

New Developments



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WCM Info Day

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Amsterdam, Netherlands

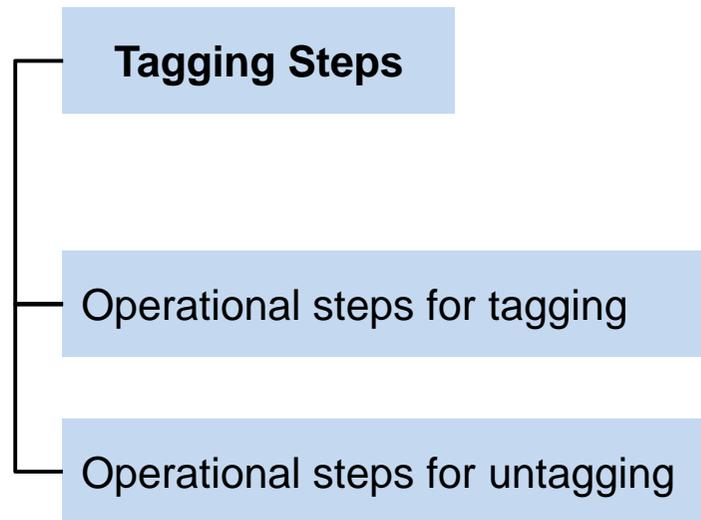
**International Conference on SAP Enterprise Asset
Management & SAP EHS Management 2010**
05 - 07 October 2010, Amsterdam



Agenda

- 1. Stepwise Tagging**
2. Work Permit Management
3. New IMG Activities
4. New BAdIs

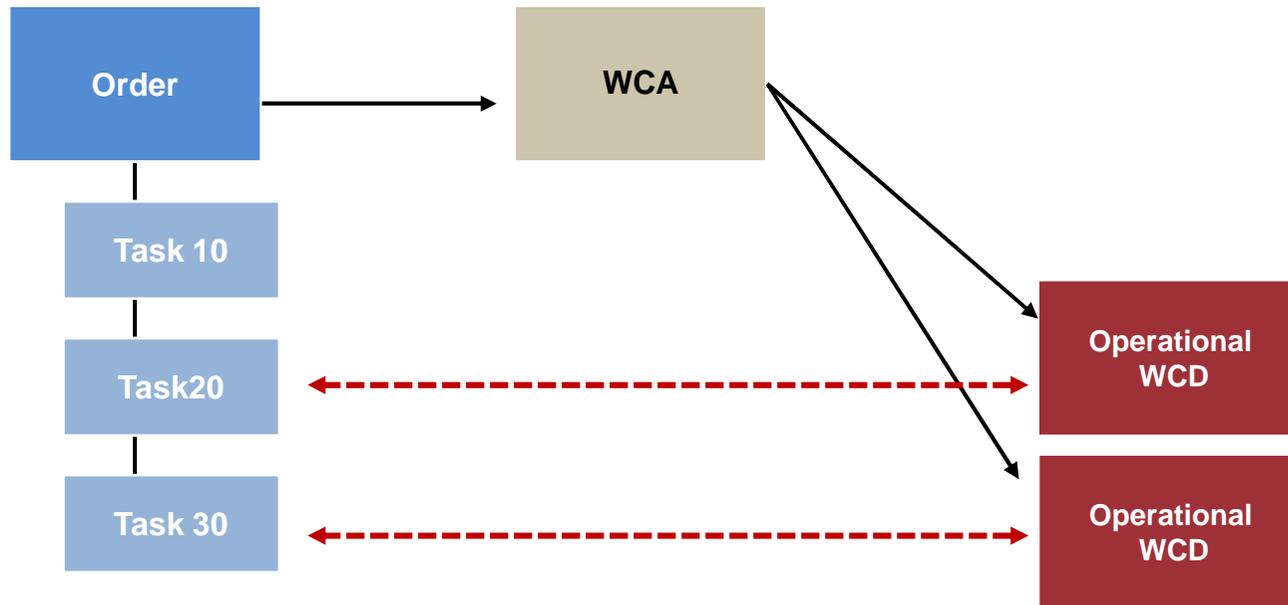
New Process: Stepwise Tagging



Operational step

An operational step can be a group of items or an operational WCD.

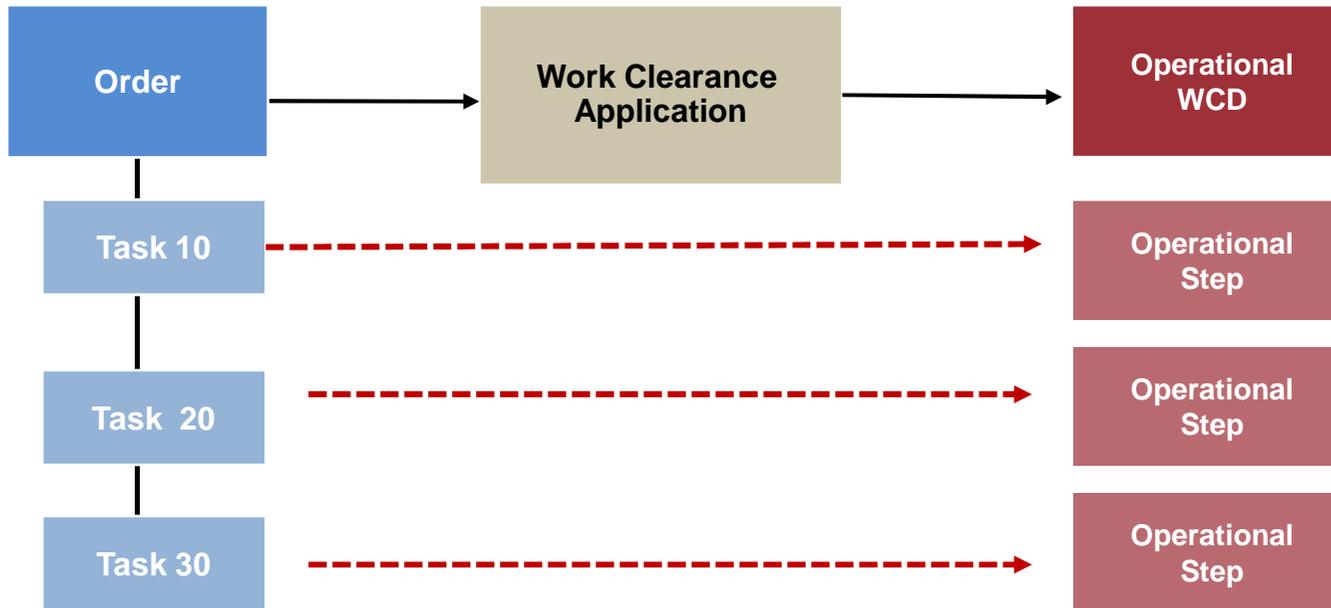
Stepwise Tagging I



You can define dependencies in both directions (Task <-> Operational WCD) using a BAdI Implementation (BAdI_WCM_Order) like:

- Tasks must be completed (Status „Work Completed“) before you can start an isolation.
- An isolations must be confirmed before you can start a task (Status „Released for Execution“).

Stepwise Tagging II



These operational steps are assigned to the individual operations. As soon as the tagging of an operational step has been confirmed, the corresponding operation can be carried out.

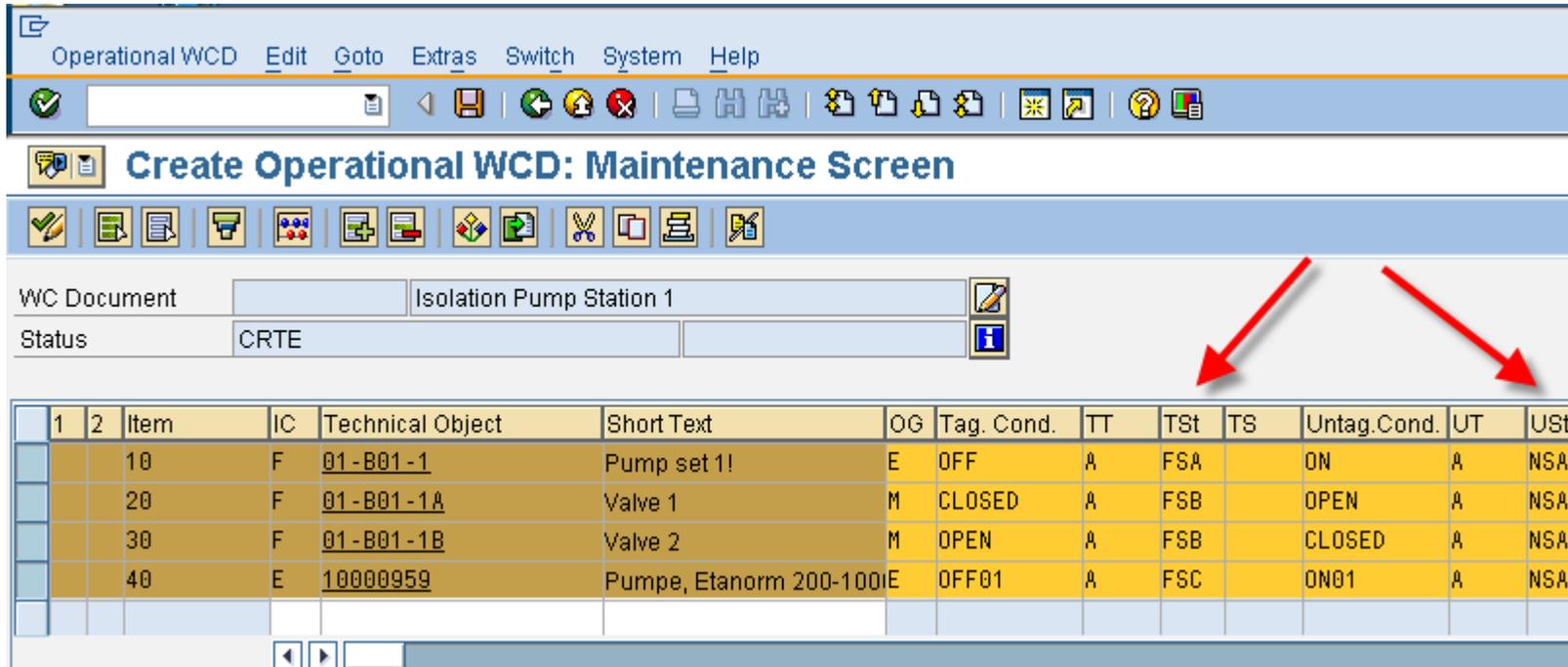
Operational WCD – Assign Tagging Steps

Operational WCD Edit Goto Extras Switch System Help

Create Operational WCD: Maintenance Screen

WC Document: Isolation Pump Station 1
Status: CRTE

1	2	Item	IC	Technical Object	Short Text	OG	Tag. Cond.	TT	TSt	TS	Untag.Cond.	UT	USt
		10	F	01-B01-1	Pump set 1!	E	OFF	A	FSA	ON	A	NSA	
		20	F	01-B01-1A	Valve 1	M	CLOSED	A	FSB	OPEN	A	NSA	
		30	F	01-B01-1B	Valve 2	M	OPEN	A	FSB	CLOSED	A	NSA	
		40	E	10000959	Pumpe, Etanorm 200-100	E	OFF01	A	FSC	ON01	A	NSA	



Important: It is only possible to enter operational steps on the single-line maintenance screen.



Agenda

1. Stepwise Tagging
- 2. Work Permit Management**
3. New IMG Activities
4. New BAdIs

Work Permit Management

- Approval Process
- Different Levels of Work Permits
- Assignment of different Work Permits to an order
- Temporal Control of Work Permits
- Integration into Maintenance Processes



Different Levels of Work Permits

- Work Permits of Level 1
 - High Risk
 - Short Time Frame

HOT WORK PERMIT

The on permitter, in issuing this permit, certifies that all safety factors have been considered and satisfied satisfactorily. Before this permit is issued, the permitter is to be aware of the conditions on the permit. The permitter will apply "no other" and is to be aware of the face of the permit.

ISSUED BY: _____
WWW.VOEGELING.COM

OTHER SIDE MUST BE FILLED OUT!

APPROVED BY: _____
DATE: _____ TIME: _____

HOT WORK PERMIT IS VALID FOR _____ HOURS ONLY
THIS PERMIT CAN BE REPAIRED FOR ONE USE ONLY
17.06.2010 10:21:19.000 P. 10. 10.21.19.000

REVERSE SIDE

1. Are all Hot Work Permit Permitters	DATE
2. Are all safety equipment (fire extinguishers, fire blankets, fire extinguishers, and fire extinguishers)	
3. Are all fire extinguishers	
4. Is the work area safe for the job?	
5. Are all safety covers	
6. Are all fire extinguishers and fire blankets	
7. Is the fire extinguisher	
8. Are all safety covers and extinguishers	
9. Are all safety covers and extinguishers	
10. Are all safety covers and extinguishers	

SEE OTHER SIDE

THIS PERMIT IS A LABEL FOR ONLY ONE USE
If Modified, It's THE END OF THE HOT WORK PERMIT

- Work Permits of Level 2
 - Lower Risk
 - Long Time Frame



Agenda

1. Stepwise Tagging
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- 3. New IMG Activities**
4. New BAdIs

New IMG Activity for Applications (WAPIs) Define Work

- In this IMG activity you define the settings for work.
- You can use groupings to group work and distribute it to different subscreens.

The screenshot displays the 'Work Description' tab of a software interface. It features two columns of work items, each with a checkbox. The left column is titled 'Work (1)' and contains the following items: Hot Work A, Hot Work B, CmHn Systems, and Radioactive Material. The right column is titled 'Work (2)' and contains the following items: Pressure Testing, Wells, Lifting Operations, and Other Activities. The interface also shows other tabs: Asset Data, Responsibilities, and Requirements.

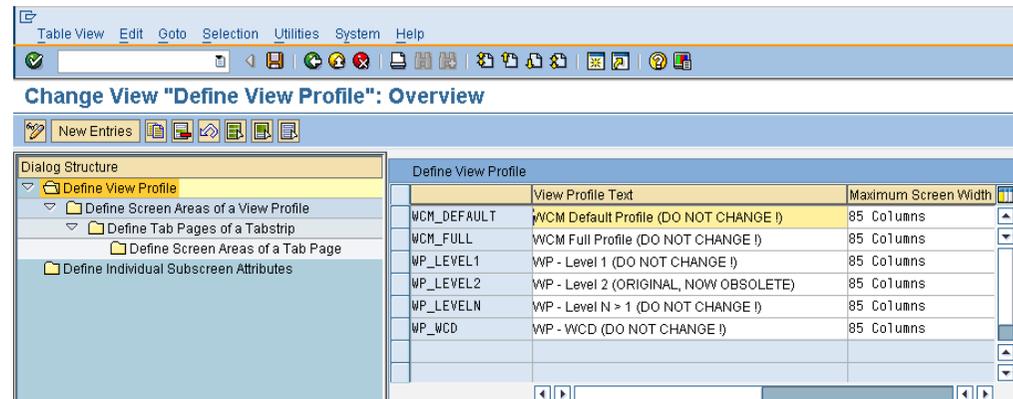
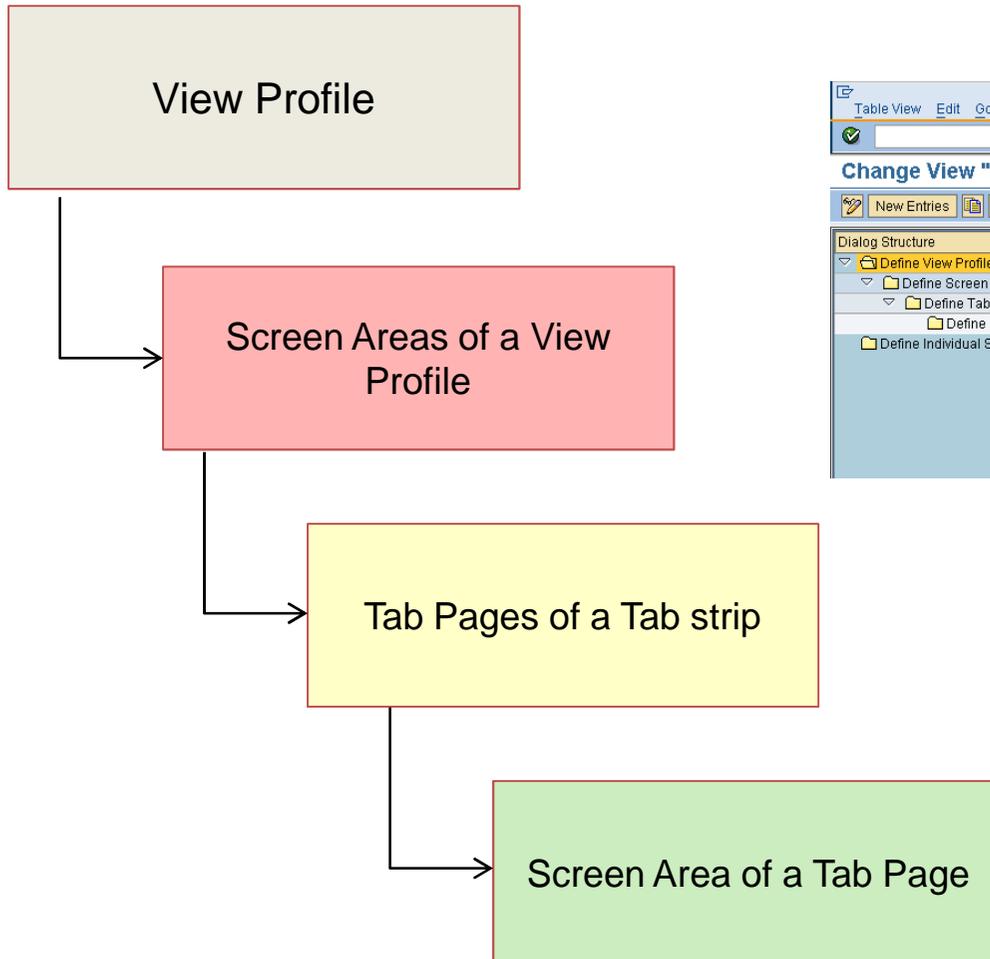
New IMG Activity for Applications (WAPIs) Define Requirements

- In this IMG activity you define the settings for requirements.
- You can use groupings to group requirements and distribute them to different subscreens.

The screenshot shows the 'Requirements' tab selected in a software interface. The interface is divided into two main sections: 'Requirements (1)' and 'Requirements (2)'. Each section contains a list of requirements with checkboxes.

Requirements (1)	Requirements (2)
<input type="checkbox"/> Guard/Radio	<input checked="" type="checkbox"/> Depressurization
<input type="checkbox"/> Barriers/Signs	<input checked="" type="checkbox"/> Draining/Emptying
<input checked="" type="checkbox"/> PA Announcements	<input type="checkbox"/> Prevent Oil and Gas
<input type="checkbox"/> Job Safety Analysis	<input type="checkbox"/> Radioact. Radiation
<input checked="" type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Fire Prevention

View Profiles



New Features for the Use of Applications (WAPIs)

■ Offset in Days

You can shift the start of an application's validity. You therefore have the option of creating the applications earlier.

■ Validity of WCM Object in Hours / Validity Extension in Hours

You define both the duration of the validity and the extension of the validity.

■ Maximum Extension of Validity in Hours

You also decide on the maximum extension for an application.

Planning Plant	3200
Usage	001
Descript. Usage	Usage 001

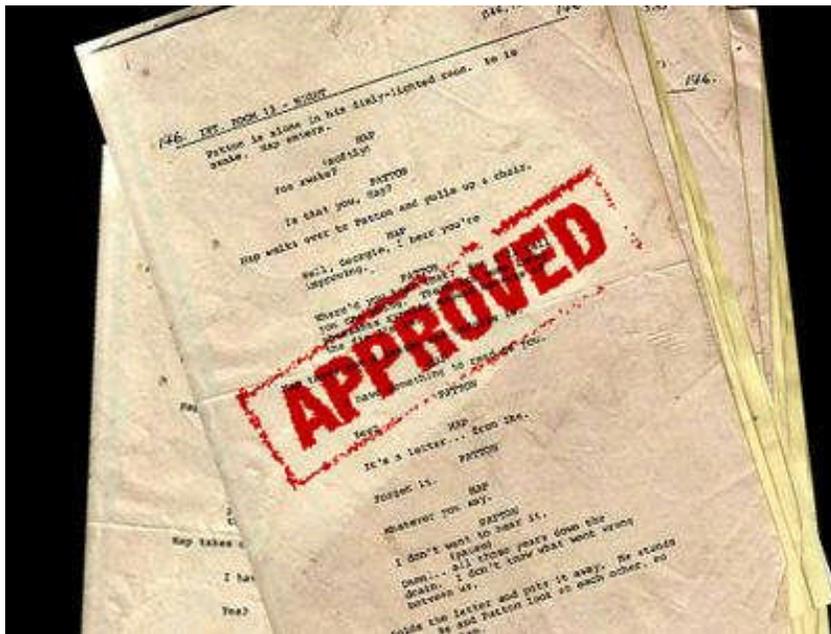
Maintain Usages	
Offset	1
ValidFrm Time	08:00:00
Validity	8
Extension	4
Max. Extension	4

New Features for the Approvals

Automatic Assignments of Approvals

You can determine that approvals are assigned automatically when the status PREP (Prepared) is set for a WCM object.

- Approval determination from a **reference object**:
- Approval determination from **operational steps**:
(Only for Operational WCDs)



New Features for the Approvals

Automatic Assignments of Approvals

- **Approval determination from **work** or **requirements**:**
(Only for Operational WCDs)

➤ **If this is not sufficient yet...**

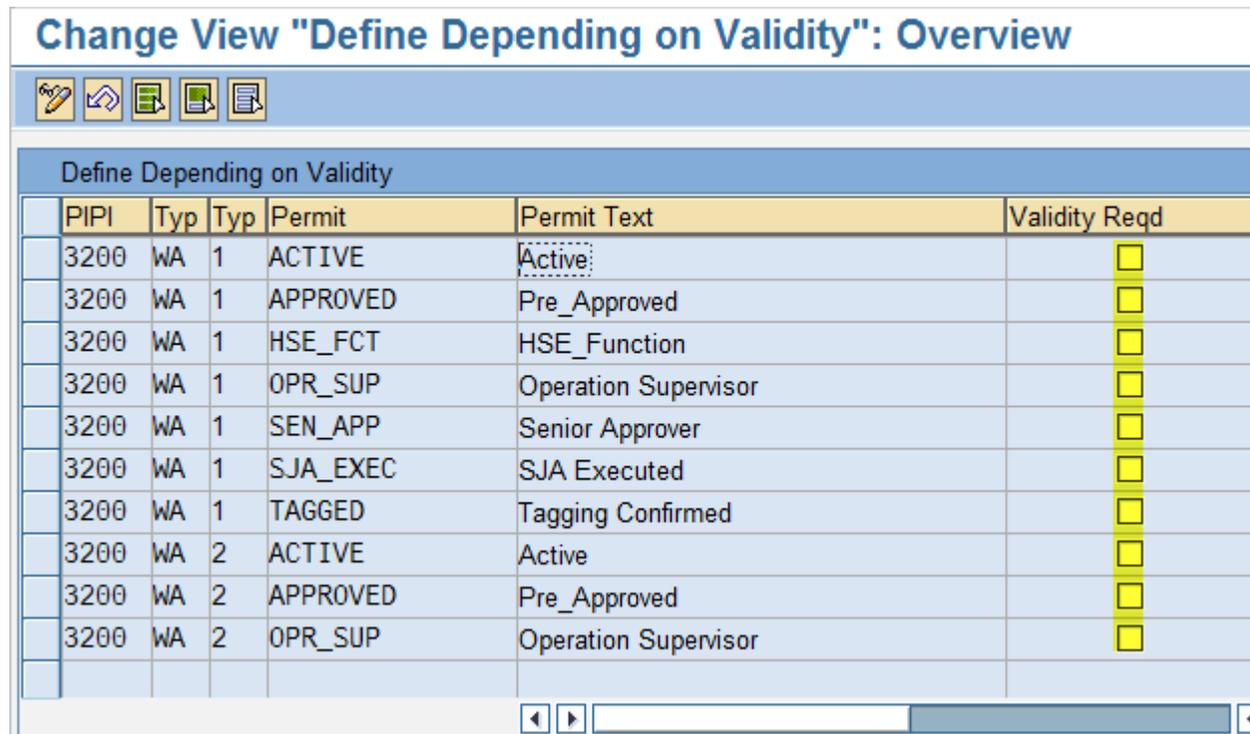
- **Business Add-Ins BADI_WCM_APPROVAL**

You can use the method `AUTOMATIC_ASSIGNMENT` to automatically assign approvals to a WCM object.

New Features for the Approvals Block Issuing of Approvals

- New IMG Activity – Define Depending on Validity
- In this IMG activity, you make the settings with which you can couple the issuing of approvals to the validity of WCM objects. This means that the issuing of these approvals is only possible if the WCM object is valid.

Change View "Define Depending on Validity": Overview



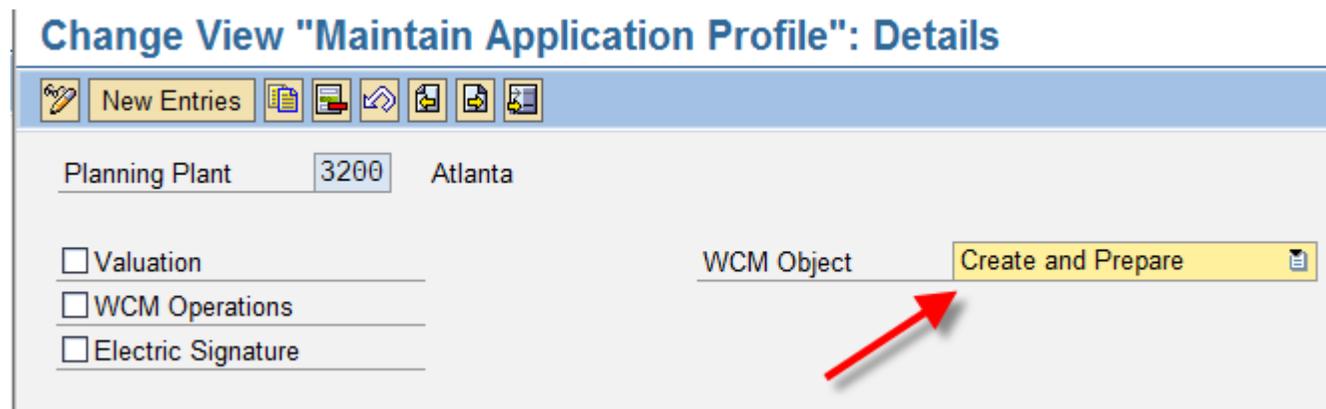
PIPI	Typ	Typ	Permit	Permit Text	Validity Reqd
3200	WA	1	ACTIVE	Active	<input type="checkbox"/>
3200	WA	1	APPROVED	Pre_Approved	<input type="checkbox"/>
3200	WA	1	HSE_FCT	HSE_Function	<input type="checkbox"/>
3200	WA	1	OPR_SUP	Operation Supervisor	<input type="checkbox"/>
3200	WA	1	SEN_APP	Senior Approver	<input type="checkbox"/>
3200	WA	1	SJA_EXEC	SJA Executed	<input type="checkbox"/>
3200	WA	1	TAGGED	Tagging Confirmed	<input type="checkbox"/>
3200	WA	2	ACTIVE	Active	<input type="checkbox"/>
3200	WA	2	APPROVED	Pre_Approved	<input type="checkbox"/>
3200	WA	2	OPR_SUP	Operation Supervisor	<input type="checkbox"/>



Enhanced IMG Activity Application Profile

Processing Rule for Automatic Creation of WCM Object

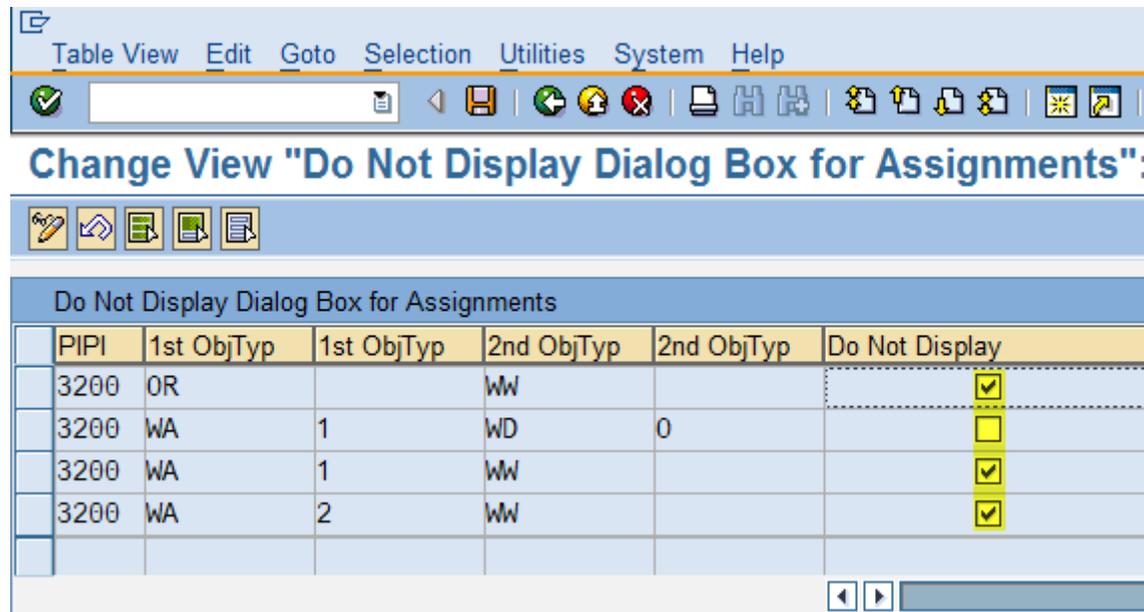
- Defines whether a WCM object for a WCM-relevant order is created automatically **on saving**.
- You can also define whether the WCM object is to be **prepared** immediately.



New IMG Activity

Do Not Display Dialog Box for Assignments

- In this IMG activity you define whether the dialog box for assignment is displayed.
- If you work with work permits, we recommend that you hide the dialog box for assigning work approvals.



The screenshot shows the IMG software interface. At the top, there is a menu bar with options: Table View, Edit, Goto, Selection, Utilities, System, and Help. Below the menu bar is a toolbar with various icons. The main window title is "Change View 'Do Not Display Dialog Box for Assignments':". Below the title bar is another toolbar with icons for editing and viewing. The main content area displays a table with the following data:

PIPI	1st ObjTyp	1st ObjTyp	2nd ObjTyp	2nd ObjTyp	Do Not Display
3200	OR		WW		<input checked="" type="checkbox"/>
3200	WA	1	WD	0	<input type="checkbox"/>
3200	WA	1	WW		<input checked="" type="checkbox"/>
3200	WA	2	WW		<input checked="" type="checkbox"/>

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New Business Add-Ins

BAdIs to Extend the List Processing

- BAdI: List Editing for Work Approvals (WAPs)
- BAdI: List Editing for Applications (WAPIs)
- BAdI: List Editing for Work Clearance Documents (WCDs)
- BAdI: List Editing for Operational Lists (Tagging-/Untagging Lists)
- BAdI: Selection of Work Clearance Documents
- BAdI: List Editing for Lineups
- BAdI: List Editing for Work Permits
- BAdI: Assignment of Orders
- BAdI: Assignment of Work Approvals
- BAdI: Assignment of Applications
- BAdI: Assignment of Operational WCDs
- BAdI: Multilevel List Editing

New Business Add-Ins

BAdIs to Extend the Menu for List Processing

- BAdI: List Editing for Work Approvals
- BAdI: List Editing for Applications
- BAdI: List Editing for Work Clearance Documents
- BAdI: List Editing for Operational Lists
- BAdI: Selection of Work Clearance Documents
- BAdI: List Editing for Lineups
- BAdI: List Editing for Work Permit
- BAdI: Assignment of Orders
- BAdI: Assignment of Work Approvals
- BAdI: Assignment of Applications
- BAdI: Assignment of Operational WCDs
- BAdI: Multilevel List Editing

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