

ERP-625 Restriction on posting changes in EWM

Status	Approved
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Stakeholders	PALMER, Francine HOWES, JamieRIZOS, Antonios VENKAT-ext, Rama
Jira Request ID	 ERP-467 - Jira project doesn't exist or you don't have permission to view it.
Jira Development ID	 ERP-625 - Jira project doesn't exist or you don't have permission to view it.

High- Level Specification

Parameter	Value
Application System	S/4Hana ROW, S/4Hana China, S/4Hana CUI
Business Process Reference	06.11.03.02. Process Posting Changes in EWM

Functional Overview

The functional design of the enhancements describes the scenario(s) where enhancements to existing SAP programs are required.

Integration Topic #322

Topic:

Restriction on posting changes in EWM:

*from Blocked -> to Unrestricted status
from Quality -> to Unrestricted status*

Description:

Business require that stock movements from stock types blocked or quality status to unrestricted status can only be performed by operators having Quality roles and not by the operators having warehouse roles. This is required so that unauthorized users are not able to perform the stock movements especially when the stocks are in quality status and or blocked status for quality reasons.

In EWM system, such movements are done at warehouse monitor level which is a single transaction. This transaction also include multiple objects and functionalities to support warehouse operations and therefore restricting any authorization at the transaction level could jeopardise other functionalities in EWM monitor. Moreover such movements are required to be restricted only in specific directions meaning from quality to unrestricted and not the other way round.

For this reason, there will be enhancement required to provide authorization control at the specific execution object level in the monitor so that other objects are not affected and that the enhancement will ensure that specific stock type movements are restricted based on the new authorization object.

Solution Key Considerations:

Stock type changes – SAP EWM

- Enhancement via BADI implementation (/SCWM/EX_CORE_GM_STOCK - KBA 3157694) to control the authorization at sub object level which invoke the posting change transaction in the monitor
- Provide custom authorization object that will be checked as a part of enhancement to validate and allow transaction to be completed to the authorized roles where the object is assigned. Such roles will be assigned to the required users from quality
- Enhancement framework / Parameterization via soft config to validate applicable sites and control the stock type movements

Process Impact:

Posting Change / Ad-hoc stock type movements in EWM

- During execution of stock type posting changes, warehouse operator should not be able to move stocks from quality to unrestricted or blocked to unrestricted.
- Ability for quality roles to be able to perform stock type changes.

Scope and Objectives

The scope of this enhancement :

- 1) Create a new custom authorization object. The new authorization object will be used for validation during execution of the posting change transaction as a part of authorization check.
- 2) Create custom / enhancement framework table to allow activation / deactivation of enhancement , define control parameters/variables , Inclusion /exclusion option for organizational values and stock type directions (Q*F*). The table will need to be transportable.
- 3) Implement BADI enhancement to validate if the enhancement is active and if they satisfy conditions defined in the control parameters and to execute checks for the authorization object.

Objective: To restrict stock type movements from quality or blocked to unrestricted stock type for warehouse operative or warehouse clerk roles.

Screen shot: Transaction /SCWM/MON

The screenshot displays the SAP Warehouse Management Monitor (SCWM/MON) interface. The left sidebar shows a navigation tree with 'Stock Overview' selected. The main area is divided into two sections: 'Stock Overview' and 'Physical Stock'.

Stock Overview Table:

Ty	Storage Bin	Resource	Internal TU Number	Transportation Unit	Carrier	Incoming Quantity	Outgoing Quantity	Available Qty BUoM
V001	001.01.00					0,000	0,000	3,000
V001	001.01.00					0,000	0,000	1,536,000
V001	001.01.01					0,000	0,000	2,000
V001	001.01.01					0,000	0,000	12,000
V001	001.01.01					0,000	0,000	8,000
V001	001.02.00					0,000	0,000	19,760,000
V001	001.02.01					0,000	0,000	6,000

Physical Stock Table:

Ty	Change Attributes	Unit	Product	Product Short Description	Quantity	BUoM	S	Description of Stock Type	Batch
V01	Repair Batch Attributes	8000007802	ZSF_DD_001	FIN produced QM active	5	KG	Q4	Q4	0000000107
Y91	Change Alternative UoM	00000000616	ZSF_DD_001	FIN produced QM active	5	KG	Q4	Q4	0000000109
Y91	Create Insp. (Q175)	00000000531	ZSF_DD_001	FIN produced QM active	5	KG	Q4	Q4	0000000109
Y91	Change Product or Batch	80000007772	ZSF_DD_001	FIN produced QM active	1	KG	Q4	Q4	0000000105
Y91	Change Stock Type	80000009909	ZSF_DD_001	FIN produced QM active	2	KG	Q4	Q4	0000000105
Y91	Change Stock Owner and Usage	80000007727	ZSF_DD_001	FIN produced QM active	4	KG	Q4	Q4	0000000154
Y91	Change Stock Owner and Usage	80000007512	ZSF_DD_001	FIN produced QM active	1	KG	Q4	Q4	0000000151
Y91	Change Stock Owner and Usage	80000009909	ZSF_DD_001	FIN produced QM active	4	KG	Q4	Q4	0000000153
Y91	Change Sales Order or Project	80000007632	ZSF_DD_001	FIN produced QM active	1	KG	Q4	Q4	0000000153

Screen Shot: Transaction /SCWM/POST

SAP Posting Change for Warehouse Number 1010

Posting Change ▾ Edit ▾ Goto ▾ Environment ▾ Settings ▾ System ▾ Help ▾

Show: Find: MATNR Product EWM54-03

Posting Change

Total Stock: 1,000 PC Whse Process Type: 1 / 1

Reason:

Add. Text:

Prod Exec. Date: 00:00:00 Wave:

Available Qty. Buclmt: 1,000 PC

Avail. Qty. Alt. Uclmt: 1,000 PC

Qty f. Post. Change: PC

Serial No. Reqmt:

Source Resource:

Source TU:

Source Carrier:

Stor. Bin: Y920 Y001 G1-Y001 Specif.

Handling Unit: 11234567800003804

Product: EWM54-03

Large Part, Slow-Moving Item

Batch: Restricted use

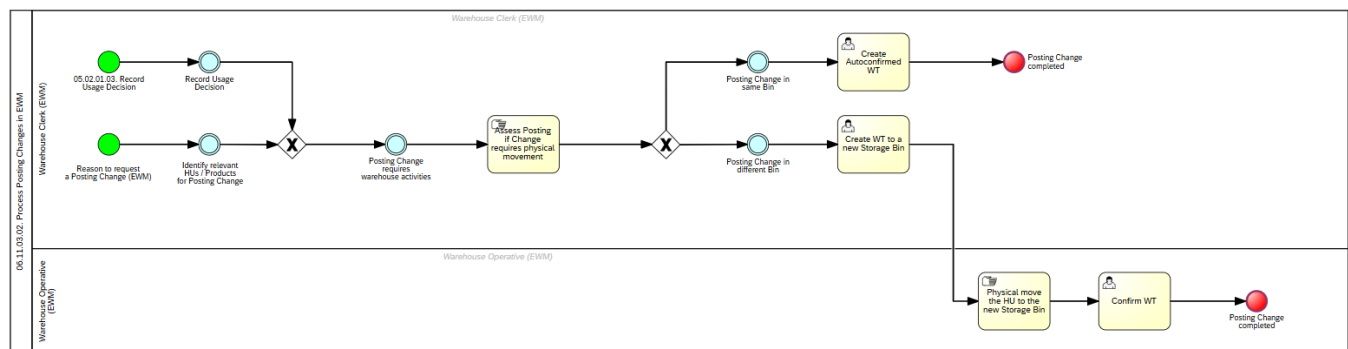
Stock Type: B5 B5 F2 B5

Disposal Party: 10411010 Werk 1010 als Geschäftspartner / 69190 W 10411010 10411010 Werk 1010 als Geschäftspartner / 69190 Walldorf

Owner: 10411010 Werk 1010 als Geschäftspartner / 69190 Walldorf 10411010 Werk 1010 als Geschäftspartner / 69190 Walldorf

Usage:

Process Flow Diagram



Assumptions

Not Applicable

Dependencies

Not Applicable

Security, Integrity and Controls

Follow calling Programs authorization check in the Badi explained in the above sections.

The calling program / Badi implementation to perform authorization check for the new authorization object. Only when the new authorization object is available in the roles assigned to the user, should the execution of the transaction be allowed. In the event of no authorization object available to the user via role, error message should be raised.

Configuration Requirements

Not Applicable

Language Requirements

Error message translation to be made available to reflect the custom messages are displayed when logged on specific language

Standard languages available in KDD055:

4 Core Languages (English, French, Italian and Mandarin) and additional language support (Brazilian Portuguese, German, Spanish and Thai).

Special Requirements

Not applicable.

Design Rationale

Functional Requirements

As-Is (Business process)

- The stock type transfer from quality to unrestricted or blocked to unrestricted is only be done by quality users
- Warehouse users are restricted to carry out such stock type movements (to unrestricted , once moved to quality or blocked stock)

SAP standard (EWM)

- SAP EWM support movement of stock type from one to another via EWM Monitor where the stock line can be selected and the stock type can be changed
- This is a single transaction that has many sub objects and therefore, the authorization object at transaction level cannot be used as other functionalities in the monitor will be affected
- Authorization restriction alone at movement type level in S4 ERP would mean potential queue failures when messages are sent from EWM to ERP.

Solution Key Considerations

Stock type changes – SAP EWM

- Enhancement via BADI implementation (/SCWM/EX_CORE_GM_STOCK - KBA 3157694) to control the authorization at sub object level which invoke the posting change transaction in the monitor
- Provide custom authorization object that will be checked as a part of enhancement to validate and allow transaction to be completed to the authorized roles where the object is assigned. Such roles will be assigned to the required users from quality
- Enhancement framework / Parameterization via soft config or enhancement framework configuration table to validate applicable sites and control the stock type movement directions

Proposed Technology to Use

SAP standard BADI: /SCWM/EX_CORE_GM_STOCK

Data Source Considerations

Not Applicable

Table	Field Name	Comments/Calculation/Field Manipulation

Data Validation Considerations

Not applicable

Table	Field Name	Comments/Calculation/Field Manipulation

Custom Tables

A new enhancement framework table will need to be created. This will be required to control the activation/deactivation of enhancement and to define the parameters (organizational entities and transactional objects). The table entries will be transportable and will be maintained by the functional / IT team as a part of solution deployment for the sites. This will provision the parameters for the execution of checks for the activated enhancement . The values defined for the parameters could be a wildcard in such cases all the values should be accepted as validated.

Field	Description	Data Type/Length	Validation rule/ Value Help
Active	Enhancement Active/Not active	Char/1	Checkbox , if selected , the enhancement is active else not
LGNUM_INC	Warehouse Number (Inclusion Values)	Char/4	Check table /SCWM/T300. Allow validation for wildcard entry (****)

LGNUM_EXC	Warehouse Number (Exclusion Values)	Char/4	Check table /SCWM/T300. Allow validation for wildcard entry (****)
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FROM_CAT	From Stock Type	Char/2	Check Data element /SCWM/DE_CAT
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TO_CAT	To Stock Type	Char/2	Check Data element /SCWM/DE_CAT
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PROC_CAT	Process Category	Char/1	Check field TRART , Data element /SCWM/LVS_TRART
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Master Data

Not Applicable

Field	Description	Data Type/Length	Validation rule/ Value Help

Configuration Table

Not Applicable

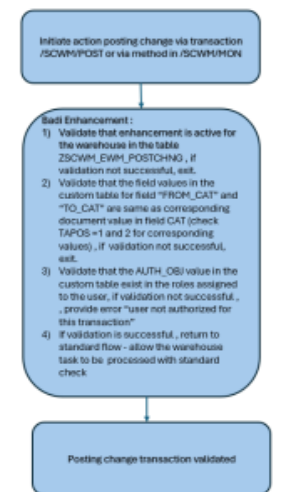
Selection Screen Enhancement

Not Applicable

Field Name	Description	Select:	Data Type/Length	Default Value/ Validation rule/ Value Help	Selection Logic

Processing Logic

Below steps will happen while restriction on posting changes in EWM are performed:



Step	Description	Comment
1	Initiate action posting change via transaction /SCWM/POST or via method in /SCWM/MON	Check if the BADI is being called when executing both transactions
2	Validate that enhancement is active for the warehouse in the custom table , if validation not successful, exit.	Badi enhancement flow logic
3	Validate that the field values in the custom table for field "FROM_CAT" and "TO_CAT" are same as corresponding document value in field CAT (check TAPOS =1 and 2 for corresponding values) , if validation not successful, exit.	Badi enhancement flow logic
4	1)Validate that the AUTH_OBJ value in the custom table exist in the roles assigned to the user, if validation not successful , , provide error "user not authorized for this transaction"	Badi enhancement flow logic
5	If validation is successful , return to standard code - allow the warehouse task to be processed with standard check	Badi enhancement flow logic

Volumetrics

Not Applicable

Performance Considerations

Not applicable

Error Handling

Error message should be displayed as explained in the process flow step section above.

Testing

How to Test

Test Conditions and Expected Results

ID	Condition	Expected Result
1	Pre-condition: The authorization object is not assigned to any role assigned to you as a tester . Use transaction /SCWM/MON. Open node stock and bin and double click the option stock overview. Select the stock line with stock type Q* or B* and click on physical stock button. Select the line in the physical stock and click button more methods. Select option "change stock type". On the pop up screen , enter the stock type F2 and click on create posting change	Error Message: you are not authorized for this transaction
2	Pre-condition: The authorization object is assigned to any role assigned to you as a tester . Use transaction /SCWM/MON. Open node stock and bin and double click the option stock overview. Select the stock line with stock type Q* or B* and click on physical stock button. Select the line in the physical stock and click button more methods. Select option "change stock type". On the pop up screen , enter the stock type F2 and click on create posting change	Stock type posting change successfully executed and warehouse task is created
3	Pre-condition: The authorization object is not assigned to any role assigned to you as a tester . Use transaction /SCWM/POST. Select material with existing stock in stock type Q or B*. Enter posting change quantity , process type as 9999 and enter/change target stock type to F2 and hit save.	Error Message: you are not authorized for this transaction
4	Pre-condition: The authorization object is assigned to any role assigned to you as a tester . Use transaction /SCWM/POST. Select material with existing stock in stock type Q or B*. Enter posting change quantity , process type as 9999 and enter/change target stock type to F2 and hit save.	Stock type posting change successfully executed and warehouse task is created

Test Considerations/Dependencies

Not Applicable

Other Information

Development Details

Package

Package Name	Parent Package

Enhancement Implementation

Enhancement Type	Standard Definition Name	Custom Implementation Name	Design Rationale Reference
BADI implementation	/SCWM/EX_CORE_GM_STOCK	/ZSCWM/EX_CORE_GM_STOCK	NA

Other Development Objects

Not Applicable

Object Type	Object Name	Purpose/High Level Logic	Design Rationale Reference

Appendix

Custom Authorization Group Naming Convention

This table is based on the Syensqo development standards document. It provides the naming conventions for authorization groups to associated with custom reports and tables to comply with security requirements.

ABAP	ZFI	ZMM	ZPS	ZCO	ZSD	ZBC	ZFI	ZCA
TABLES	ZFIT	ZMMT	ZPST	ZCOT	ZSDT	ZBCT	ZFIT	ZCAT

See also

Not Applicable

File	Modified
No files shared here yet.	

Change log

Version	Published	Changed By	Comment
CURRENT (v. 18)	Dec 15, 2025 01:45	AGUADO-ext, Alvaro	
v. 17	Nov 20, 2025 00:07	AGUADO-ext, Alvaro	
v. 16	Nov 19, 2025 09:32	PANDIT-ext, Sunil	
v. 15	Nov 19, 2025 07:27	WEINERT-ext, Patrick	
v. 14	Nov 18, 2025 16:20	PANDIT-ext, Sunil	
v. 13	Nov 13, 2025 12:37	WEINERT-ext, Patrick	
v. 12	Nov 13, 2025 10:35	PANDIT-ext, Sunil	
v. 11	Oct 21, 2025 22:36	AGUADO-ext, Alvaro	
v. 10	Oct 13, 2025 11:21	PANDIT-ext, Sunil	
v. 9	Oct 10, 2025 17:14	PANDIT-ext, Sunil	

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Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

Jan 09, 2026	Actor	Type	Activity	Version
Approved	 VENKAT-ext, Rama	State	changed state to Approved at 2:55 pm	v18

Lead Approval	 VENKAT-ext, Rama	State	gave <i>POD Lead Review</i> approval at 2:55 pm	
			<i>Reviewed and approved</i>	
Dec 17, 2025				
	 TORRES-ext, Benedict	State	changed expiry date to '24 Dec, 2025 07:54 am' at 7:54 am	
		State	changed state to Lead Approval at 7:54 am	v18
Edited following Tech Review	 TORRES-ext, Benedict	State	gave <i>Minor change</i> approval at 7:54 am	
			<i>Approving after minor change</i>	
Dec 15, 2025				
	 AGUADO-ext, Alvaro	Edit	updated the page at 1:45 am	
		State	changed state to Edited following Tech Review at 12:45 am	v18