Change Order

Updated as of 8/11/2016

Change Order (CO)

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Change Order (CO)

Objectives

Learning Objectives

At the end of this module you should now be able to:

Explain and work within the CO Process

Know about the Simple Route driven CO Process

Create a CO

Transfer objects from the CR to the CO
Internal Process (Request by Engineering)

Release an Object with the CO

Implement the CO

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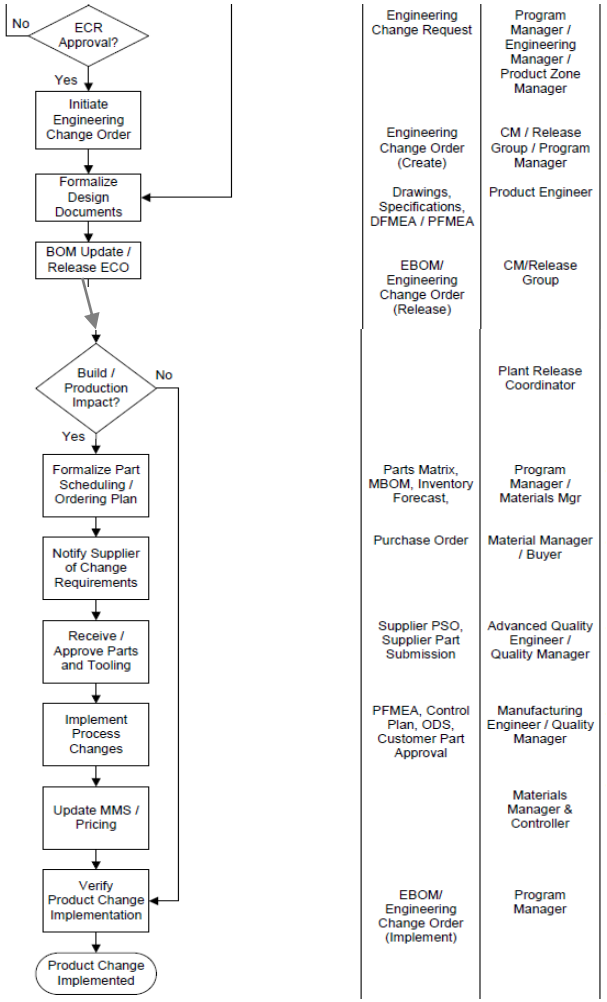
5. **References**

Change Order (CO)

What is a CO?

Definition



Engineering Change Request	Program Manager / Engineering Manager / Product Zone Manager
Engineering Change Order (Create)	CM / Release Group / Program Manager
Drawings, Specifications, DFMEA / PFMEA	Product Engineer
EBOM/ Engineering Change Order (Release)	CM/Release Group
	Plant Release Coordinator
Parts Matrix, MBOM, Inventory Forecast,	Program Manager / Materials Mgr
Purchase Order	Material Manager / Buyer
Supplier PSO, Supplier Part Submission	Advanced Quality Engineer / Quality Manager
PFMEA, Control Plan, ODS, Customer Part Approval	Manufacturing Engineer / Quality Manager
	Materials Manager & Controller
EBOM/ Engineering Change Order (Implement)	Program Manager

CO = <u>Change Order</u>

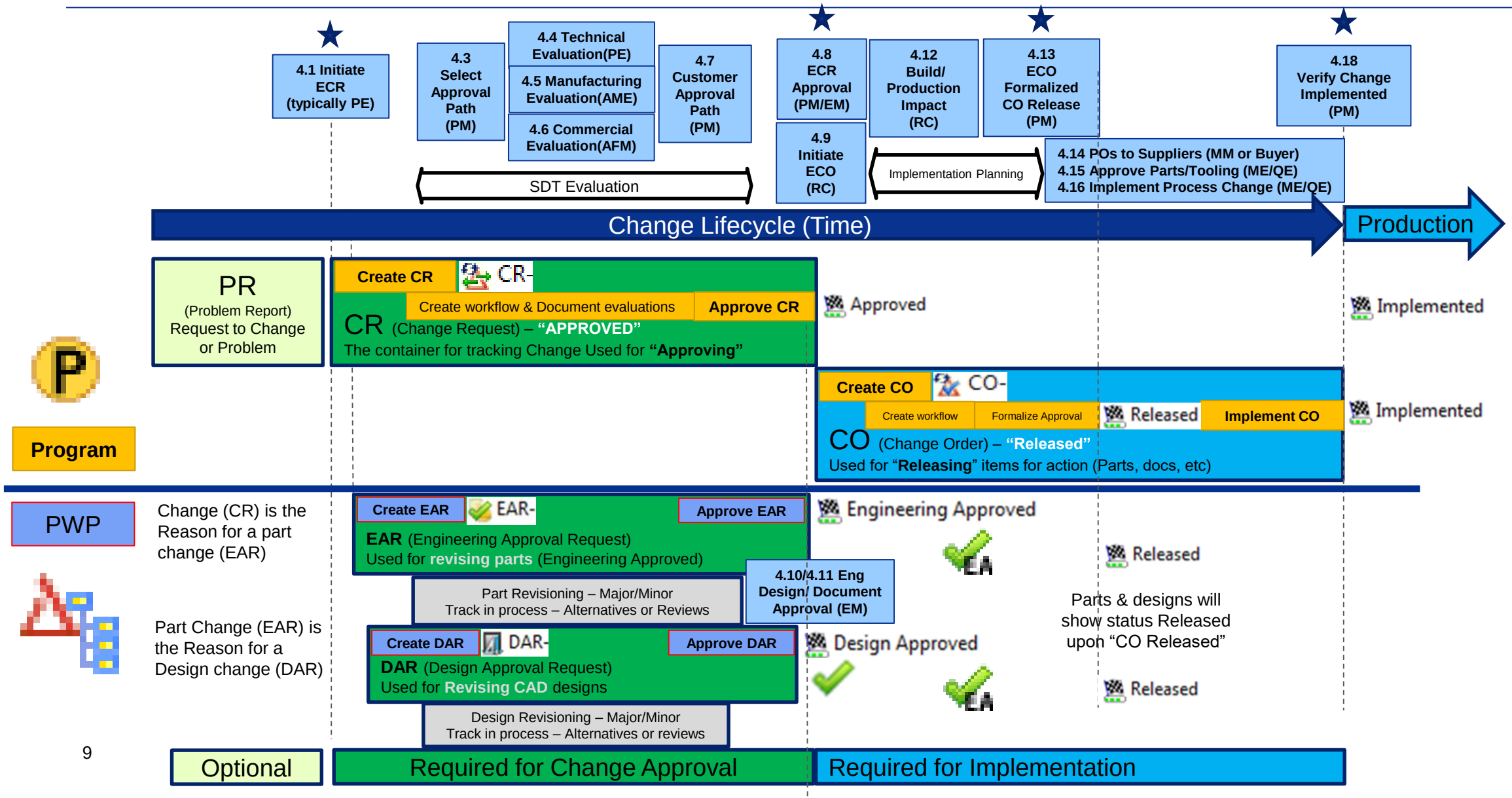
The **CO** authorizes the SDT to make an initial release and/or to change the prototype or product. Furthermore it establishes a target for implementation of the product changes at each plant affected. The **CO** authorizes all impacted Functions/Departments to proceed with implementation of the product change.

The **CO** is released after all **<u>Engineering Approval Request (EAR)</u>** and **<u>Change Request (CR)</u>** <u>approvals</u> have been completed and the initiated or changed affected Parts, EBOMs, 2D drawings and 3D are approved.

4.9 Initiate Engineering Change Order: The Program Manager / Simultaneous Development Team (SDT) identifies whether the approved change will be implemented independently or grouped with other approved changes. This decision is documented by the CM / Release Group on an ECO form

Release group creates the CO

Change Lifecycle

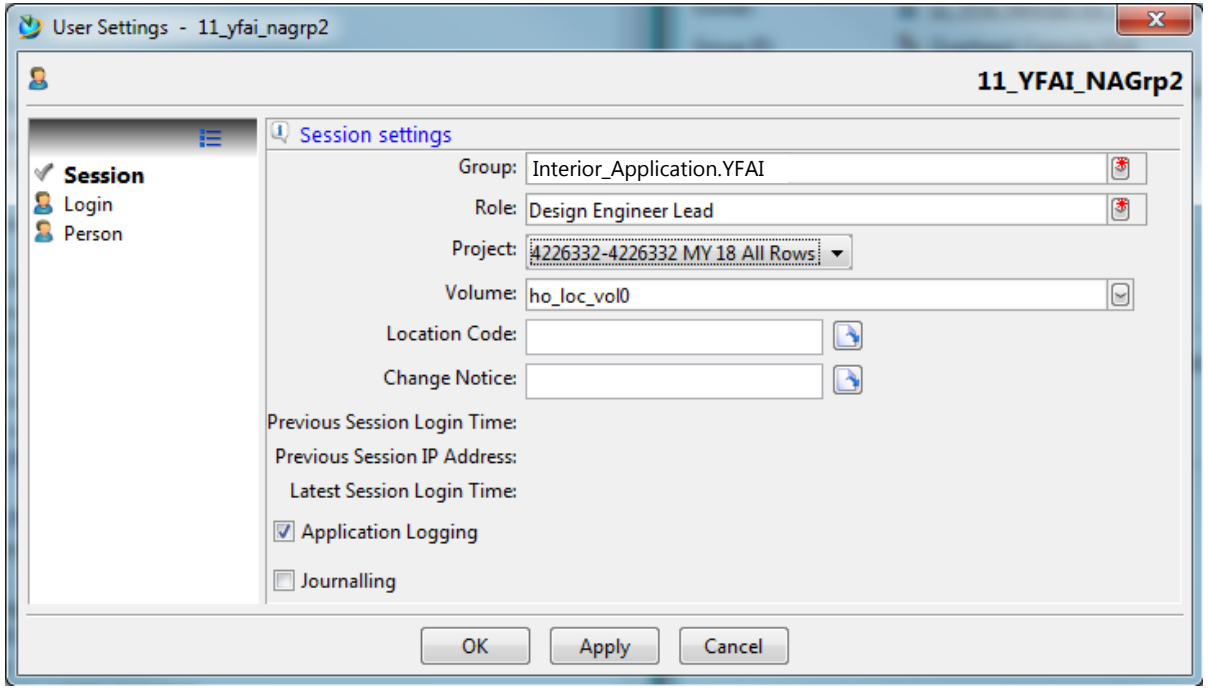


Change Order (CO)

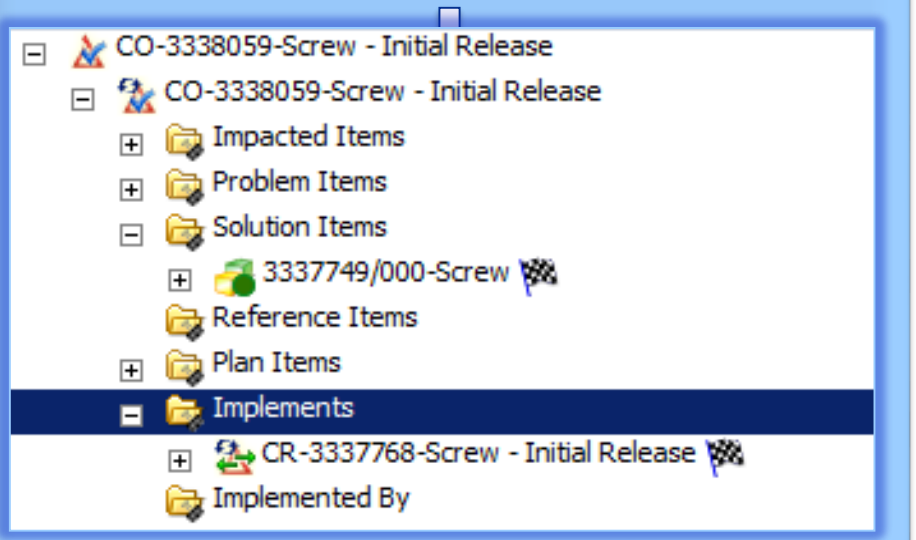
Creating a Change Order (CO)

Prerequisites

Please make sure that you set the right session settings, that means that you create your CO in the right program context (not PWP)!

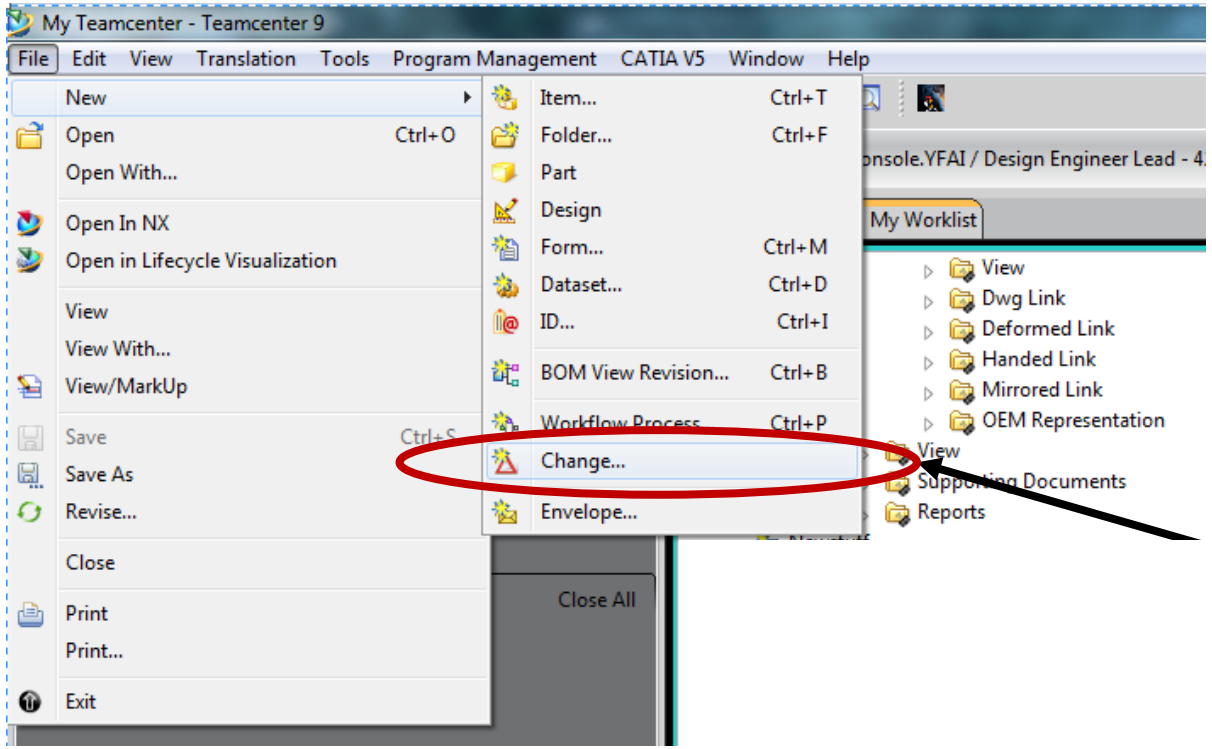


You can release only Engineering Approved and CR approved Parts on a CO!



You can only create CO‘s in programs that you are a team member of.

Create CO (PLC)



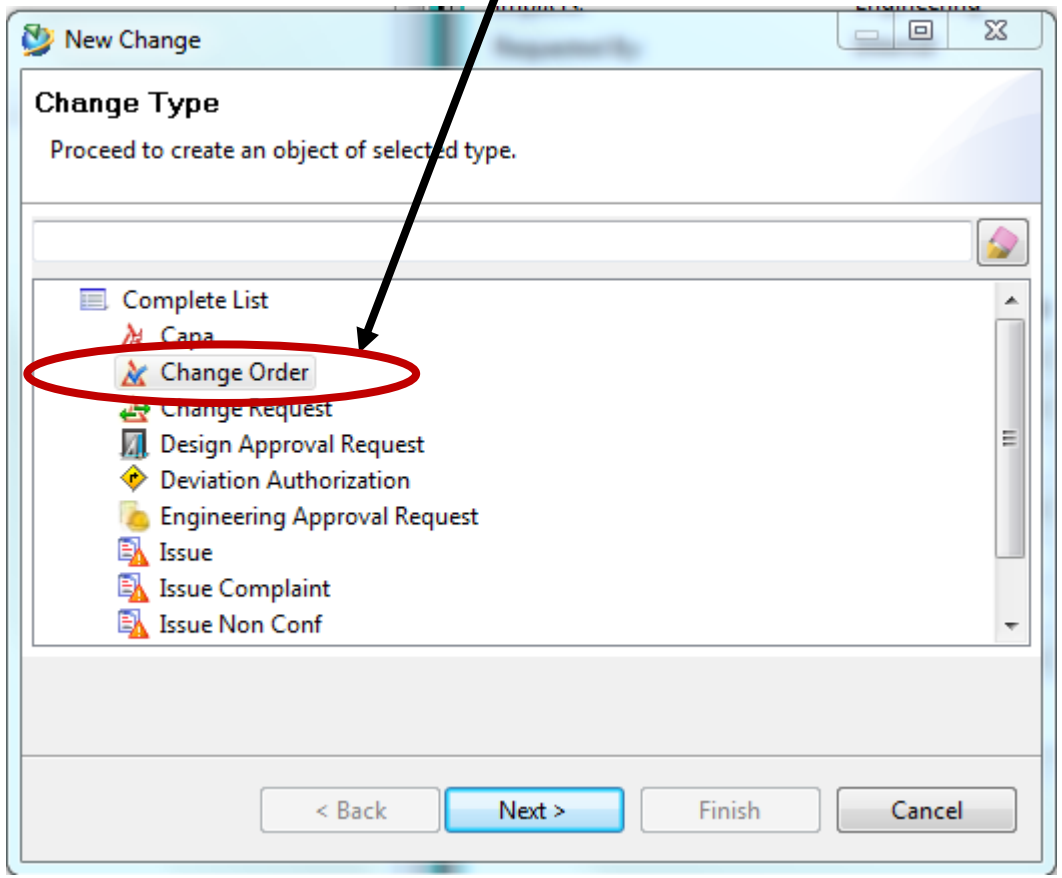
1. Target the location to create your CR (typically the CR folder inside the Program folder).

2. File > New > Change

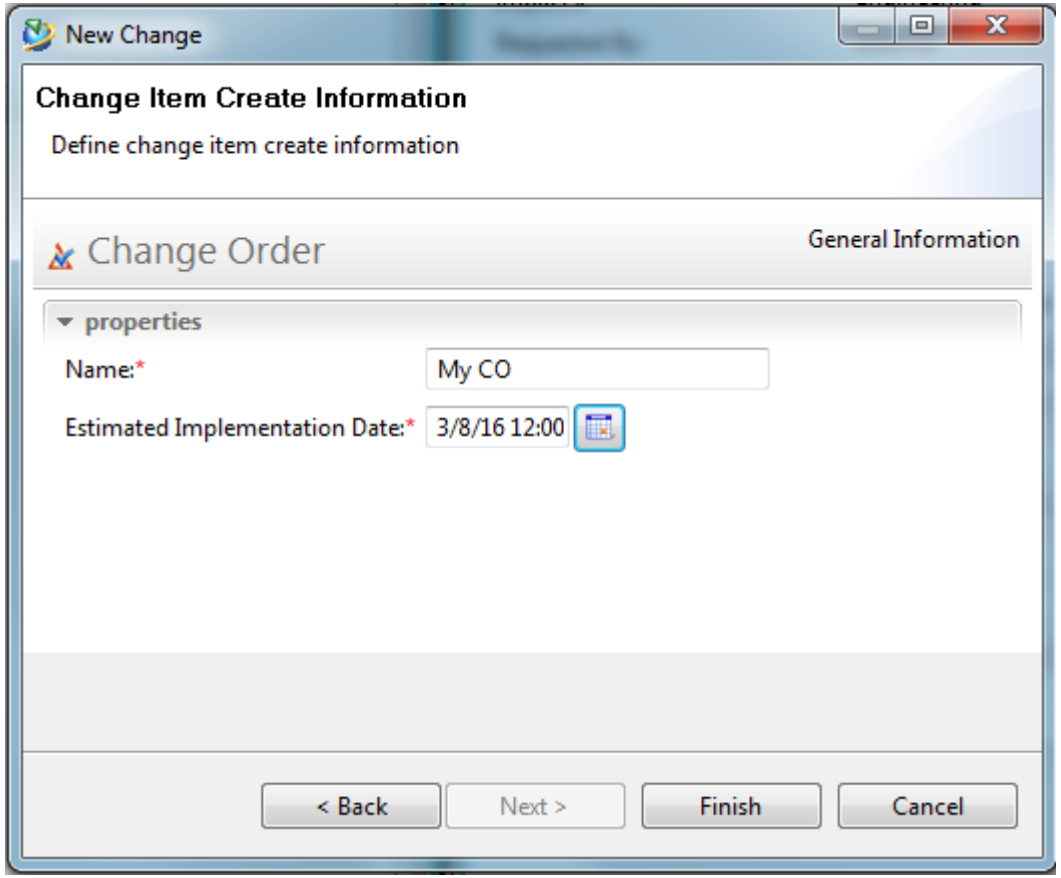
Release group creates the CO

Create CO

Select **Change Order** > **Next >**



Give your CO a **Name** and select an **Estimated Implementation Date** > **Finish**



CO Folder Structure

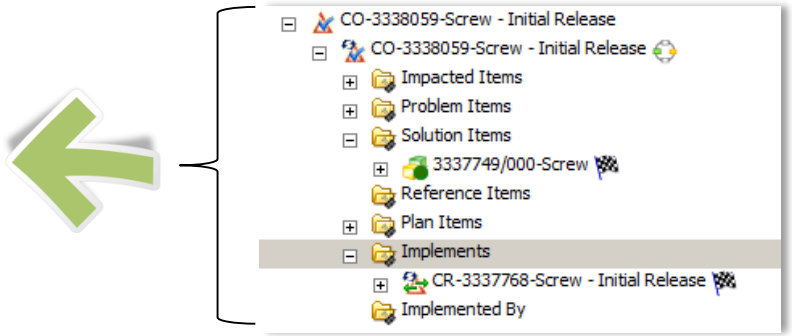
Which data can you store where:

Impacted Items
Automatically populated when CR is added to the Implements folder

Problem Items
Not used

Solution Items
Parts that need to be released. (Must be populated to release CO)
Automatically populated when CR is added to the Implements folder

Reference Items
Additional documents & information (e.g. pictures, customer agreements, test documents related to the change etc.)

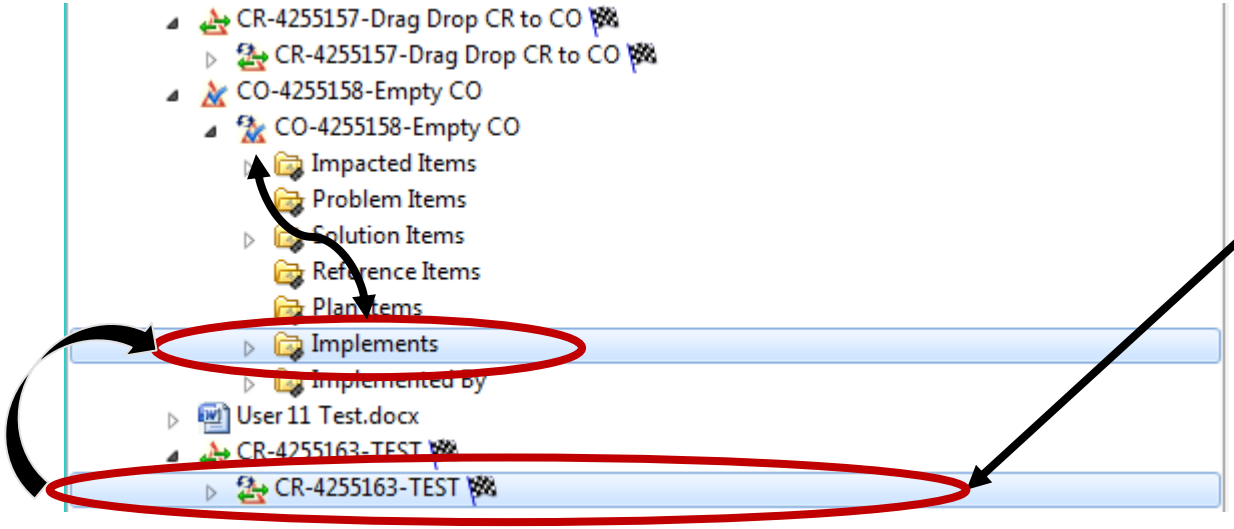


Plan Items
Schedule for implementation & deliverables (filled only when schedule process is used)

Implements
CRs associated to the CO

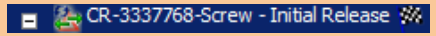
Implemented By
Not used

Create CO out of the CR



Drag and drop the **Approved** CR Item Revision onto the CO **Implements** folder.

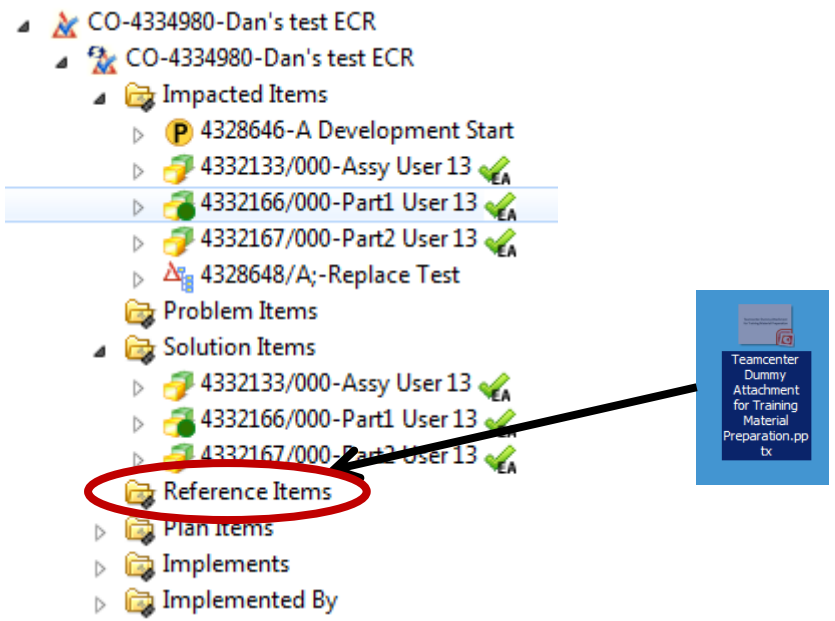
Please keep in mind that the CR needs to be on Approval status Approved



before you can release the CO.

You can continue **drag-drop** of multiple CR‘s into a single CO this way.

Create CO – Add Attachments



Note: All documents in CR‘s (that is being implemented by this CO) **Reference Items** folder with transfer automaticly to the CO‘s **Reference Items** folder.

Attachments can be added to the **Reference Items** via **Drag & Drop.**

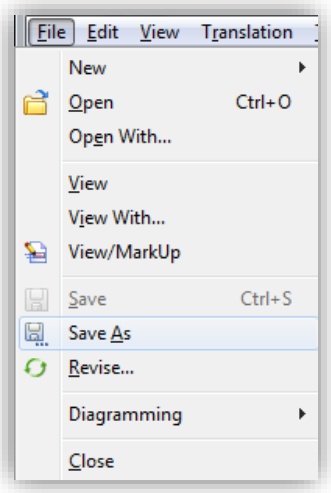
Any team member with write access to Program can add documents and will have access to see other documents added

Oops! - CO created in the wrong program...

Your CO is always created in the program to which you are currently logged in.

Solution:

1) Change your session settings
2) Mark the CO Item
3) Go to the top menu: **File** > **Save as...**
4) In the *Items Details* tab, click **Assign**
5) Click **Apply**



A copy of the CO will be created in your **Newstuff**-folder under the new session settings. Thus, you don‘t need to do all the CO creation work again.

Just remember to close the old CO!

(Send CO to workflow and let the PM select “Unable to complete” at the SDT Review-task.)

Exercise

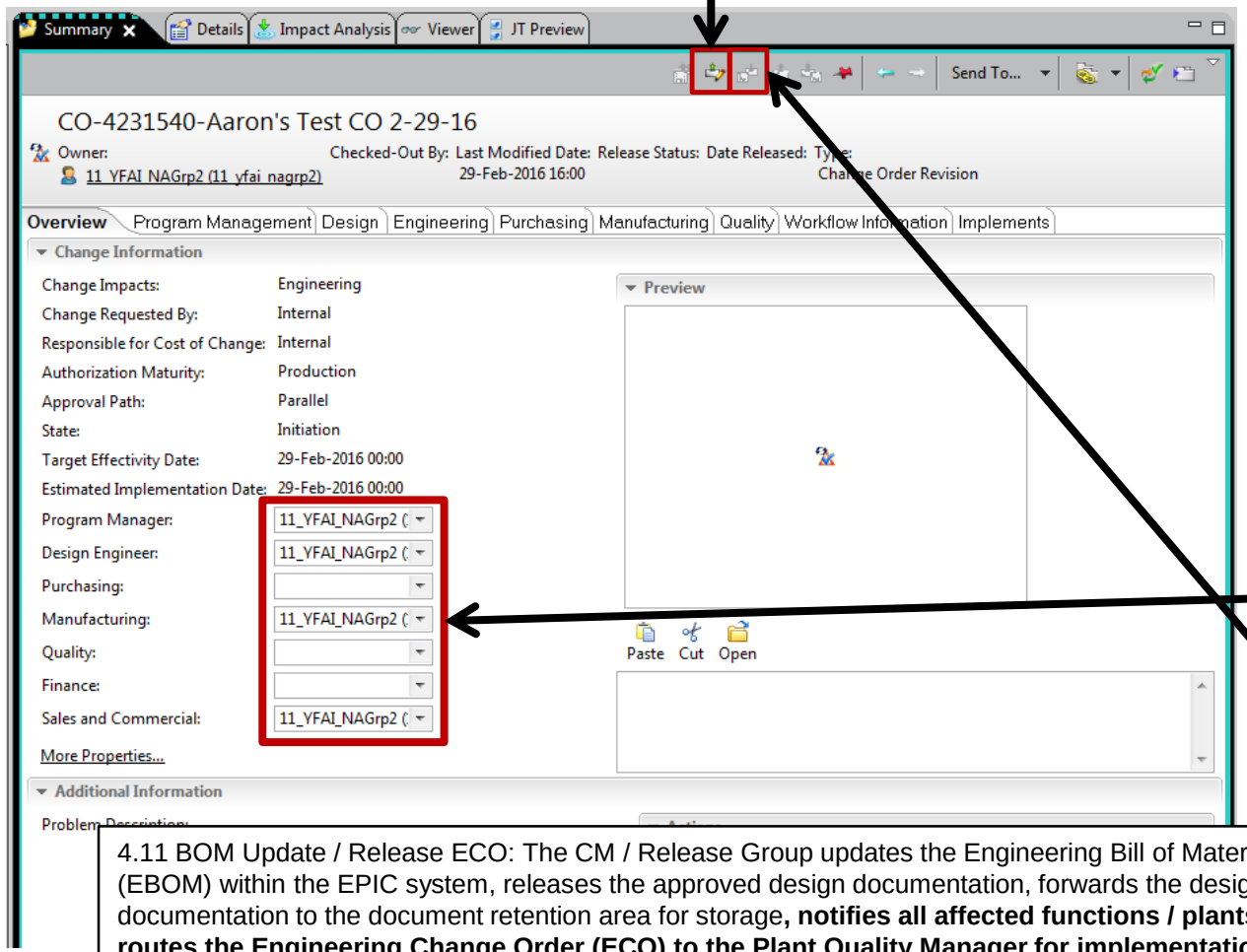
Create a CO and drag drop in your CR‘s.

Check which folders have been auto populated.

Change Order (CO)

Work on a CO Workflow

Workflow Process (CO) – CO Preparation for Part Release



Select personnel who will be signing off on the CO.

Select the CO Item Revision. Look in the summary tab.

1. Check out the CO Item Revision

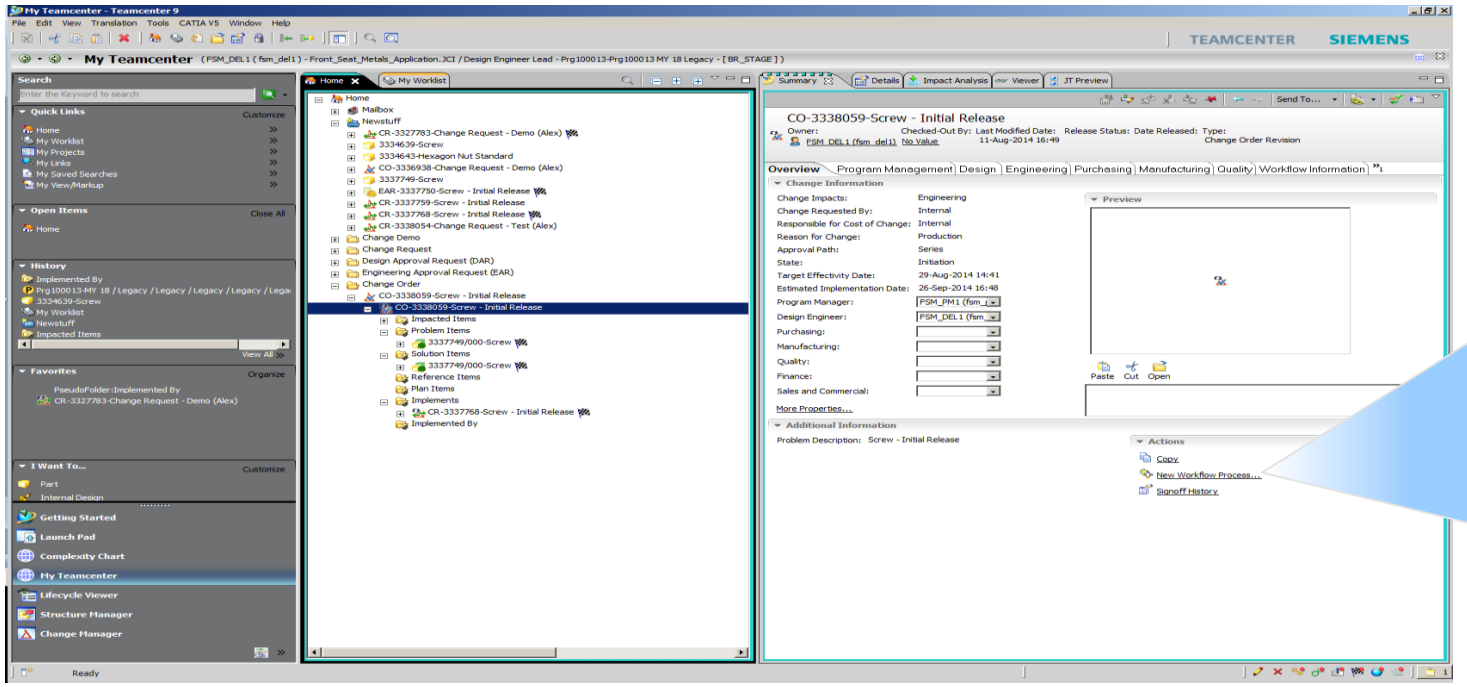
2. Select the appropriate personnel who should be alerted to the change. This will be auto populated by the **first** CR to be derived from or placed in the CO‘s **Implements** folder. **For program at the Plant, chose the QE and ME from the Plant to be notified.**

3. Don‘t forget to save and check-in.

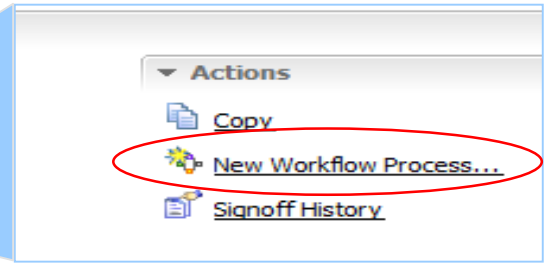
4.11 BOM Update / Release ECO: The CM / Release Group updates the Engineering Bill of Material (EBOM) within the EPIC system, releases the approved design documentation, forwards the design documentation to the document retention area for storage**, notifies all affected functions / plants and routes the Engineering Change Order (ECO) to the Plant Quality Manager for implementation verification.** Release and distribution shall be subject to local roles and responsibilities for each program.

4.12 Build / Production Impact: The Plant Release Coordinator of each affected plant obtains and distributes the released ECO documentation within the plant to all functions / departments affected by the change.

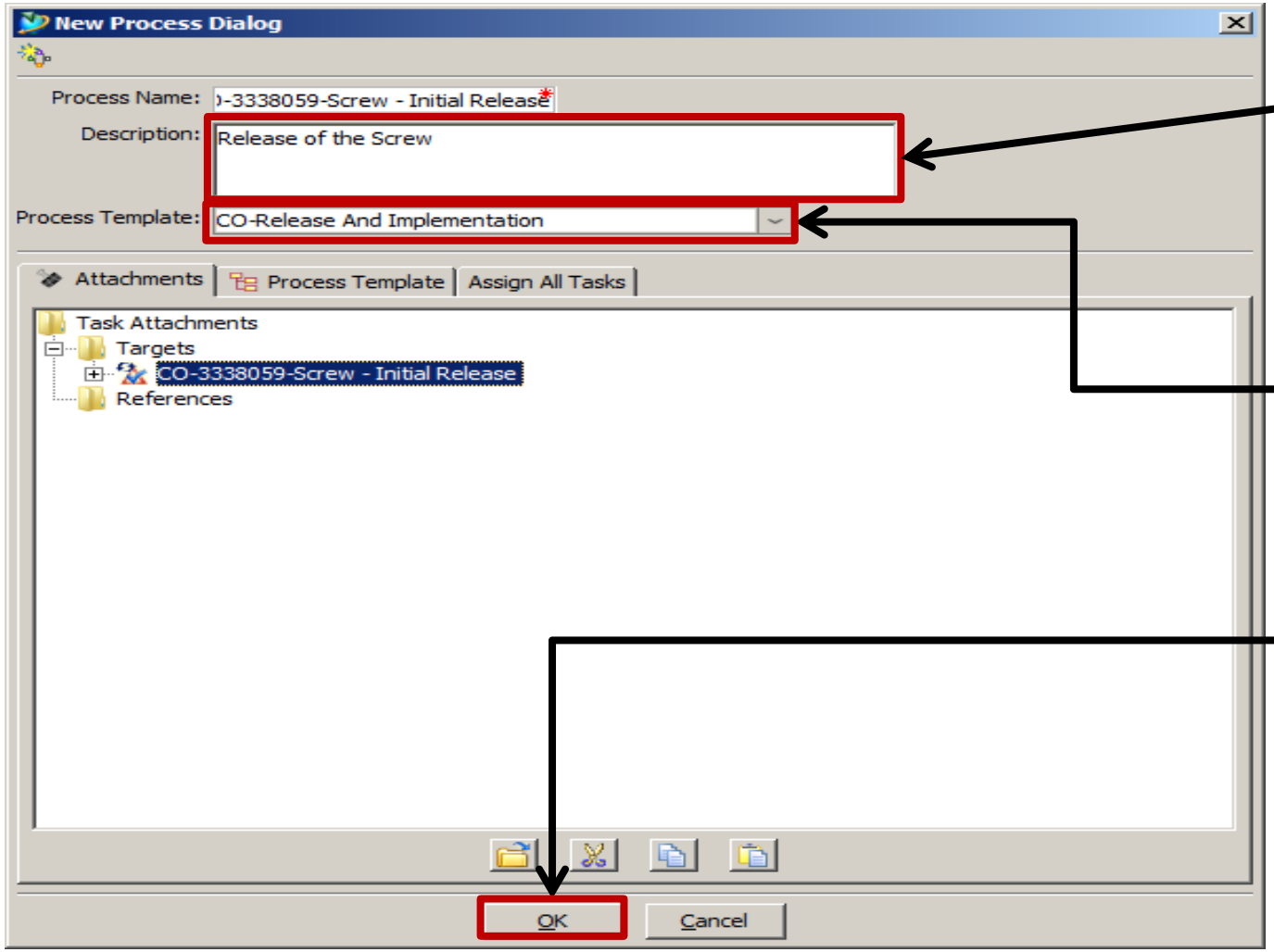
Workflow Process (CO) – CO Preparation for Part Release (cont'd.)



Now, in the **Summary** tab, the **New Workflow Process...**



Workflow Process (CO) – CO Preperation for Part Release (cont'd.)

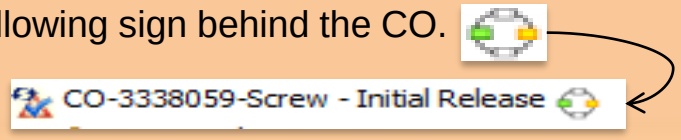


1. New Process Dialog window will be opened and you can write some details to the **Description** field

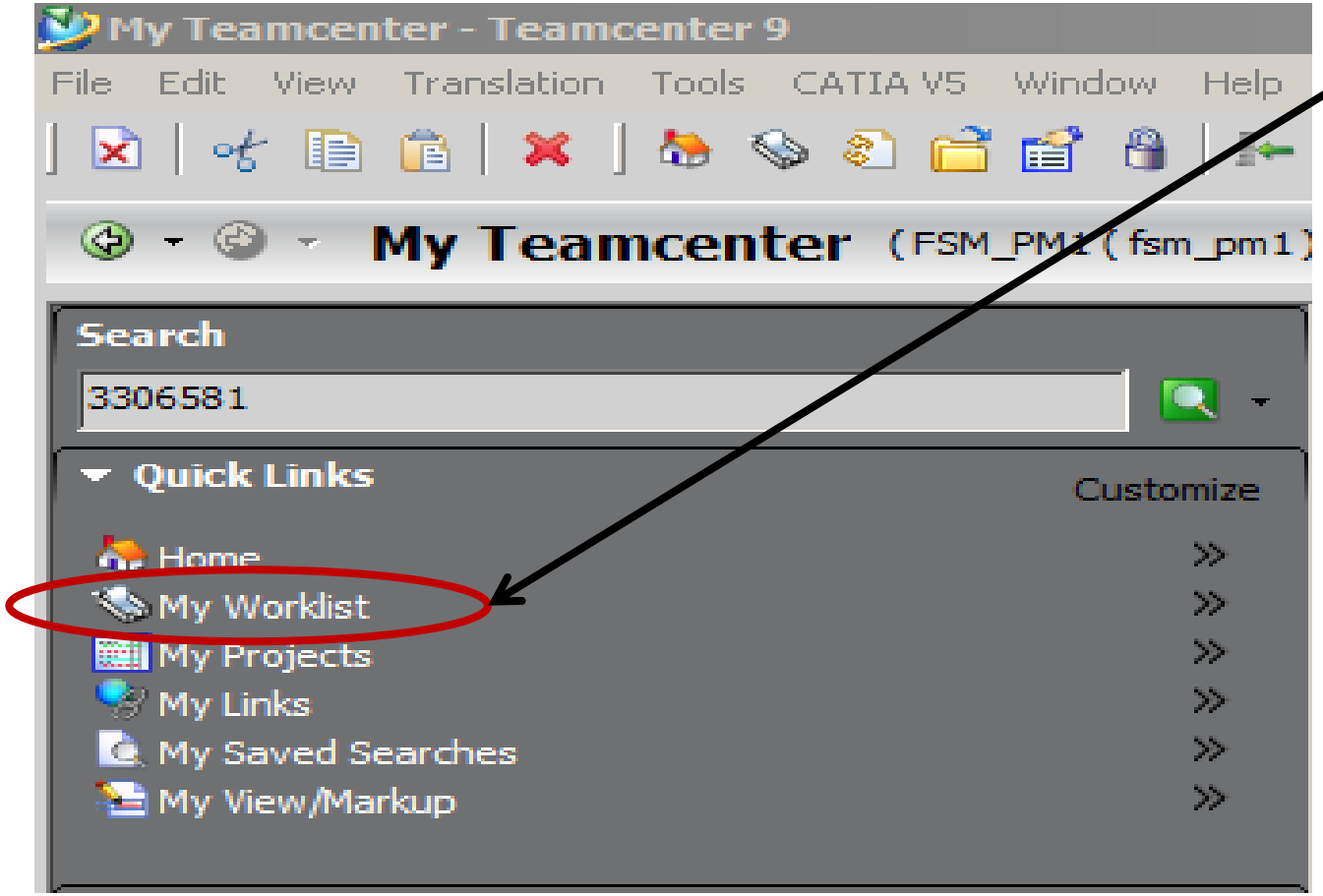
2. The Process Template has in this case a default setting CO-Release And Implementation; **Background** option will let the process run in the background of Teamcenter

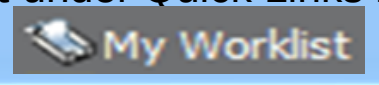
3. To start the route you left mouse button click on OK

When the CO Workflow is started you will find following sign behind the CO.



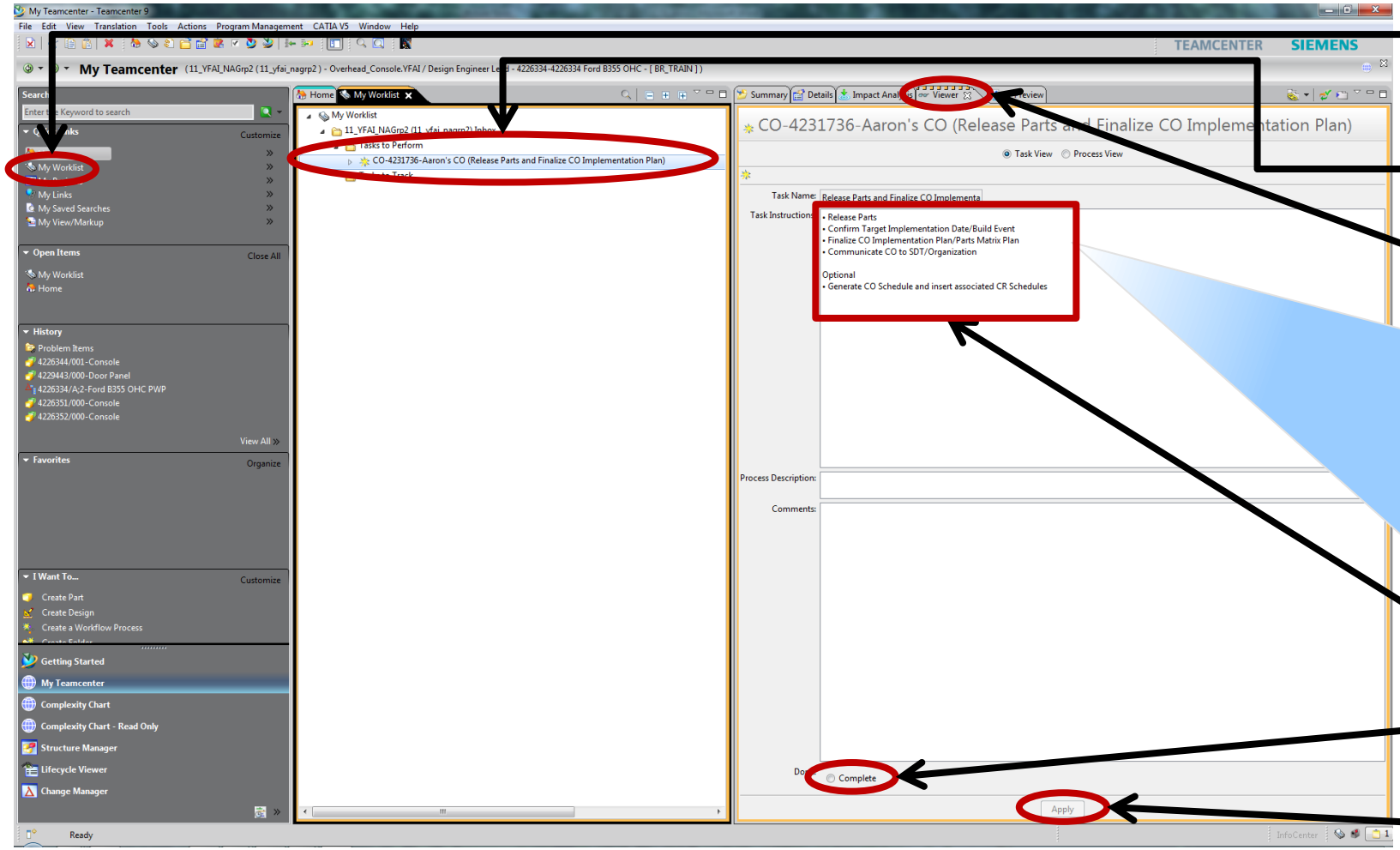
Workflow Process (CO) – Object (Part) Release [PM]

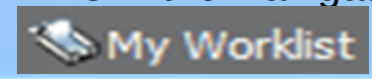


Click on **My Worklist** under Quick Links in the Navigation Pane. 

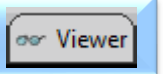
PM worklist

Workflow Process (CO) – Object (Part) Release [PM] (cont'd.)



1. Click on **My Worklist** under Quick Links in the Navigation Pane. 

2. Select the CO to be released

3. Select the **Viewer** tab 

- Release Parts
- Confirm Target Implementation Date/Build Event
- Finalize CO Implementation Plan/Parts Matrix Plan
- Communicate CO to SDT/Organization

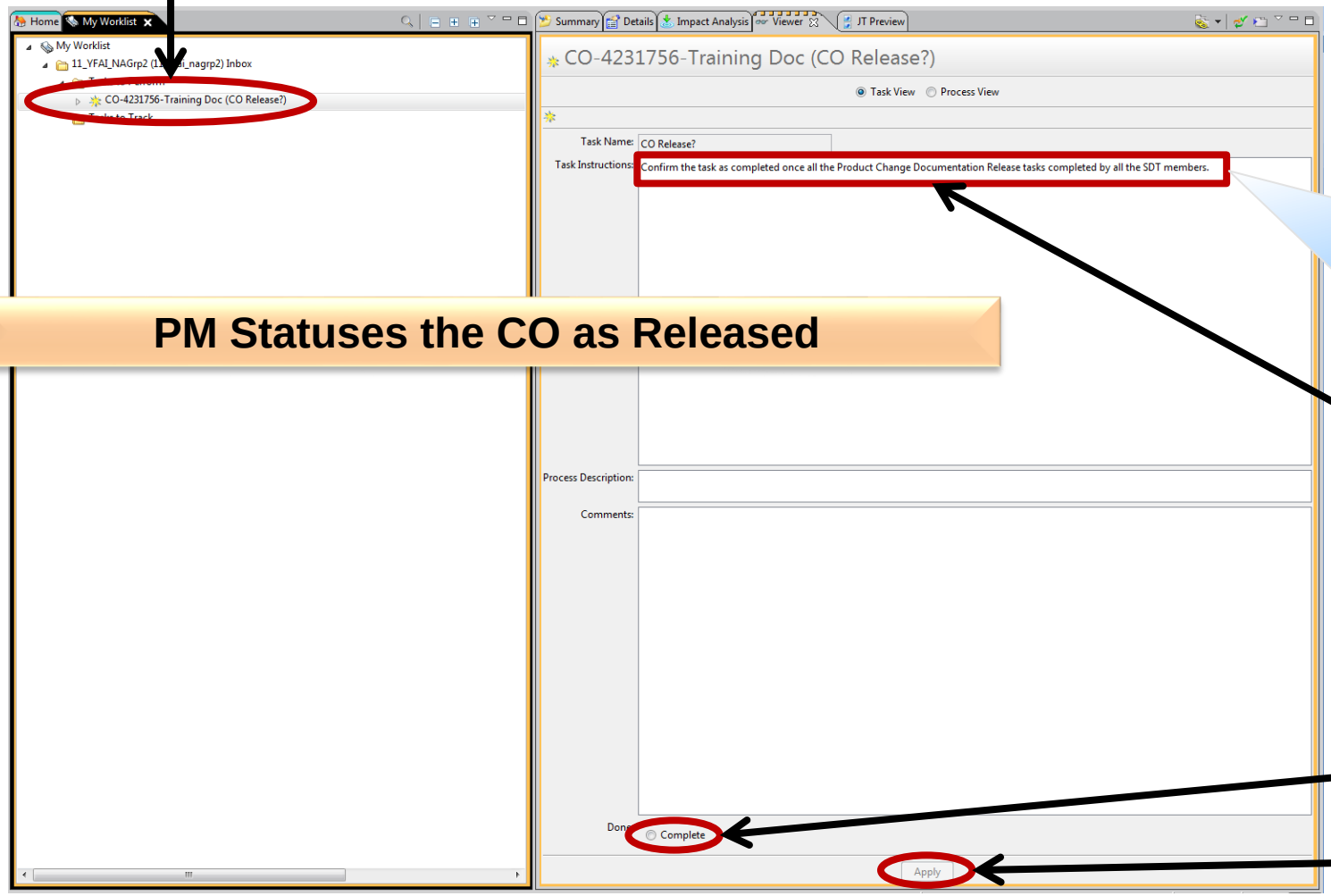
Optional
- Generate CO Schedule and insert associated CR Schedules

4. Note the task instructions

5. Select **Complete**

6. Click **Apply**

Workflow Process (CO) – Object (Part) Release [PM] (cont'd.)



1. Select the CO in **My Worklist**

Confirm the task as completed once all the Product Change Documentation Release tasks completed by all the SDT members.

2. Note the task instructions

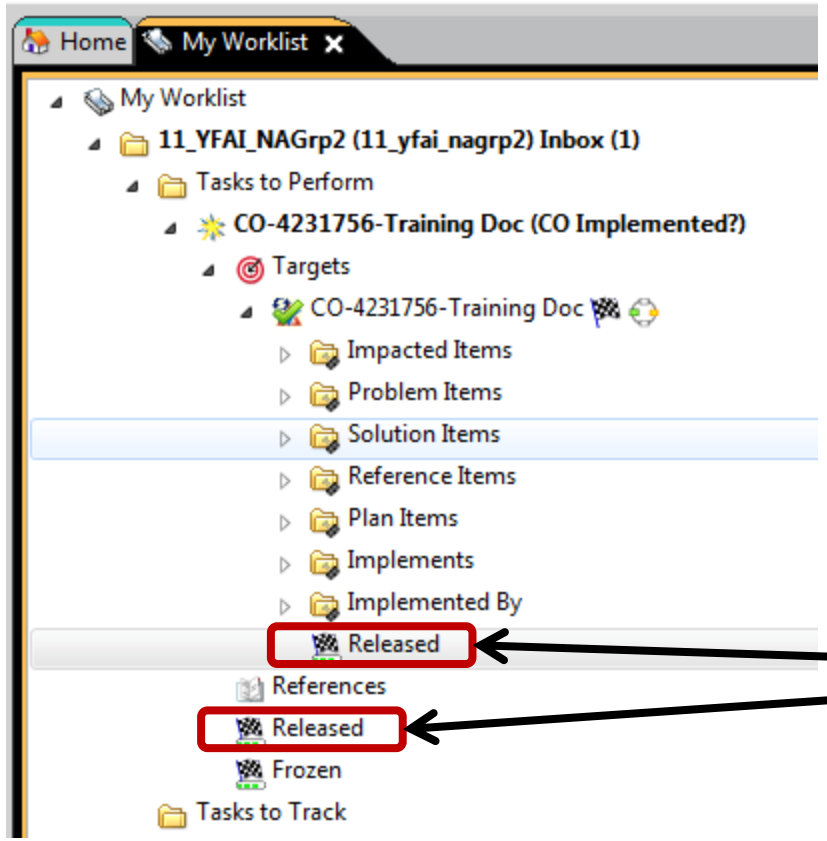
PM Statuses the CO as Released

5. Select **Complete**

6. Click **Apply**

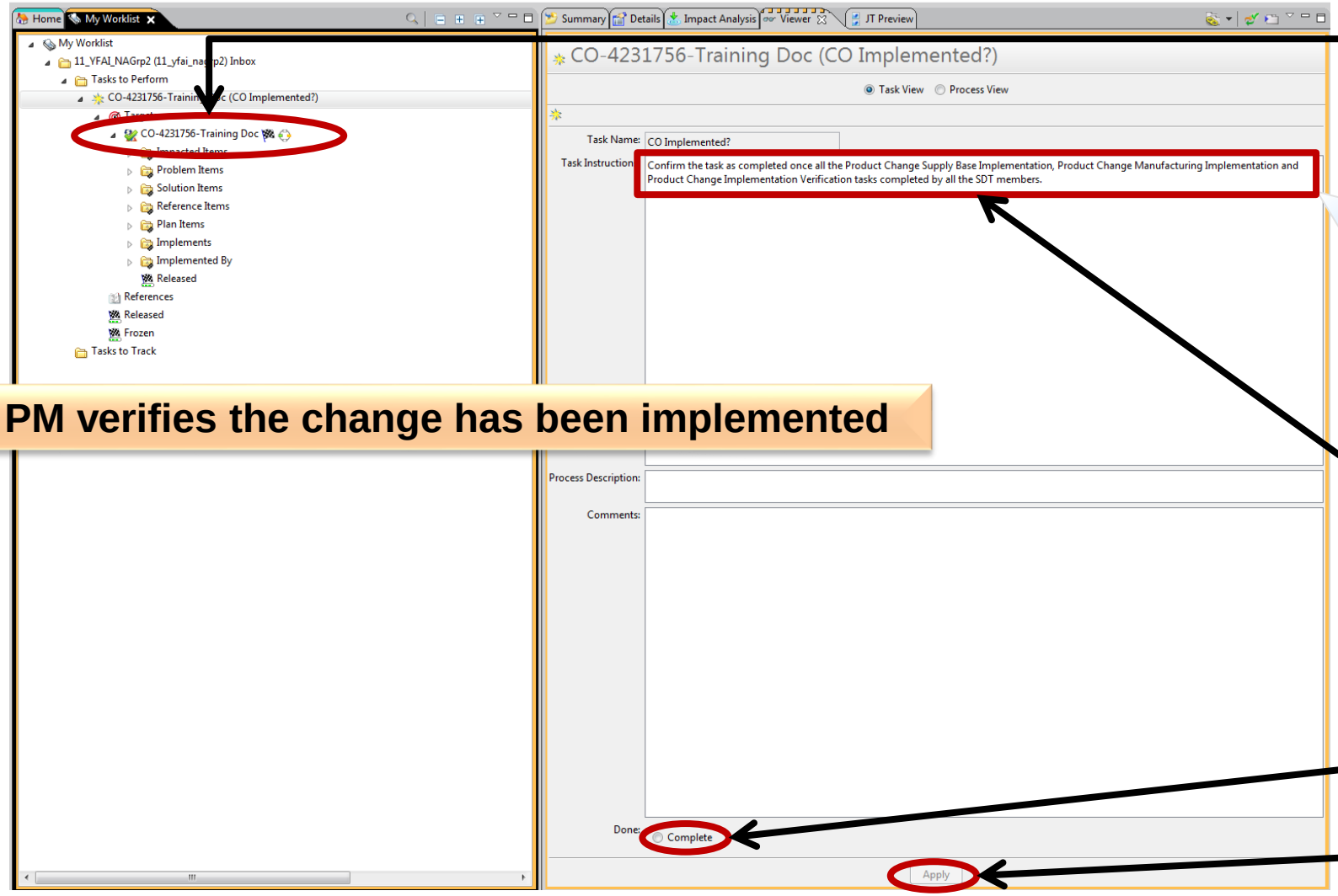
4.13 Formalize Part Scheduling / Ordering Plan: The Program Manager updates the Parts Matrix for pre-production changes. The Materials Manager updates the manufacturing bill of material (MBOM) and schedules the required bank of parts and coordinates modification/release of tooling affected by the change for production changes. Refer to the Inventory Planning work instruction and Material Planning and Management procedure.

CO Release



22.) The CO is now released and gets the Released Flag. Released

Implementation of the CO [PM]



PM verifies the change has been implemented

1. Select the CO in **My Worklist**

Confirm the task as completed once all the Product Change Supply Base Implementation, Product Change Manufacturing Implementation and Product Change Implementation Verification tasks completed by all the SDT members.

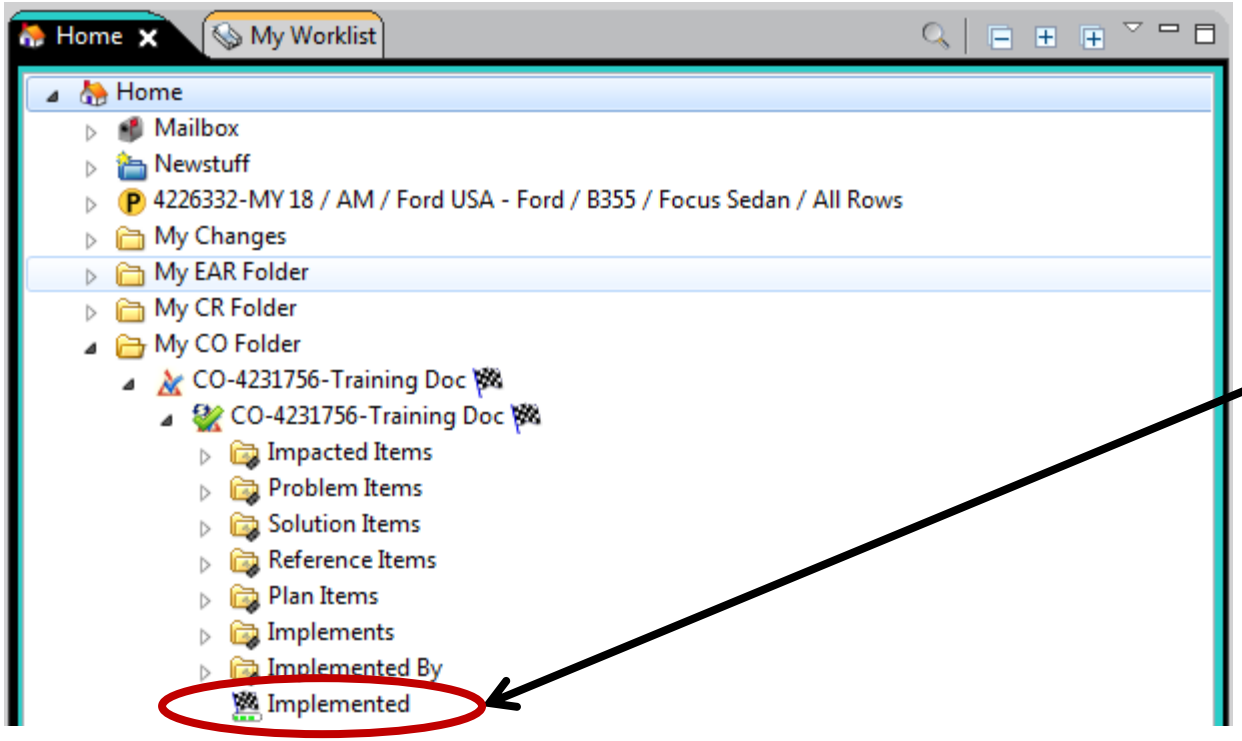
2. Note the task instructions

5. Select **Complete**

6. Click **Apply**

4.18 Verify Product Change Implementation: The Program Manager ensures the receipt of final cost data, release of final drawings and confirmation of manufacturing implementation (as applicable) to verify implementation of the product change.

Implementation of the CO [PM]



The CO get the **Released** flag removed and gets the Implemented flag. The CO is now implemented.

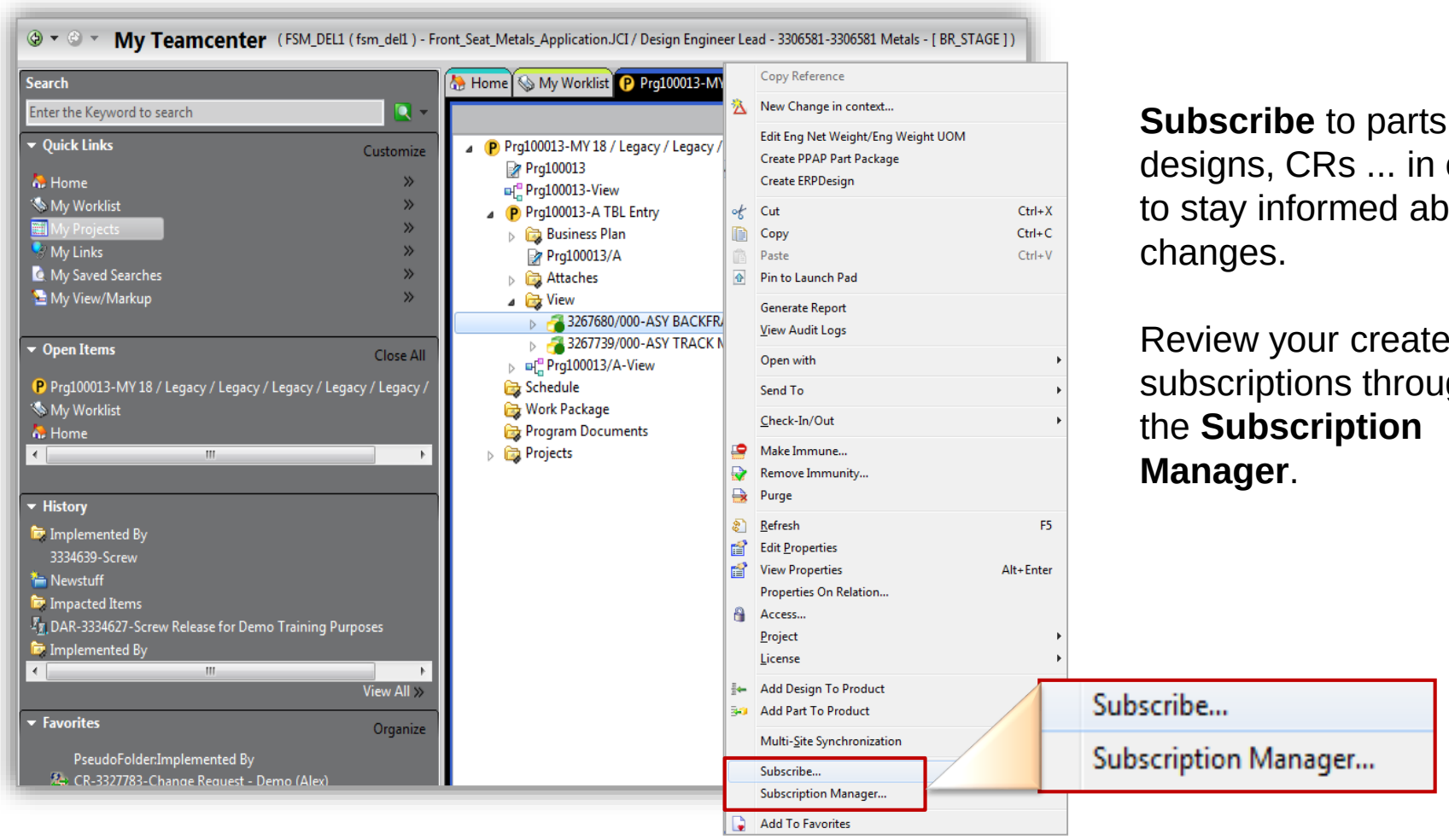
Exercise

Release and implement the CO:

1) **Release your CO**

2) **Implement your CO**

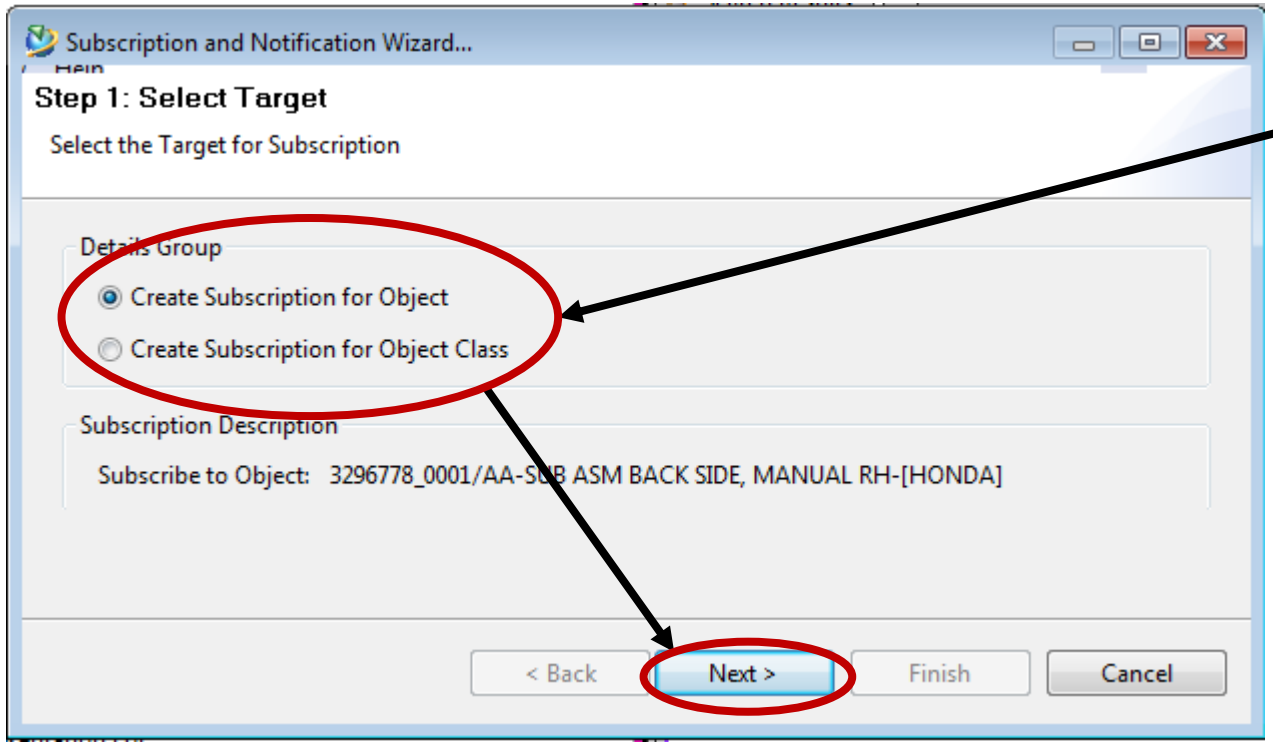
Tip: Subscribe to Assign Status on a CR



Subscribe to parts, designs, CRs ... in order to stay informed about changes.

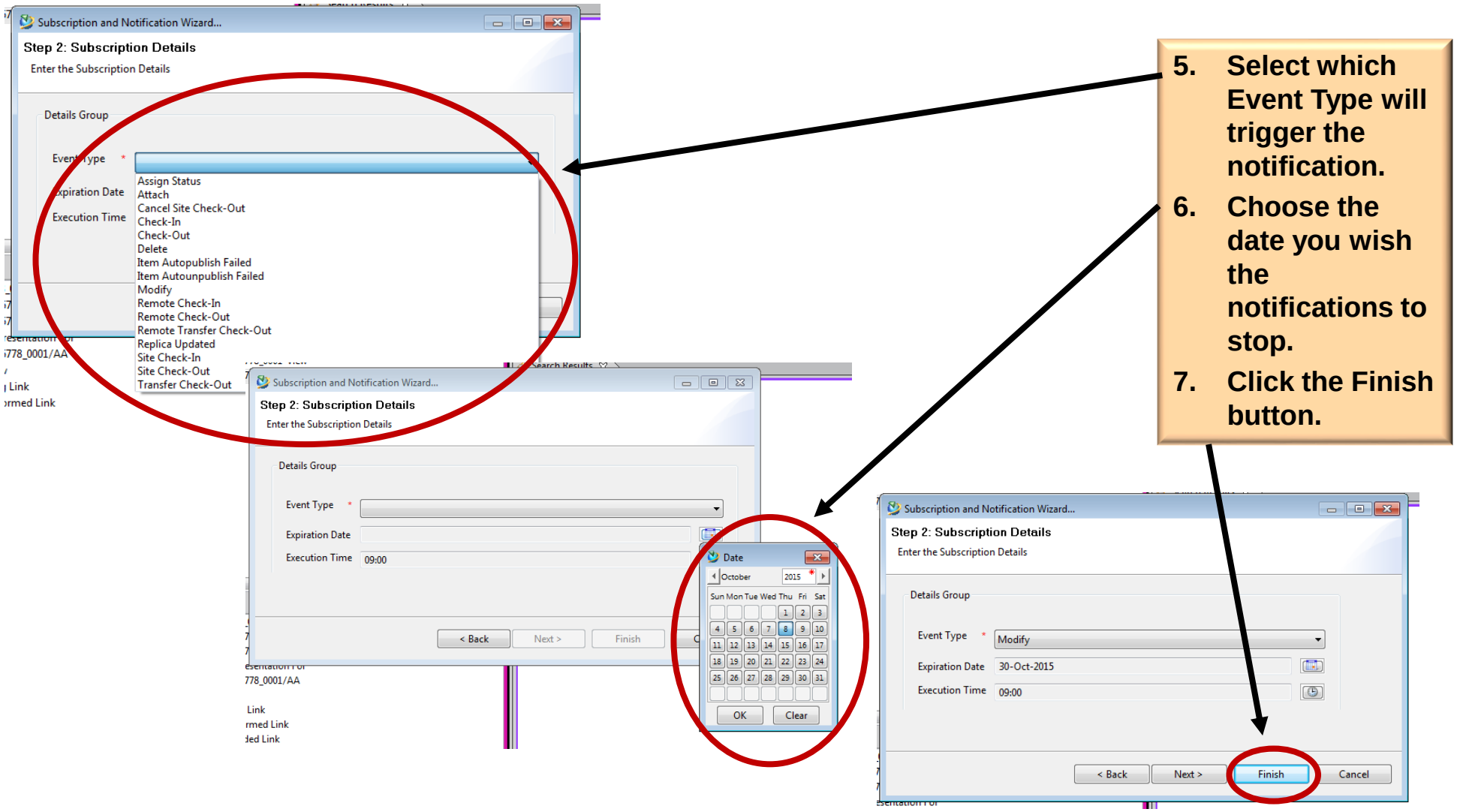
Review your created subscriptions through the **Subscription Manager**.

Subscribe to PLM Objects (cont'd.)



3. **Determine if you want the Object or Object Class and click on one.**
4. **Click on the Next button.**

Subscribe to PLM Objects (cont'd.)



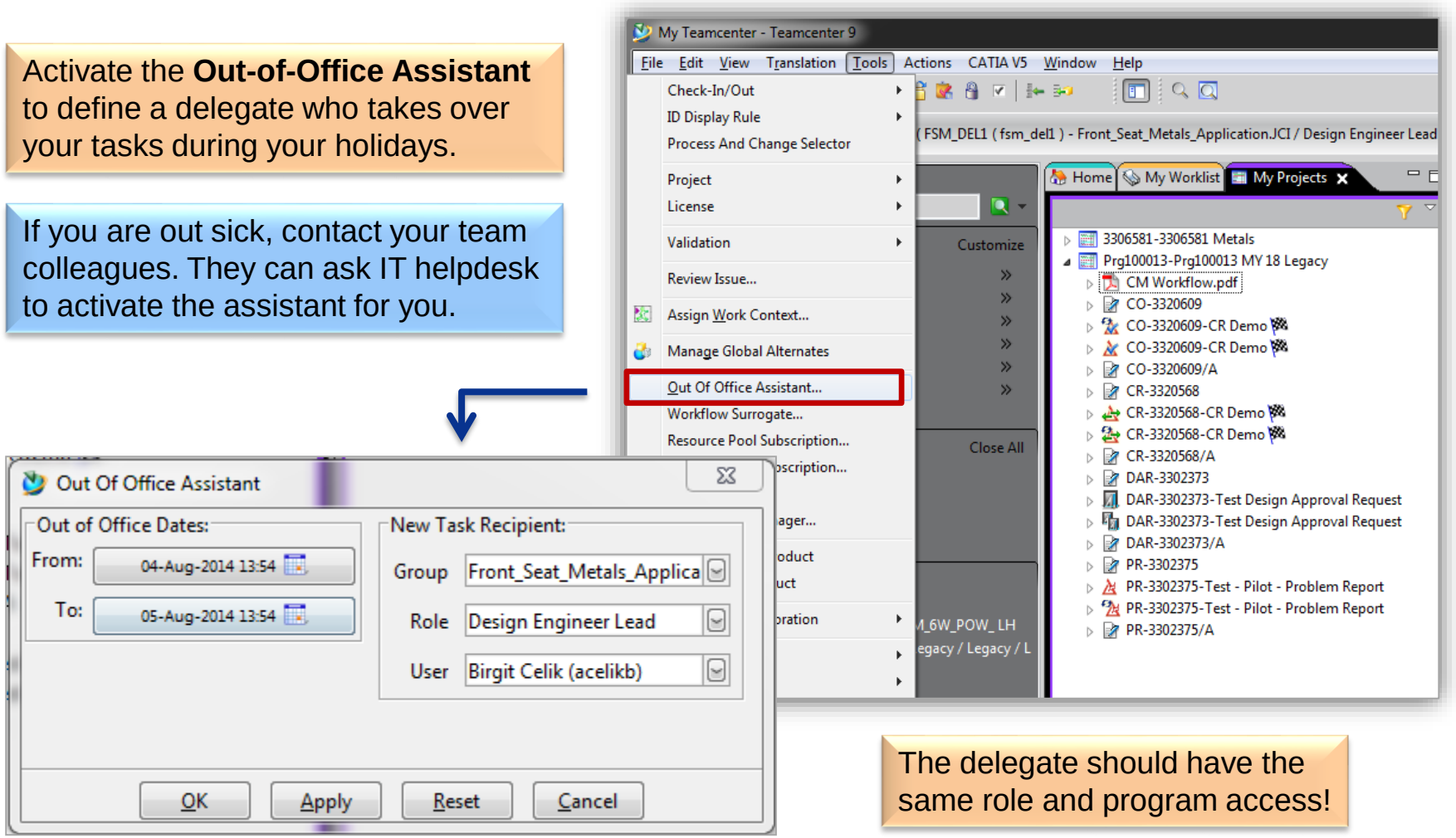
5. **Select which Event Type will trigger the notification.**
6. **Choose the date you wish the notifications to stop.**
7. **Click the Finish button.**

You will receive email notifications when an action occurs on your object.

Tip: Out-of-Office Assistant

Activate the **Out-of-Office Assistant** to define a delegate who takes over your tasks during your holidays.

If you are out sick, contact your team colleagues. They can ask IT helpdesk to activate the assistant for you.

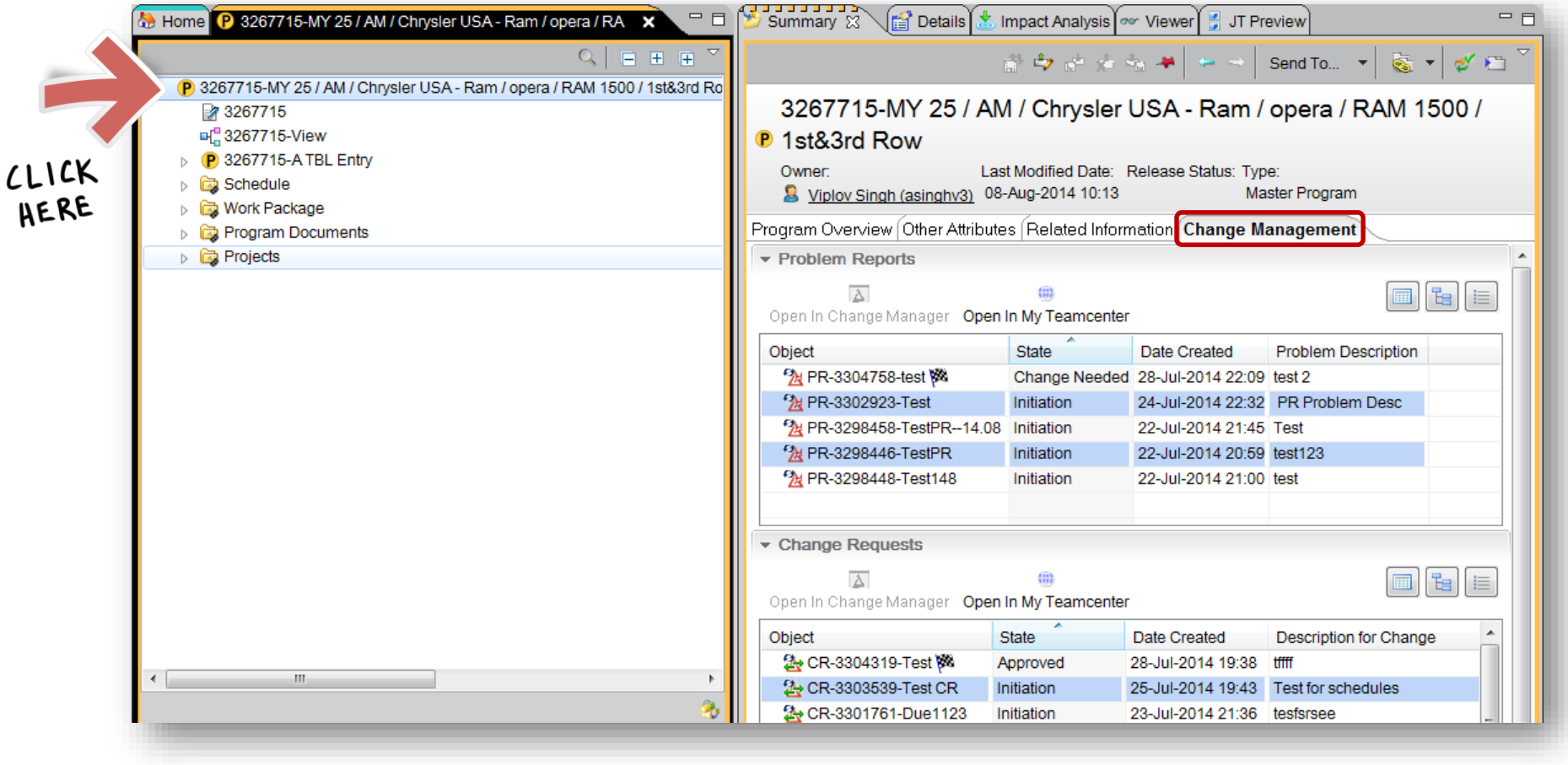


The delegate should have the same role and program access!

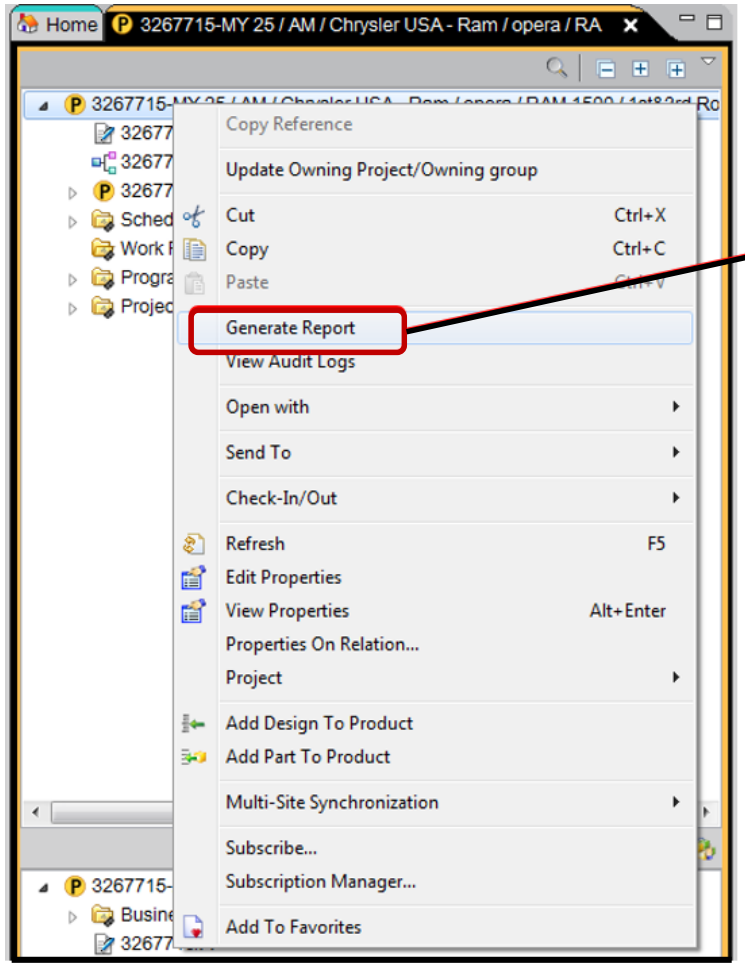
Change Order (CO)

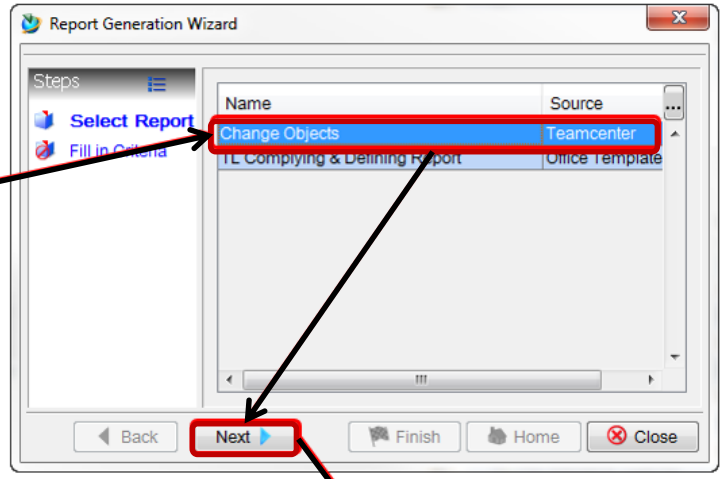
Change Orders by Program

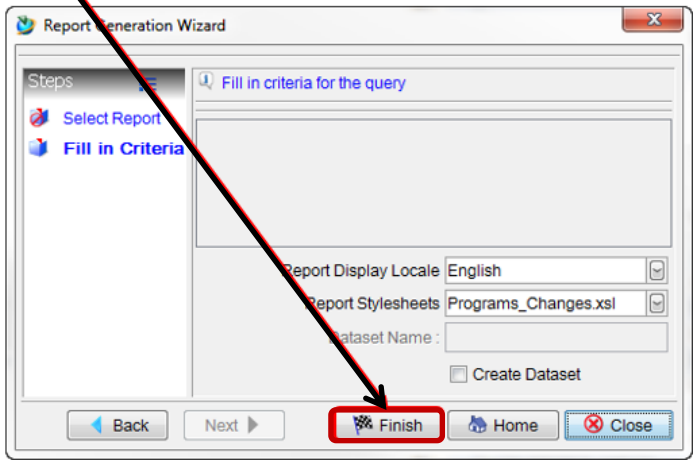
Changes by Program



Changes by Program - Report







1. Select the Program Item Master, right-click, and choose Generate Report.
2. Select the Report if available and click the Next button.
3. If available, fill in criteria for the query and click the Finish button.

Change Order (CO)

References

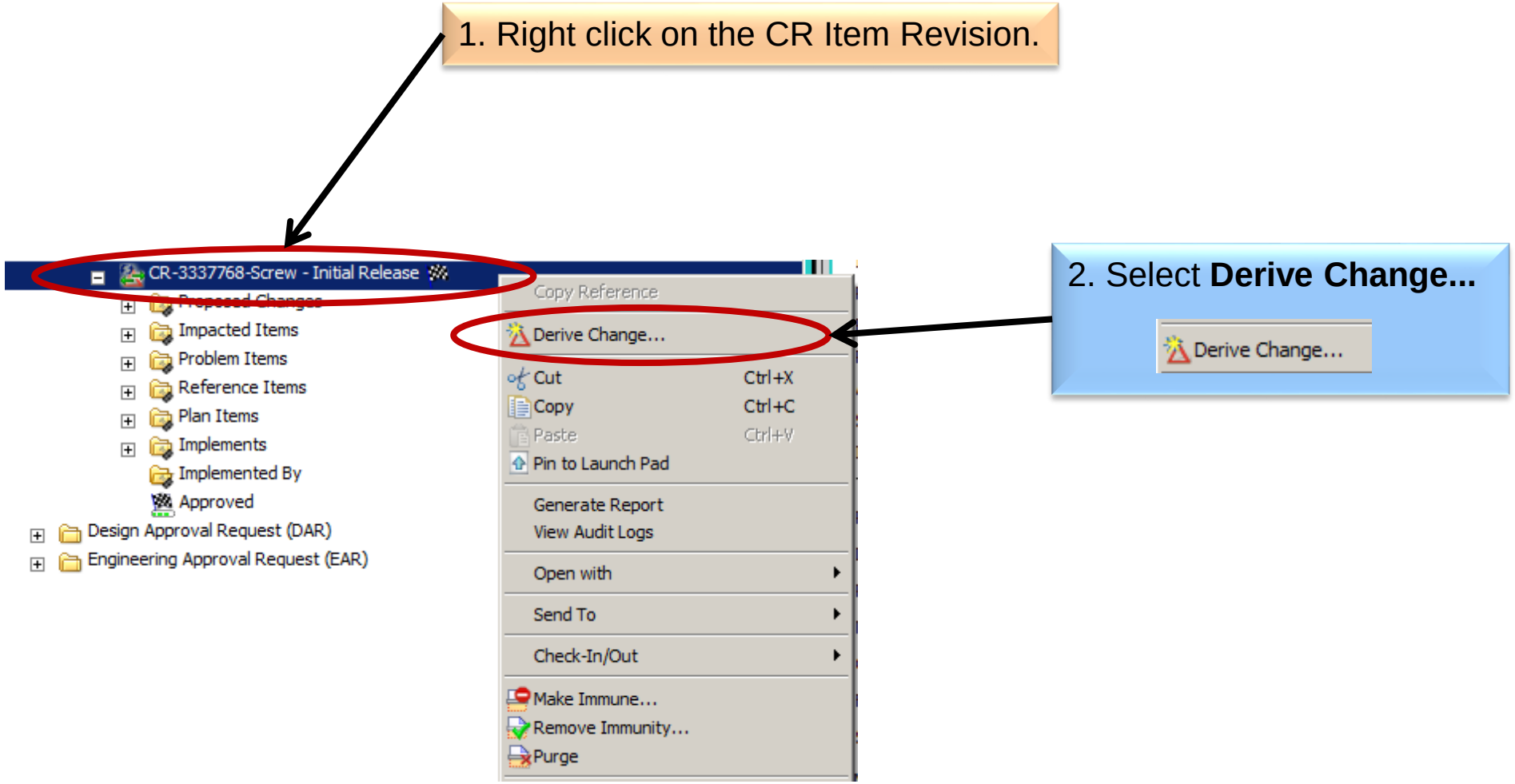
Abbreviations

PM	Program Manager
DE	Design Engineer
DEL	Design Engineer Lead
CR	Change Request
CO	Change Order
SDT	Simultaneous Development Team (your program team)
SAM	Select Approval Method
TC	Teamcenter
BOM	Bill of Material
PLM	Product Lifecycle Management
DA	Deviation Authorization
DAR	Design Approval Request
EAR	Engineering Approval Request

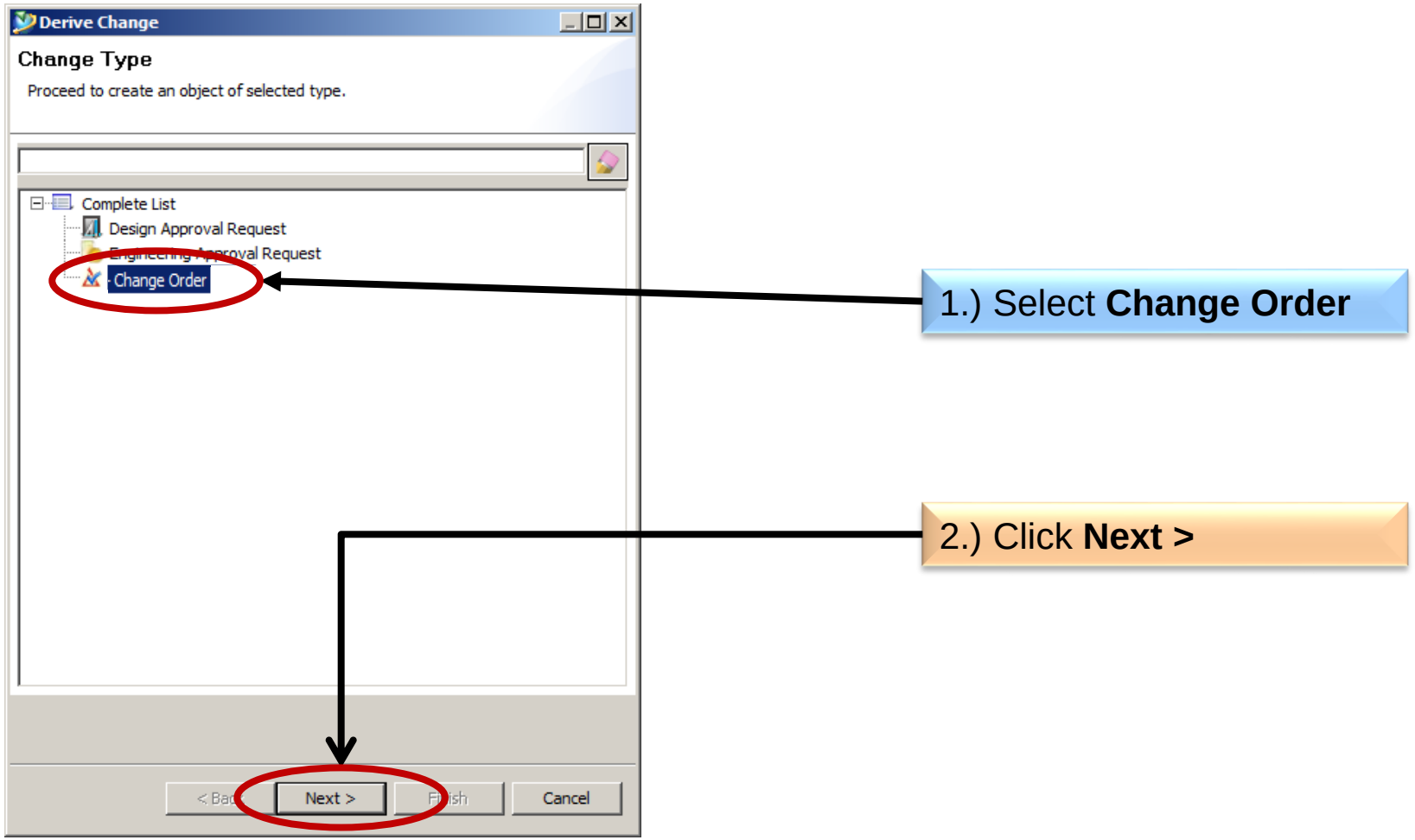
Change Order (CO)

Other Ways to Create a CO

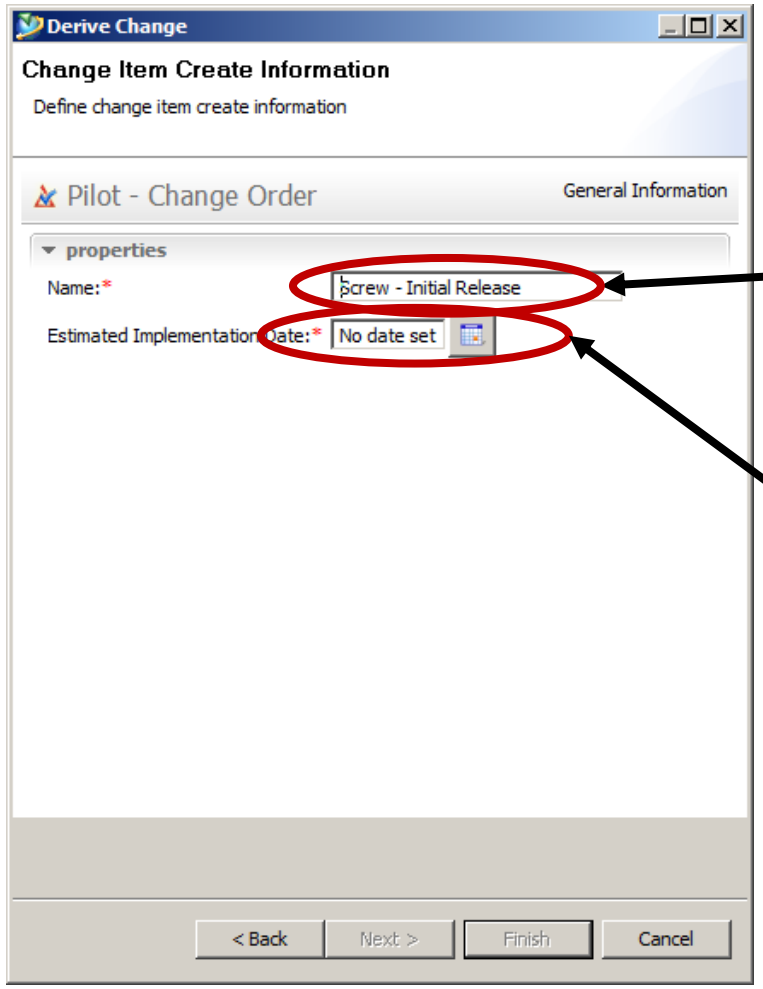
Create CO out of the CR



Create CO out of the CR (cont'd.)



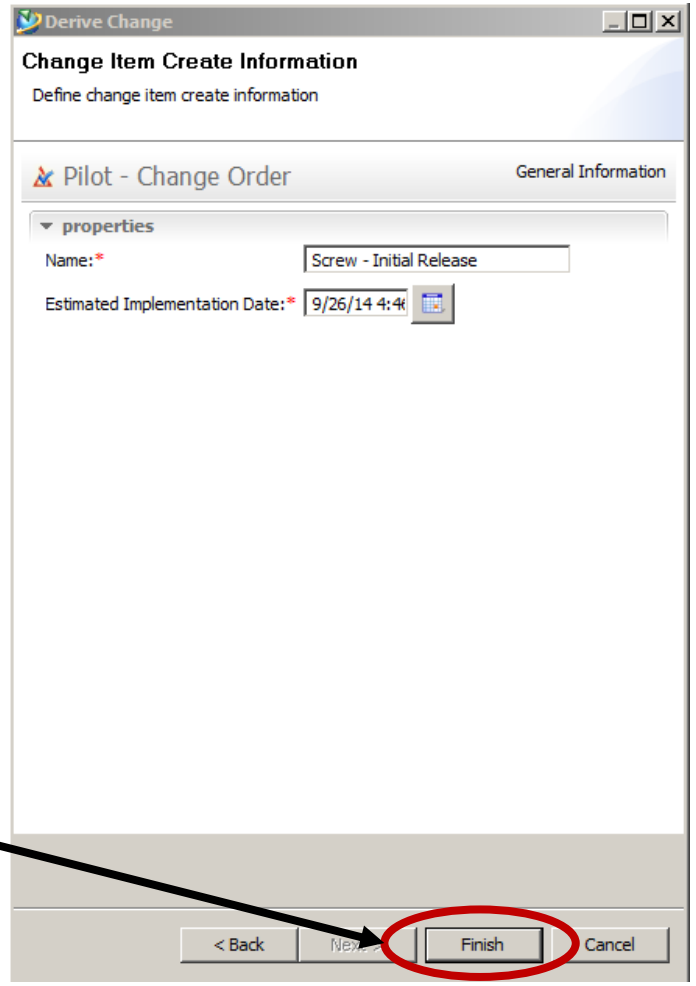
Create CO out of the CR (cont'd.)



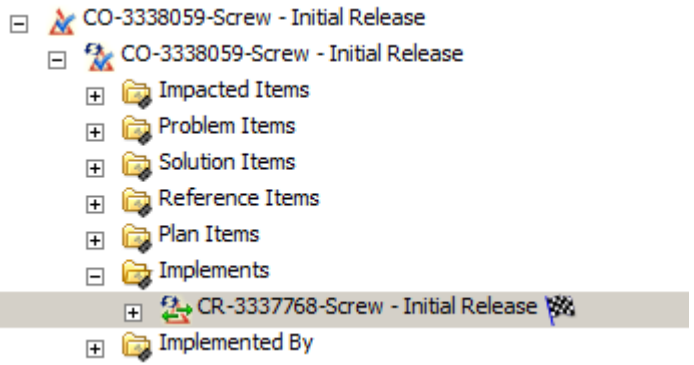
1. The CR **Name** will auto populate. Change or add additional discription here.

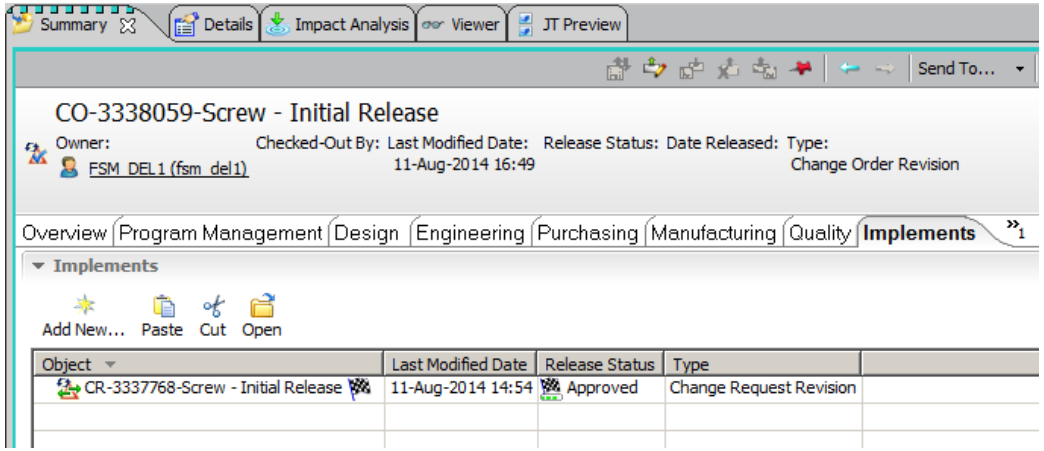
2. To set the **Estimated Implementation Date** click on the calendar icon.

3. Click on Finish



Create a CO – Where to find the CR link?





The system provides you the CO Number and the Name description.

CO-3338059-Screw - Initial Release

Syntax:

CO-7 digit number-Name Description

You will find the linked CRs in the

1. In the folder under the CO called **Implements**
2. In the **Summary** tab of the CO