

Order Processing With Easy WCM

WCM GmbH

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wcm

Motivation

Asset intensive industries not only have high requirements to hold their plants and maintenance processes running, but also security for maintenance personnel is of vital importance.

SAP component “Work Clearance Management” supports this process and supports therefore as well security and health of your personnel.

However there are companies which require a fast and simple logout/tagout process. This presentation show an easy use of this SAP component .



Process Description (1)

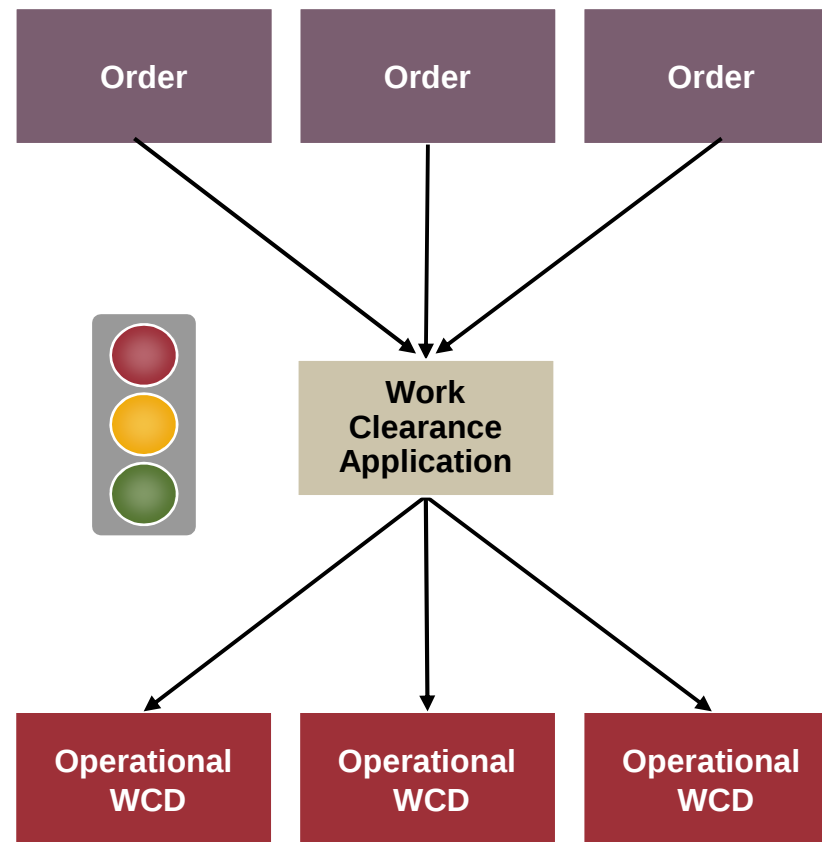
- The feed water pump set needs to be maintained on a regular basis. Therefore exist maintenance plans in the system. The pump set needs to be isolated (tagged).
- There is a maintenance plan with an item and an assigned task list. One operation of the task list includes a WCD template.
- The maintenance plan is scheduled.
- A batch program (RIWC0016) generates the WCM objects to the maintenance order.
- The Operational WCD is checked and the status “prepared” is set.
- The operational lists for tagging and the tags are printed.
- On site tagging is carried out and confirmed on the Operational WCD.
- The maintenance planner gets the information that all isolations are confirmed (order status “Released for execution”).
- Maintenance is now able to carry out the repair.

Process Description (2)

- After successful repair the order is finished by the maintenance planner (work completed).
- This means that the safety planner gets information that the isolation can be removed (untagging).
- After the confirmation of the untagging the WCM objects will be completed.

Model

We use the standard model for this process.



Roles

These user roles are involved in this process:

- Maintenance planner



- Safety planner



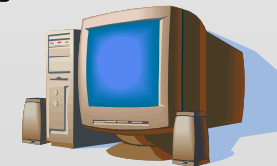
- Safety engineer



- Operation

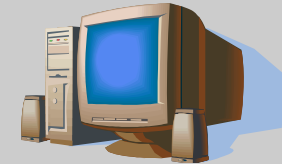


- SAP System

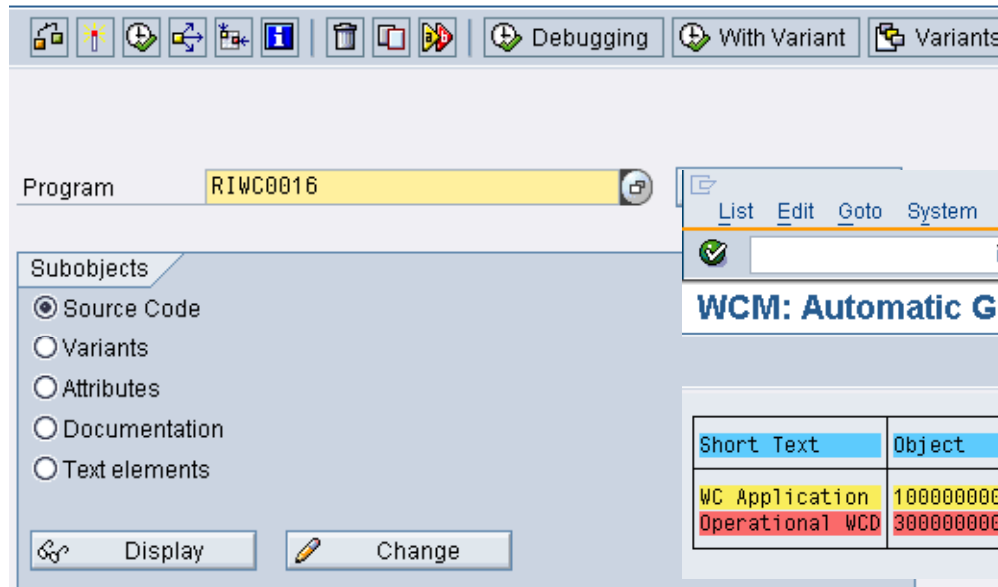




Detailed Process Batch Processing



ABAP Editor: Initial Screen



The Batch Program RIWC0016 generates in the background a Work Clearance Application and an Operational WCD.

Detailed Process Multi-Level List Editing



Multi-Level List Editing - Change

1000

- 817804 WCM K1-B01 10.05.2009-20.05.2009 K1-B01
WCM CRTD MANC NMAT PRC
- 1000000000303 WCM K1-B01 13.05.2009-20.05.2009 K1-B01
CRTE
- 3000000000302 Isolation pump set K1-B01 13.05.2009-13.05.2010 K1-B01

The multilevel list shows the order, the work clearance application and the Operational WCD. Taking this list as a base, it is possible to navigate to every object. The red lights show, that an approval has not yet been granted.

Detailed Process

Operational WCD: Printing of Tags



Operational WCD Edit Goto Extras Switch System Help

Change Operational WCD: Switching Screen

WC Document 300000000302 Isolation pump set K1-B01

Status PREP ITG

CONF ITG PTAG ETG EUG INAC

0 4 0 0 0 0

1	2	Item	IC	Technical Object	Short Text	O	Tag. Cond.	TT	TS	Untag. Cond.	UT	US
		10	F	K1-B01-1	Pump set 1	E	AUS	A	10	AN	A	10
		20	F	K1-B01-1A	Valve 1	M	ZU	A	20	AUF	A	40
		30	F	K1-B01-1B	Valve 2	M	ZU	A	40	AUF	A	20
		40	E	P-1000-DF01	Electric pump 001	E	AUS	A	30	AN	A	30

The tags are printed.

Detailed Process

Operational WCD: Printing of the Tagging List



The screenshot shows the 'Operational WCD' software interface. The menu bar includes 'Operational WCD', 'Edit', 'Goto', 'Extras', 'Switch', 'System', and 'Help'. The 'Edit' menu is open, showing options like 'Select', 'Clipboard', 'Insert', 'New Lines', 'Delete Lines', 'Deactivate Lines', 'Number Lines', 'Set Untagging Sequence', 'Adjust Untagging', and 'Sort'. The 'Print' option is highlighted, which has opened a sub-menu. In this sub-menu, 'Operational List' is selected, which has further opened a third-level menu where 'Tagging List' is highlighted. Other options in the 'Print' sub-menu include 'Copies' and 'Preprint Tag'. The background shows a 'Matching Screen' with a table of items.

1	2	Item	IC	T	nd.	U
	10	F	K1-B01-1A	Valve 1	A	A
	20	F	K1-B01-1B	Valve 2	A	A
	30	F	P-1000-DF01	Electric pump 001	A	A
	40	E			A	A

Now the tagging list is printed. The tagging list shows all items with the required tagging condition.

Detailed Process

Operational WCD: Confirmation of the Tagging



Multi-Level List Editing - Change

1000

- 817804 WCM K1-B01 10.05.2009-20.05.2009 K1-B01
WCM CRTD MANC NMAT PRC
- 1000000000303 WCM K1-B01 13.05.2009-20.05.2009 K1-B01
PREP ○○■
- 3000000000302 Isolation pump set K1-B01 13.05.2009-13.05.2010 K1-B01
PREP PROC ETG ○○■

The Operation team confirms the tagging. The traffic lights switch to green.

Detailed Process Order Processing

The screenshot shows the WCM software interface. At the top is a menu bar with 'Order', 'Edit', 'Goto', 'Extras', 'Environment', 'System', and 'Help'. Below the menu is a toolbar with various icons. The main window title is 'Change Regular Maintenance Order 817804: Central He'. Below the title is another toolbar with icons and a 'WC Application' button. A red arrow points to a 'Work completed' button. Below this is a data entry area with fields for 'Order' (PM02 817804), 'WCM K1-B01', and 'Work completed'. Below this is a 'Sys.Status' field with the value 'WCM EXEC CRTD MANC NMAT PRC'. Below the status field is a tabbed interface with tabs for 'HeaderData', 'Operations', 'Components', 'Costs', 'Partner', 'Objects', and 'Additions'. The 'HeaderData' tab is selected. Below the tabs is a 'Person responsible' section with fields for 'PlannerGrp' (100 / 1000), 'Hr. Weber', 'Mn.wk.ctr' (MECHANIK / 1000), 'Mechanical maintainer', and 'Person Resp'. To the right of this section are fields for 'Notifctn', 'Costs', 'PMActType' (102), and 'Regular maintainer'.

The order status “Released for execution” is set by the system as soon as all isolations are confirmed. The maintenance team can now start the work.
When the maintenance work is finished, the maintenance planner sets the status “Work completed”.

Detailed Process

Operational WCD: Perform Untagging



Operational WCD Edit Goto Extras Switch System Help

Change Operational WCD: Switching Screen

Untagged

WC Document: 300000000302 Untagged (Ctrl+F6) K1-B01

Status: PREP PROC UNT ETG

CONF ITG PTAG ETG EUG INAC

0 0 0 4 0 0

1	2	Item	IC	Technical Object	Short Text	O	Tag. Cond.	TT	TS	Untag. Cond.
		10	F	K1-B01-1	Pump set 1	E	AUS	A	10	AN
		20	F	K1-B01-1A	Valve 1	M	ZU	A	20	AUF
		30	F	K1-B01-1B	Valve 2	M	ZU	A	40	AUF
		40	E	P-1000-DF01	Electric pump 001	E	AUS	A	30	AN

The untagging is performed and confirmed in the system.

Detailed Process

Operational WCD: Complete the Operational WCD



The screenshot shows the 'Operational WCD' software interface. The menu bar includes 'Operational WCD', 'Edit', 'Goto', 'Extras', 'Switch', 'System', and 'Help'. The 'Functions' menu is open, showing options: 'Prepared', 'Complete' (highlighted), 'Reject', 'Active <-> Inactive', and 'Deletion Flag'. The main window displays 'Operational WCD: Switching Screen' with a table of technical objects.

1	2	Item	IC	Technical Object	O	Tag. Cond.	TT	TS	Untag. Co
		10	F	K1-B01-1	E	AUS	A	10	AN
		20	F	K1-B01-1A	M	ZU	A	20	AUF
		30	F	K1-B01-1B	M	ZU	A	40	AUF
		40	E	P-1000-DF01	E	AUS	A	30	AN

As the last step of the process, the Operational WCD must be completed.

Questions and Answers



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