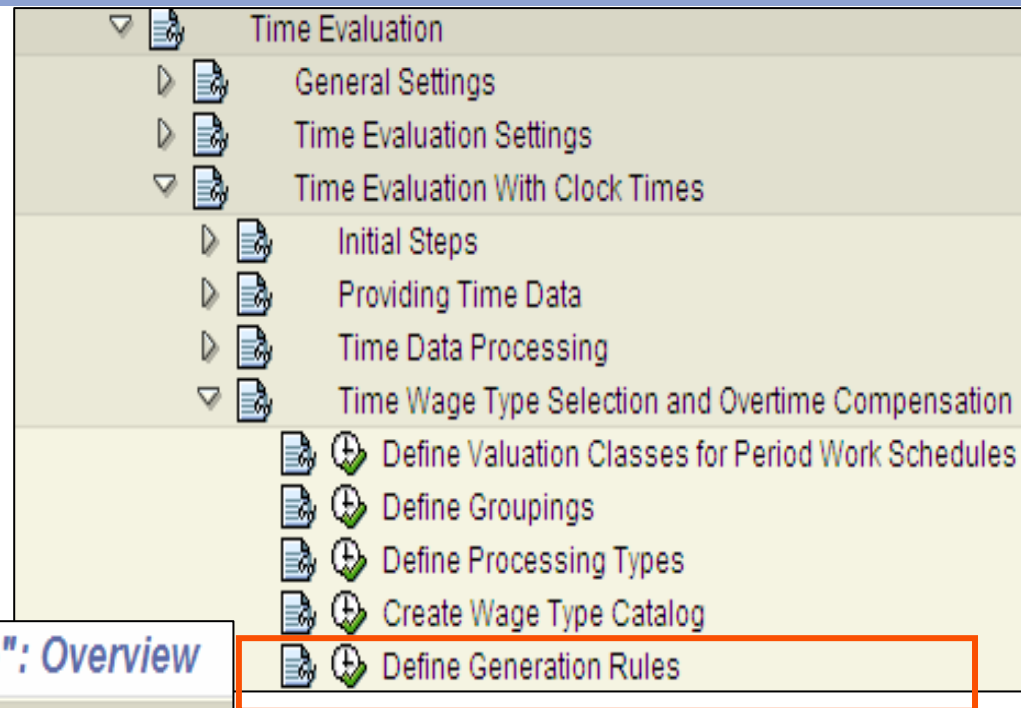
- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Wage Type Generation via Table T510S

- One of the most important outputs of time evaluation are wage types and hours per employee per day!
- Table T510S allows you to set up generation rules to generate wage types based on certain conditions
- The advantage of using this powerful tool is that it is flexible and no personnel calculation rules are required to generate wage types via operation ADDZL
- If the business requirements to generate wage types are very complex and the decision criteria available in table T510S are not sufficient, the creation of custom PCR's using operation ADDZL to generate wage types may be required!

How to Configure Table T510S?

1. Set correct "time wage type selection rule" group
2. Define processing types
3. Configure required wage types
4. Define generation rules



Change View "Time Wage Type Selection Rule": Overview

	Tm...	DyGrpg	No.	Name of rule	Wage type	Wage Type Long Text	From
	10	01	001	Normal Work Hours	9901	Regular Working Time H...	01/01
	10	01	011	Evening Shift Premium	9912	Evening Shift Premium	01/01
	10	01	012	Night Shift Premium	9913	Night Shift Premium	01/01
	10	01	013	Weekend Shift Premium	9914	Weekend Shift Premium	01/01
	10	01	060	Overtime bonus 50%	9916	Overtime Premium 50%	01/01
	10	01	065	Overtime bonus 100%	9917	Doubletime Premium 10...	01/01

What are the Decision Variables?

Change View "Time Wage Type Selection Rule": Details

New Entries

Time WT sel.rule grp: 10

Day grouping: 01

Sequential no.: 001 Normal Work Hours

Wage type: 9901 Regular Working Time Hrly

Start Time: 01/01/1990

Exit: /31/9999

Valid processing types: S

Conditions Day						
Weekdays	PH pre.day	PH cur.day	PH sub.day	Val.class	DWS class	Day type
1234567	b123456789	b123456789	b123456789	0123456789	0123456789	b123456789
XXXXXXX	XXXXXXXXXX	X	XXXXXXXXXX	XXXXX	XXXXXXXXXX	X

Conditions Time						
Start	End	Min.	Symb.	Max.	Symb.	Relevant proc.types
						<input type="checkbox"/> Interval

Control

Fixed val.:

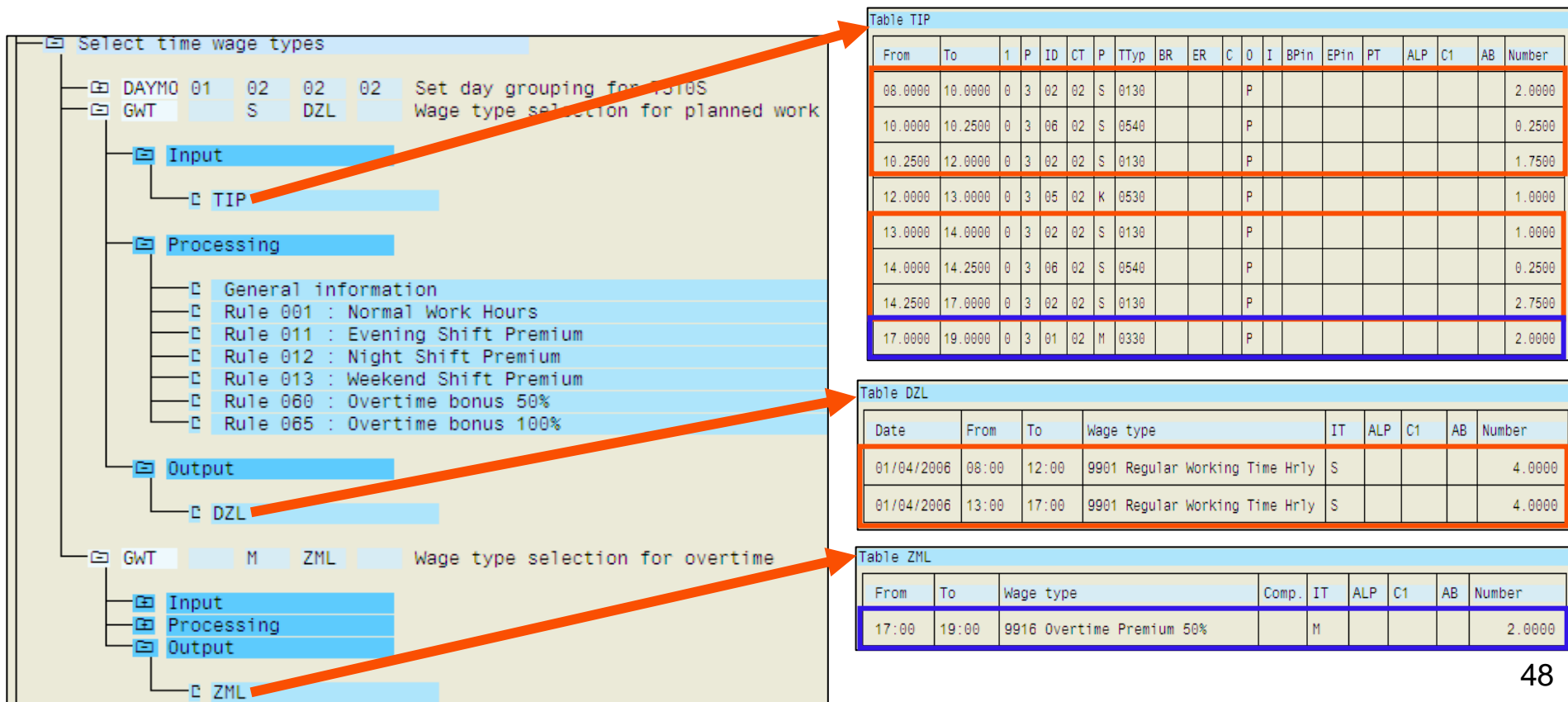
Exit rule

Stop time wage type selectn

1. Time wage type selection rule group
2. Day grouping
3. Valid processing types
4. Conditions for day
5. Conditions for time

How Does Wage Type Generation Work?

1. Time evaluation processes each TIP entry via function GWT, which matches the processing type as specified in parameter 2
2. All T510S rules that match the *wage type selection rule* group and the day grouping are executed in sequential order
3. If a T510S rule fulfills all requirements per configuration, a wage type entry is created in internal table ZL or DZL



What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Example 01 – Security Guard Differential

- **Customer requirement:**
 - ♦ Security guards should receive compensation to fill their base pay automatically to 40 hours if they fulfilled their base shifts of 16, 24, or 32 hours
 - ♦ If any hours are worked during a scheduled day, this day should count towards fulfilling the base shift
 - ♦ Unpaid absences should be excluded
 - ♦ Employees are on different work weeks and the count is dependent on the start of their work week

Example 01 – Security Guard Differential (cont.)

- **Solution**

- ♦ Define a time type to collect worked hours
- ♦ Define a time type to collect scheduled hours
- ♦ Use period work schedule valuation class to identify security guard schedule
- ♦ Check relative day of the week
- ♦ Add worked hours to time type
- ♦ Add scheduled hours to time type
- ♦ On first day of the week, initialize time type
- ♦ On seventh day of the week, generate time pair to fill hours up to 40 hours based on scheduled hours

Example 01 – Security Guard Differential (cont.)

Line	Var.Key	CL	T	Operation	Operation	Operation	Operation	Operation	Operation
000010		D		DVARSTTIMCL			PERIOD	WS	VALUATION?
000020	*								
000030	9	D		VARSTWEDAY			RELATIVE	WEEKDAY?	
000040	9 *			HRS=S	ADDMB90SC				
000050	9 1			HRS=0	ADDMB90SCZ	HRS=S	ADDMB90SC		
000060	9 7	D		HRS=S	ADDMB90SC	HRS=M90SC	HRS?16.00		
000070	9 7 *								
000080	9 7 =			HRS=24.00	GENTG	HRS=0	ADDMB90SCZ		
000090	9 7 >	D		HRS?24.00					
000100	9 7 > *								
000110	9 7 > =			HRS=16.00	GENTG	HRS=0	ADDMB90SCZ		
000120	9 7 > >	Z		GCY &DII					

Line	Var.Key	CL	T	Operation	Operation	Operation	Operation	Operation	Operation
000010		D		HRS?32.00					
000020	*								
000030	=			HRS=8.00	GENTG	HRS=0	ADDMB90SCZ		

Time Types used:

90SC – Scheduled hours

Flow Logic:

1. Check period WS valuation class
2. Check the relative day of the week
3. Add scheduled hours to time type 90SC
4. Initialize time type 90SC if relative weekday is 1
5. Add 24 hours to time type 90SC and generate time pair if hours EQ 16
6. Add 16 hours to time type 90SC and generate time pair if hours EQ 24
7. Add eight hours to time type 90SC and generate time pair if hours EQ 32

Example 02 – Daily Holiday Bump-Up by State

- **Customer requirement:**
 - ♦ Employees should receive a 0.5 bump-up of all holiday hours in excess of eight hours for California and in excess of ten hours for Oregon if they are on “compressed” shifts
 - ♦ The holiday hours have to be paid out as a separate wage type HOL
 - ♦ A shift differential of either 10, 12 or 15% has to be paid for the bump-up hours based on the work schedule

Example 02 – Daily Holiday Bump-Up by State (cont.)

- **Scenario:**

- ♦ Employee scheduled to work 11.5 hours and resides in CA
- ♦ Employee reports 11.5 hours holiday work
- ♦ Employee is assigned to a 12% differential work schedule
- ♦ Employee should receive the following wage types:
 - ▶ 11.5 Hrs HOL
 - ▶ 1.8 Hrs HOL (Holiday Bump-Up)
 - ▶ 11.5 Hrs S12 (12% Shift Differential)
 - ▶ 1.8 Hrs S12 (12% Shift Differential for Holiday Bump-Up)

Example 02 – Daily Holiday Bump-Up by State (cont.)

- **Solution:**

- ♦ Use IT0001 Personnel Area field to determine employee location by state
- ♦ Define a time type to count the holiday hours
- ♦ Define a time type to count the daily scheduled hours
- ♦ Define a time type to store the calculated bump-up hours
- ♦ Generate a wage type entry via operation ADDZL for the additional bump-up hours
- ♦ Generate a wage type entry via operation ADDZL for the shift differential for all bump-up hours

Example 02 – Daily Holiday Bump-Up by State (cont.)

Line	Var.Key	CL	T	Operation	Operation	Operation	Operation	Operation	Operation	+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----										
000010			D	HRS=D9HOL	HRS?0		"ANY HOLIDAY HOURS?"			
000020	=						----> NO			
000030	>		D	VALEN 2	OUTWPSHIFT		----> YES - WHAT WORK SCHEDULE?			
000040	> **		D	HRS=D9HOL	HRS+D9VAC	HRS?8	--> HOL+VAC>8 ?			
000050	> ***						--> NO			
000060	> ** >		D	HRS=D9VAC	HRS?8					
000070	> ** > *			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	HRS*0.5	*
000080	> ** > * 1			HRS/1000	HRS*1000		ADDZL HOL			
000090	> ** > >			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	NEXTR	
000100	> ** > > 1			HRS=8	HRS-D9VAC	ADDD9HBU	HRS=D9HBU	HRS*0.5	NEXTR	
000110	> ** > > 2			HRS/1000	HRS*1000		ADDZL HOL			
000120	> 10		D	HRS=D9HOL	HRS+D9VAC	HRS?8	--> HOL+VAC>8 ?			
000130	> 10 *						--> NO			
000140	> 10 >		D	HRS=D9VAC	HRS?8					
000150	> 10 > *			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	HRS*0.5	*
000160	> 10 > * 1			HRS/1000	HRS*1000		ADDZL HOL	ADDZL S10		
000170	> 10 > >			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	NEXTR	
000180	> 10 > > 1			HRS=8	HRS-D9VAC	ADDD9HBU	HRS=D9HBU	HRS*0.5	NEXTR	
000190	> 10 > > 2			HRS/1000	HRS*1000		ADDZL HOL	ADDZL S10		
000200	> 12		D	HRS=D9HOL	HRS+D9VAC	HRS?8	--> HOL+VAC>8 ?			
000210	> 12 *						--> NO			
000220	> 12 >		D	HRS=D9VAC	HRS?8					
000230	> 12 > *			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	HRS*0.5	*
000240	> 12 > * 1			HRS/1000	HRS*1000		ADDZL HOL	ADDZL S12		
000250	> 12 > >			HRS=D9HOL	HRS+D9VAC	HRS<D9DSC	HRSS8	ADDD9HBUZ	NEXTR	
000260	> 12 > > 1			HRS=8	HRS-D9VAC	ADDD9HBU	HRS=D9HBU	HRS*0.5	NEXTR	
000270	> 12 > > 2			HRS/1000	HRS*1000		ADDZL HOL	ADDZL S12		
000280	> 15		D	HRS=D9HOL	HRS+D9VAC	HRS?8	--> HOL+VAC>8 ?			

Time Types Used:

- 9HOL – Holiday Hrs
- 9VAC – Vacation Hrs
- 9DSC – Daily Scheduled Hrs
- 9HBU – Holiday Bump-Up Hrs

Flow Logic:

1. Check if holiday hours worked
2. Check what work schedule
3. Check if vacation hours reported
4. Add holiday to vacation hours
5. Set holiday plus vacation hours to a maximum of scheduled hrs
6. Deduct 8 hours
7. Multiply by 0.5
8. Round (Divide by 1000 then Multiply by 1000)
9. Generate wage type HOL
10. Generate differential wage type

Example 03 – Weekly Overtime

- **Customer requirement:**
 - ♦ Employees of states other than CA and OR should receive overtime payment for all hours in excess of 40 per week
 - ♦ This should exclude weekly “Compressed Overtime,” Weekly Holiday Bump-Up, Weekly Base Bump-Up, and Seventh-day Double-time
 - ♦ An overtime shift differential of either 10, 12, or 15% has to be paid for the weekly overtime hours based on the work schedule

Example 03 – Weekly Overtime (cont.)

- **Scenario:**

- ♦ Employee resides in AZ
- ♦ Employee reports 46 hours work per week
- ♦ Employee is assigned to a 15% differential work schedule
- ♦ Employee should receive the following wage types at the end of the week:
 - ▶ 40 Hrs BAS
 - ▶ 40 Hrs S15 (15% shift differential)
 - ▶ 6 Hrs OTN (overtime at 1.5)
 - ▶ 6 Hrs O15 (15% overtime differential)

Example 03 – Weekly Overtime (cont.)

- **Solution:**

- ♦ Use IT0001 Personnel Area field to determine employee location by state
- ♦ Define a time type to count the weekly work hours
- ♦ Define a time type to store the calculated overtime hours
- ♦ Define a time type to store the weekly compressed OT hours
- ♦ Define a time type to store the seventh-day DT hours
- ♦ Generate a wage type entry via operation ADDZL for the weekly overtime entry
- ♦ Generate a wage type entry via operation ADDZL for the overtime shift differential

Example 03 – Weekly Overtime (cont.)

Line	Var.Key	CL	T	Operation	Operation	Operation	Operation	Operation	Operation
000010			D	VARSTRDYPP				"END OF THE WEEK?"	
000020	**								
000030	07			HRS=D8VACAHRSS40	ADDD88ABA-NEXTR			"DED. VAC > 40 HRS	
000040	07		1 D	VALEN 2	OUTWPSHIFT			" WHAT DIFFERENTIAL?"	
000050	07	**		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000060	07	**	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN		
000070	07	10		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000080	07	10	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 010	
000090	07	12		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000100	07	12	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 012	
000110	07	15		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000120	07	15	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 015	
000130	14		D	VALEN 2	OUTWPSHIFT			" WHAT DIFFERENTIAL?"	
000140	14		1	HRS=D8VACAHRSS40	ADDD88ABA-NEXTR			"DED. VAC > 40 HRS	
000150	14	**		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000160	14	**	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN		
000170	14	10		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000180	14	10	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 010	
000190	14	12		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000200	14	12	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 012	
000210	14	15		HRS=D8ABA	HRSSD8BUM	HRSSD8HBU	HRSSD9WCN	NEXTR	
000220	14	15	1	HRSSD97DT	HRSS40	ADDD89WOTZADDZL	OTN	ADDZL 015	

Time Types used:

- 8VAC – Weekly Vacation Hrs
- 8ABA – Weekly Base Hrs
- 8BUM – Weekly Base Bump-Up Hrs
- 8HBU – Weekly Holiday Bump-Up Hrs
- 9WCN – Weekly Compressed OT
- 97DT – Seventh Day Double Time Hrs
- 9WOT – Weekly Overtime Hrs

Flow Logic:

1. Check if end of work week
2. Deduct Vacation Hrs > 40
3. Add Weekly Base Hrs to Hrs field
4. Deduct: Weekly Bump-Up, Weekly Hol. Bump-Up, Weekly Compressed OT, seventh Day DT
5. Deduct 40 hrs
6. Generate wage type OTN
7. Generate differential wage type base on schedule

Regression Testing

- **Why it is essential:**
 - ♦ Minimize risk of calculation errors due to changes
- **How you can manage:**
 - ♦ Set-up selected employees with specific scenarios
 - ♦ Document input and expected results
 - ♦ Recalculate all of these employees and compare results before and after change
- **Tools to support the regression test:**
 - ♦ “Clone” employees
 - ♦ Export PCL2 results to file via RPTBAL00
 - ♦ Compare files electronically via file comparison tools

Regression Testing (cont.)

- Define baseline data
- Define expected results

5		CWW Diff.						
SAP Pemr: 15000003		WS: 10330001						
11.5	Su	Mo	Tu	We	Th	Fr	Sa	Tot.
Day	1	2	3	4	5	6	7	
Scheduled	11.5	11.5	11.5	F	F	F	F	34.5
Worked	11.5	11.5	11.5	11.5				46.0
BAS	8.0	8.0	8.0	8.0				32.0
CON	3.5	3.5	3.5					10.5
OTN				3.5				3.5
DBL								
PBA	8.0	8.0	8.0					24.0
S10	8.0	8.0	8.0	8.0				32.0
O10	3.5	3.5	3.5	3.5				14.0
P10	8.0	8.0	8.0					24.0

6		CWW Diff.						
SAP Pemr: 15000007		WS: 10430003						
11.5	Su	Mo	Tu	We	Th	Fr	Sa	Tot.
Day	1	2	3	4	5	6	7	
Scheduled	11.5	11.5	11.5	11.5	F	F	F	46.0
Worked	11.5	11.5	11.5	11.5				46.0
BAS	8.0	8.0	8.0	8.0				32.0
CON	3.5	3.5	3.5	3.5				14.0
OTN								
DBL								
PBA	8.0	8.0	8.0	8.0				32.0
S10	8.0	8.0	8.0	8.0				32.0
O10	3.5	3.5	3.5	3.5				14.0
P10	8.0	8.0	8.0	8.0				32.0

Cumulated Time Evaluation Results: Time Balances/Wage Types

Selection options

Further selections: Matchcodes, Sort, Org. structure

Period: Today, Up to today, Other period (10/03/2004 to 10/09/2004), Current month, From today, Current year, Payroll period

Selection: Personnel number, Time data administrator

Further parameters: Selection conditions (Ind. day balances, Cumulated balances, Time wage types), Value limits (hours) for time/wage types, Org. units which can be printed

Pers.no.	Period	Date	WT	Number
15000003	200402	2/22/2004	BAS	8
15000003	200402	2/22/2004	CON	3.5
15000003	200402	2/22/2004	S10	8
15000003	200402	2/22/2004	O10	3.5
15000003	200402	2/23/2004	BAS	8
15000003	200402	2/23/2004	CON	3.5
15000003	200402	2/23/2004	S10	8
15000003	200402	2/23/2004	O10	3.5
15000003	200402	2/24/2004	BAS	8
15000003	200402	2/24/2004	CON	3.5
15000003	200402	2/24/2004	S10	8
15000003	200402	2/24/2004	O10	3.5
15000003	200402	2/28/2004	OTN	3.5
15000003	200402	2/28/2004	O10	3.5

7		CWW Diff. + OTN + CON + CWW Prem.						
SAP Pemr: 15000004		WS: 10430001						
11.5	Su	Mo	Tu	We	Th	Fr	Sa	Tot.
Day	5	6	7	1	2	3	4	
Scheduled	F	F	F	11.5	11.5	11.5	11.5	46.0
Worked	6.0	6.0	12.0	11.5	11.5	11.5	11.5	70.0
BAS	6.0	2.0		8.0	8.0	8.0	8.0	40.0
CON				3.5	3.5	3.5	3.5	14.0
OTN		4.0						4.0
DBL			12.0					12.0
PBA				8.0	8.0	8.0	8.0	32.0
S10	6.0	2.0		8.0	8.0	8.0	8.0	40.0
O10		4.0		3.5	3.5	3.5	3.5	18.0
D10			12.0					12.0
P10				8.0	8.0	8.0	8.0	32.0

8		CWW Diff. + Daily T			
SAP Pemr: 15000008					
11.5	Su	Mo	Tu	We	T
Day	1	2	3	4	
Scheduled	11.5	11.5	11.5	11.5	F
Worked	11.5	13.0	11.5	11.5	
BAS	8.0	8.0	8.0	8.0	
CON	3.5	3.5	3.5	3.5	
OTN		0.5			
DBL		1			
PBA	8.0	8.0	8.0	8.0	
S10	8.0	8.0	8.0	8.0	
O10	3.5	4.0	3.5	3.5	
D10		1.0			
P10	8.0	8.0	8.0	8.0	

ExamDiff Pro - C:\Temp\California072204-01.xls | C:\Temp\California072204.xls

Files Edit View Navigation Search Help

Diff 1: Add 2 lines (864 - 865, second file) after line 363 (first file)

Personnel	Period	Date	WT	Number
86215000074	200402	02/28/2004	OTN	4.00
86315000074	200402	02/28/2004	BAS	8.00
86415000075	200402	02/22/2004	D10	1.00
86515000075	200402	02/22/2004	DBL	1.00
86615000075	200402	02/23/2004	BAS	8.00
86715000075	200402	02/23/2004	CON	1.50
86815000075	200402	02/23/2004	S10	8.00
86915000075	200402	02/23/2004	O10	1.50
87015000075	200402	02/23/2004	OTN	0.50
87115000075	200402	02/23/2004	O10	0.50
87215000075	200402	02/24/2004	BAS	8.00
87315000075	200402	02/24/2004	CON	1.50
87415000075	200402	02/24/2004	S10	8.00
87515000075	200402	02/24/2004	O10	1.50
87615000075	200402	02/24/2004	OTN	0.50
87715000075	200402	02/24/2004	O10	0.50
87815000075	200402	02/25/2004	BAS	8.00
87915000075	200402	02/25/2004	CON	1.50
88015000075	200402	02/25/2004	S10	8.00
88115000075	200402	02/25/2004	O10	1.50
88215000075	200402	02/25/2004	OTN	0.50
88315000075	200402	02/25/2004	O10	0.50
88415000075	200402	02/26/2004	BAS	8.00
88515000075	200402	02/26/2004	CON	0.50
88615000075	200402	02/26/2004	S10	8.00
88715000075	200402	02/26/2004	O10	0.50
88815000075	200402	02/28/2004	DBL	2.50
88915000075	200402	02/28/2004	D10	2.50
89015000075	200402	02/28/2004	O10	1.50
89115000075	200402	02/28/2004	O10	1.50
89215000075	200402	02/28/2004	BAS	8.00
89315000075	200402	02/28/2004	S10	8.00

What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Integration of SAP Time Evaluation with SAP Payroll

- The integration is made in the gross part of SAP payroll via importing table *ZL* into payroll
- Table *ZL* is imported via function *IMPRT* and processed via function *ZLIT* in the payroll driver

Display Schema : UT00

Line	Func.	Par1	Par2	Par3	Par4	D	Text
000060	PRINT	NP	PCIP				Personal calendar: period view
000070	GENPS						Generate personal work schedule PWS
000080	PRINT	NP	PSP				Print PWS
000090	PARTT						Partial month parameter
000100	P2003		S**				Import shift substitutions into PWS
000110	PIT	U010	P01				Create valuation bases (addition) (tips)
000120	PIT	X013	P01				Create valuation bases (division)
000130	RAB						Import absences
000140	IMPRT		L				Import last result
000150	UNAB						Absence splits for US
000160	PRINT	NP	AB				Print absences
000170	IF		PDC				Is PDC active in period?
000180	IMPRT		B2				Import cluster B2
000190	PRINT	NP	ZL				Print table of time wage types
000200	PRINT	NP	PDC				Day processing of time data
000210	PRINT	NP	PDC				PDC not active in period
000220	PRINT	NP	PDC				Day processing of time data
000230	PRINT	NP	PDC				Endif PDC
000240	PRINT	NP	PDC				Weekly overtime analysis
000250	PRINT	NP	PDC				Edit absence data
000260	PRINT	NP	PART				Print partial month parameter
000270	PRINT	NP	PARX				Print cumulated absences
000280	PRINT	NP	ZL				Print table of time wage types
000290	PRINT	NP	IT				Print IT
000300	PRINT	NP	GEN	NOAB			Process employee remuneration info
000310	PRINT	NP	GEN	NOAB			Tip processing
000320	PRINT	NP	GEN	NOAB			Total tip allocation amounts
000330	PRINT	NP	GEN	NOAB			Val. bases for different payments
000340	PRINT	NP	ALP				Table of different payments
000350	PRINT	NP	PIT	X013		NOAB	Increased val.basis+extra pay+premium
000360	IF		UTRR				* If workweek and hourly paid
000370	COPY		UTR0				* FLSA: overtime valuation with reg.date
000380	ELSE						* Else usual valuation of time wage types
000390	ZLIT				ASXN		Time wage types in IT
000400	ZLIT				MYCR		Time wage types in IT

IF	PDC	Is PDC active in period?
IMPRT	B2	Import cluster B2
PRINT NP	ZL	Print table of time wage types

ZLIT	ASXN	Time wage types in IT
ZLIT	MYCR	Time wage types in IT
P0416		Valuation of time wage types

Integration of SAP Time Evaluation with Legacy Payroll

- The integration is made via exporting table ZL content to a sequential export file
- RPTEZL00 – this report is a standard delivered program, which extracts ZL data and creates a sequential dataset
- PU12 – Interface Toolbox can be used to extract data from PCL2 (B2)

PDC Time Evaluation: Supply Third-Party Payroll System (Example)

The screenshot shows a SAP selection screen for 'PDC Time Evaluation: Supply Third-Party Payroll System (Example)'. It features a title bar with a green checkmark, a blue 'f' icon, and a red flag icon. Below the title bar is a navigation bar with 'Selections from' and 'Search helps' buttons. The main area is divided into two sections: 'Payroll period' and 'Selection'. In the 'Payroll period' section, there is a 'Payroll area' field with a yellow bar and a lock icon, and two radio buttons: 'Current period' (selected) and 'Other period'. The 'Selection' section has 'Personnel Number' and 'Payroll area' fields, each with a yellow bar and a right-pointing arrow icon.

Interface Toolbox

The screenshot shows the 'Interface Toolbox' interface. It has a title bar with a green checkmark, a blue 'f' icon, and a red flag icon. Below the title bar is a navigation bar with three buttons: 'Export' (with a green checkmark icon), 'Export History' (with a yellow bar icon), and 'Configuration' (with a blue gear icon). The main area is divided into two sections: 'Export activities' and a bottom section. In the 'Export activities' section, there is a radio button for 'Export with interface format' (selected) and a yellow 'TIME' button with a lock icon.

What We'll Cover ...

- Introduction
- Time Evaluation
- Integration — How do all the components interact?
- Wage Type Generation via table T510S
- Real-life examples implemented in SAP
- Integration of SAP Time Evaluation with Payroll
- Wrap-up

Resources

- **SAP help documentation (<http://help.sap.com>)**
 - ◆ Human Resources → Personnel Time Management (PT) → Time Evaluation
- **SAP PDF document**
 - ◆ “Understanding Overtime Schemas and Rules in Payroll and Time Evaluation,” SAP Labs R/3 Simplification Group
- **Some helpful tools**
 - ◆ RPTABS00 – Display Time Types/Wage Types
 - ◆ RPDASC00 – Print Schema
 - ◆ RPUCTJ00 – Display Unused PCR

7 Key Points to Take Home

- The SAP Time Evaluation “toolbox” should give you enough flexibility to satisfy your business requirements
- Your employee hierarchy, work schedules, and absences/attendances are the foundation for time evaluation — keep this in mind during your design!
- Use employee subgroup groupings and personnel area groupings as much as you can — try to avoid building “hard-coded” rules
- Use SAP delivered schema/PCR templates as a baseline — don’t start from scratch

7 Key Points to Take Home (cont.)

- Don't be afraid to try functions and operations and build your own custom PCR's
- RPTIME00 stores results on a monthly basis —use daily time types and fill them via operation ADDDB for tracking period balances
- RPTIME00 does not “know” that you made configuration changes — retro calculations have to be “controlled”

Your Turn!



Questions?

**How to contact me:
Dirk Liepold
dirkl@rowsix.net**