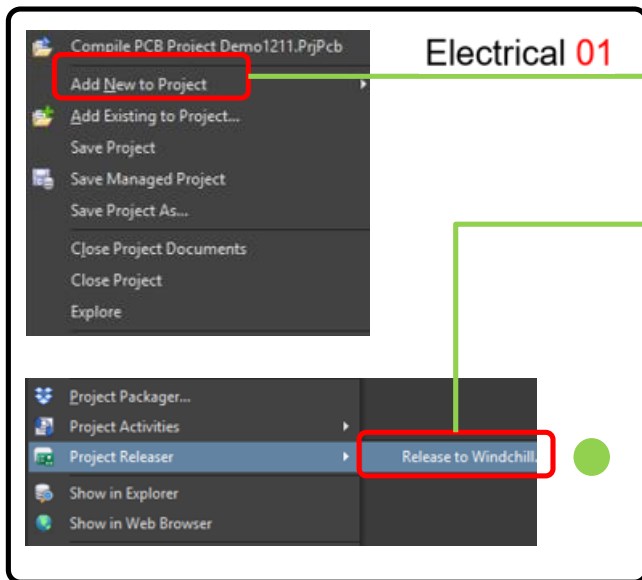


Altium
Application



Create New Project In Altium

1



Electrical 01

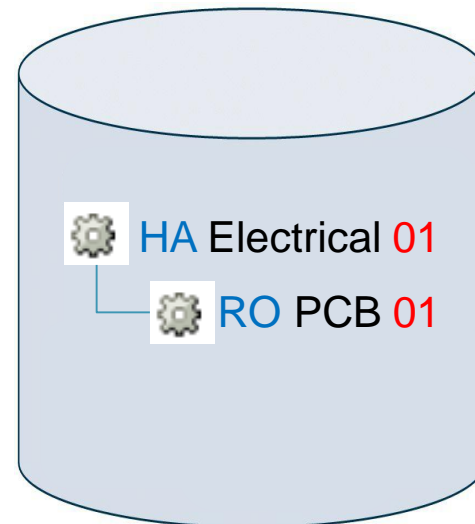
Electrical 01

Publish to PLM

Release to Windchill

2

PTC Windchill
Server



HA Electrical 01

RO PCB 01

Altium Application



Complete Design In Altium

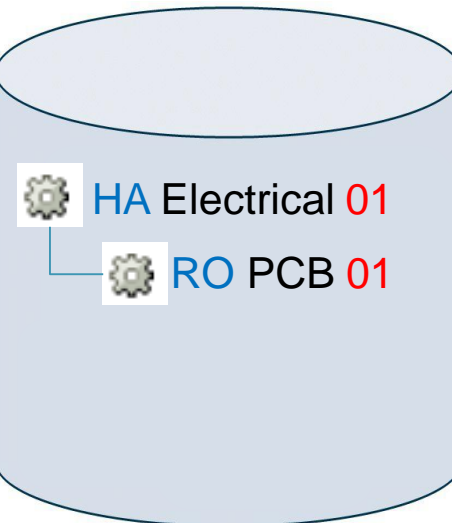
3

PTC Windchill Server



Electrical 01	PCB.Asm – DEMO, Roberto	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2
Variant	PCB.Asm – DEMO, Roberto, Variant 1	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	5
	RO00011895, CAP, 4.7uF, 10%, X7R	10
	RO00302565, IC, TI1234	1
Variant	PCB.Asm – DEMO, Roberto, Variant 2	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00044285, RES, 15k, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2

Create Variants in Altium

4


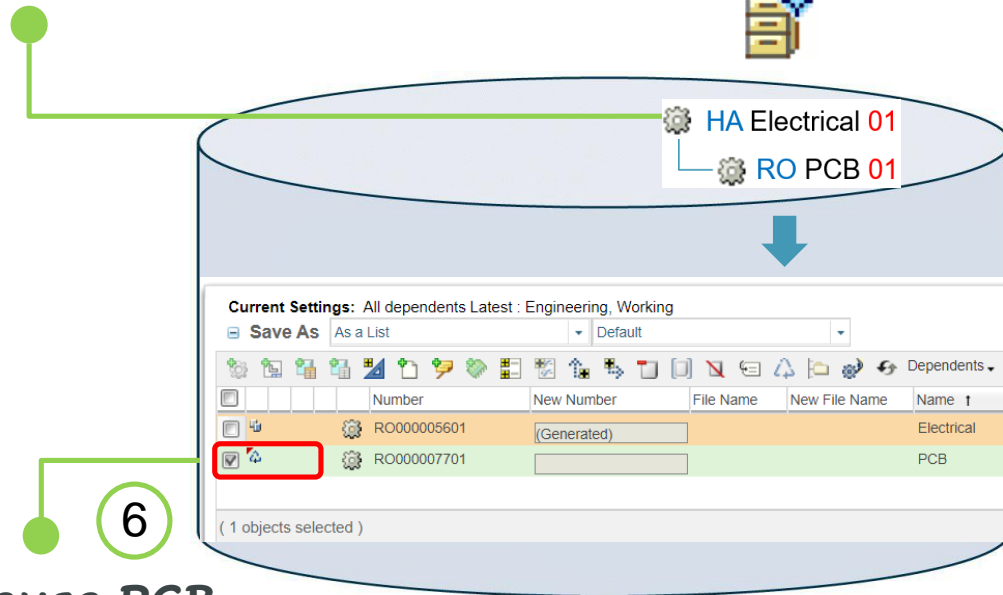
Altium Application



Electrical 01	PCB.Asm – DEMO, Roberto	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2
Variant 1	PCB.Asm – DEMO, Roberto, Variant 1	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	5
	RO00011895, CAP, 4.7uF, 10%, X7R	10
	RO00302565, IC, TI1234	1
Variant 2	PCB.Asm – DEMO, Roberto, Variant 2	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00044285, RES, 15k, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2

“Save As” The PCB Assembly in Windchill 5

PTC Windchill Server



Reuse PCB 6

Altium
Application



Save As The PCB
Assembly for
every Variant
Created

7

PTC Windchill
Server



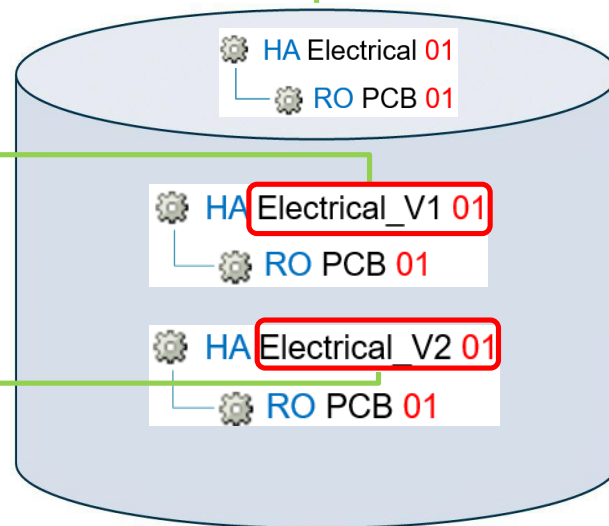
Electrical_01	PCB.Asm – DEMO, Roberto	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2
Electrical_V1	PCB.Asm – DEMO, Roberto, Variant 1	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00011285, RES, 10K, 5%	5
	RO00011895, CAP, 4.7uF, 10%, X7R	10
	RO00302565, IC, TI1234	1
Electrical_V2	PCB.Asm – DEMO, Roberto, Variant 2	1
	RO00038956, PCB – DEMO, Roberto	1
	RO00044285, RES, 15k, 5%	10
	RO00011895, CAP, 4.7uF, 10%, X7R	15
	RO00302565, IC, TI1234	2

Electrical_V1

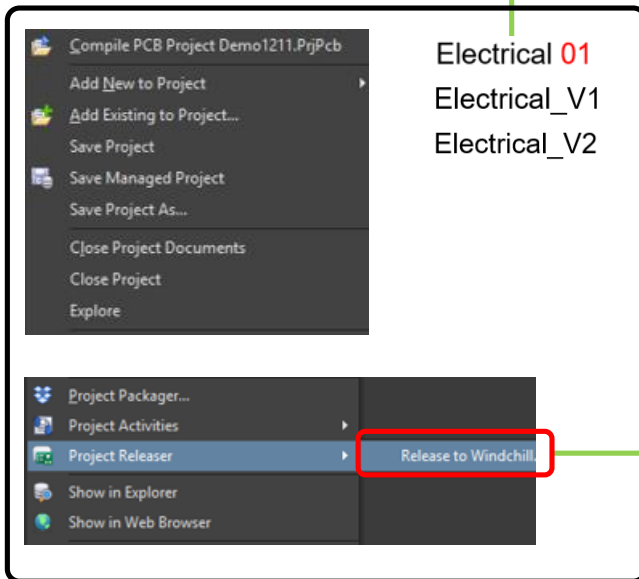
Electrical_V2

Type new Part
Numbers generated
from WC into Altium

8



Altium Application

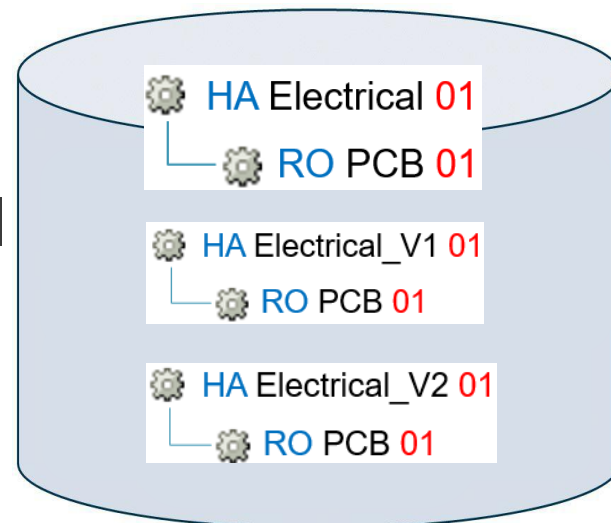


9 Complete the Design and Release to Windchill

Publish to PLM

REST API Builds all three structures

PTC Windchill Server



10

Validate the ECAD Design in Windchill

Identity
RO00010301, Electrical_YNI_PCB.Asm, 01.1 (Engineering)
YNI_PCBA, A.1
RO00010401, Electrical_YNI_PCB, 01.1 (Engineering)
YNI_FAB, A.1
RO005011301, RES,0603,0 OHM,5%, 01.2 (Engineering)
RO005016701, RES,0603,100K,1%, 01.2 (Engineering)
RO005034501, RES,0805,4.7K,1%, 01.2 (Engineering)
RO005034901, RES,0603,5.11K,1%, 01.2 (Engineering)
RO005038801, RES,0603,4.7K,1%, 01.2 (Engineering)
RO005044101, RES,0402,0 OHM,5%, 01.2 (Engineering)
RO005044301, RES,0402,10K,5%, 01.2 (Engineering)
RO005050501, RES,0402,1K,1%, 01.2 (Engineering)
RO005053001, RES,0402,4.7K,5%, 01.2 (Engineering)
RO005080901, RES,0805,22K,1%, 01.2 (Engineering)
RO005086801, RES,0402,22 OHM,5%, 01.2 (Engineering)

(36 objects)

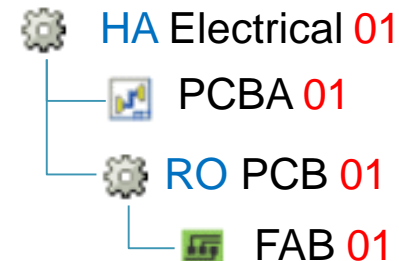
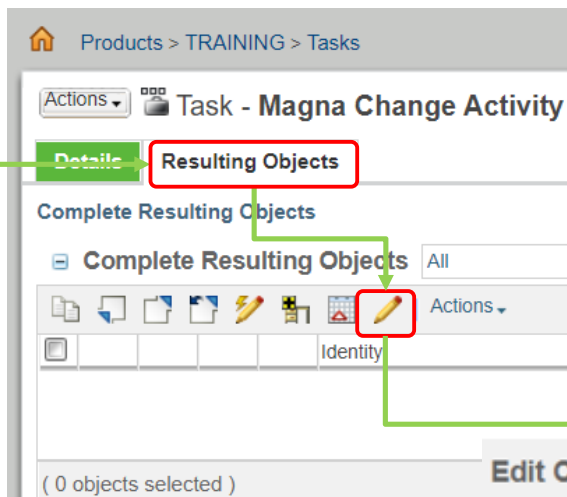
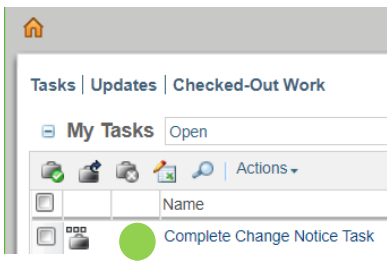
Identity
RO00010501, Electrical_YNI_Variant_PCB.Asm, 01.2 (Enginee
YNI_Variant_PCBA, A.1
RO00010401, Electrical_YNI_PCB, 01.1 (Engineering)
YNI_FAB, A.1
RO005011301, RES,0603,0 OHM,5%, 01.2 (Engineering)
RO005016701, RES,0603,100K,1%, 01.2 (Engineering)
RO005034501, RES,0805,4.7K,1%, 01.2 (Engineering)
RO005034901, RES,0603,5.11K,1%, 01.2 (Engineering)
RO005038801, RES,0603,4.7K,1%, 01.2 (Engineering)
RO005044101, RES,0402,0 OHM,5%, 01.2 (Engineering)
RO005044301, RES,0402,10K,5%, 01.2 (Engineering)
RO005050501, RES,0402,1K,1%, 01.2 (Engineering)
RO005053001, RES,0402,4.7K,5%, 01.2 (Engineering)
RO005080901, RES,0805,22K,1%, 01.2 (Engineering)
RO005086801, RES,0402,22 OHM,5%, 01.2 (Engineering)

(30 objects)

11

Add new Electrical components to Resulting Objects table of Change Task:

Electrical PCB Assembly



Edit Change Task

1 Set Attributes

2 Select Affected/Resulting Objects

12

Set Release Target to Production

Edit Change Task

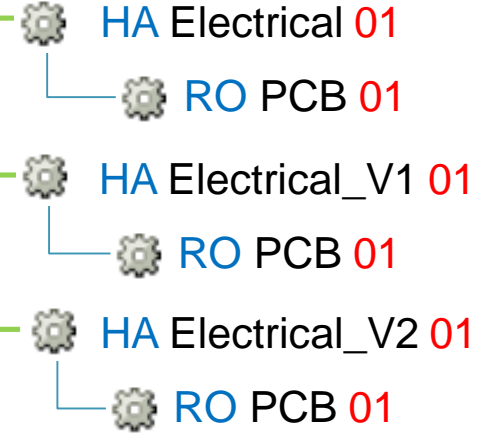
1 Set Attributes 2 Select Affected/Resulting Objects

Affected Objects: All

Number	Version	Name	On Order	Work-in-Process	Finished	Annotz
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Resulting Objects: All

Number	Version	Name	State	Release Target
		HA Electrical 01		Production
		HA Electrical_V1 01		Production
		HA Electrical_V2 01		Production




13

Complete Electrical CN Task

Tasks | Updates | Checked-Out Work

My Tasks

Actions

	Name
	Complete Change Notice Task

Task - Magna Change Activity Workflow_CT0000027-Complete Change Notice Task Implementation

Details **Resulting Objects**

Attributes | Subject Attributes | Task Completion

Role: Assignee
Deadline:
Priority: Highest
Status: Potential
Process: Magna Change Activity Workflow_CT0000027-Electrical PCB Assembly

Subject Attributes

Change Notice: Magna Change Notice - CN0000021
Change Notice Name: NewProductIntro
Name: Electrical PCB Assembly
Need Date:
Description: Update and release affected Electrical PCB Assembly and associated Schematic and Assembly Drawings. Confirm BOM structure for Electrical PCB Assembly is correctly configured. Review and confirm that the Resulting Objects list reflects the correct Part Numbers, Versions and States for each of the Affected Parts being released. If applicable, update all related ProjectLink Activities and deliverables.

Task Completion

Comments:

Save Complete Task

14

Add new Electrical components to Resulting Objects table of Change Task:

Tasks | Updates | Checked-Out Work

My Tasks Open

Complete Change Notice Task

Electrical PCB/Array

Products > TRAINING > Tasks

Task - Magna Change Activity

Resulting Objects

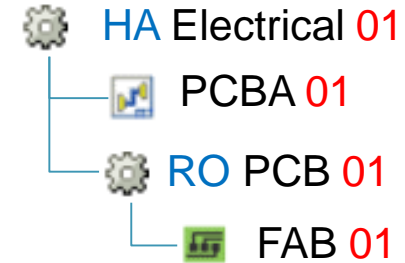
Complete Resulting Objects

Complete Resulting Objects All

Actions

Identity
(0 objects selected)

Edit Change Task



1 Set Attributes

2 Select Affected/Resulting Objects

15

Set Release Target to Production

Edit Change Task

1 Set Attributes 2 Select Affected/Resulting Objects

Affected Objects All

Number ↑	Version	Name	On Order	Work-in-Process	Finished	Annot
----------	---------	------	----------	-----------------	----------	-------

+ Add by Number Add by Name

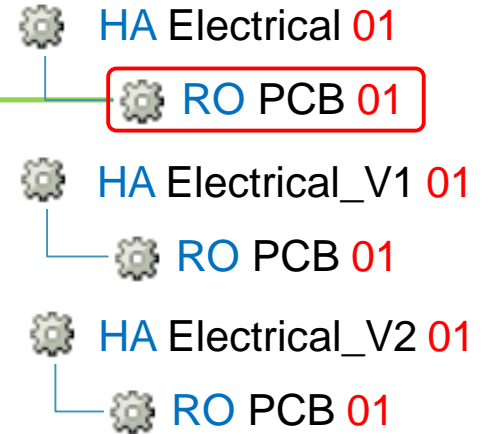
(0 objects selected)

Resulting Objects All

Number ↑	Version	Name	State	Release Target
----------	---------	------	-------	----------------

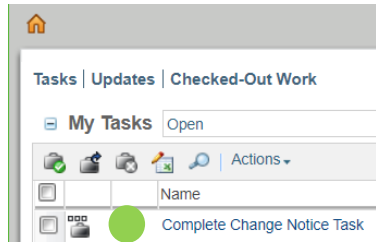
 RO PCB 01

Production



16

Complete Electrical CN Task

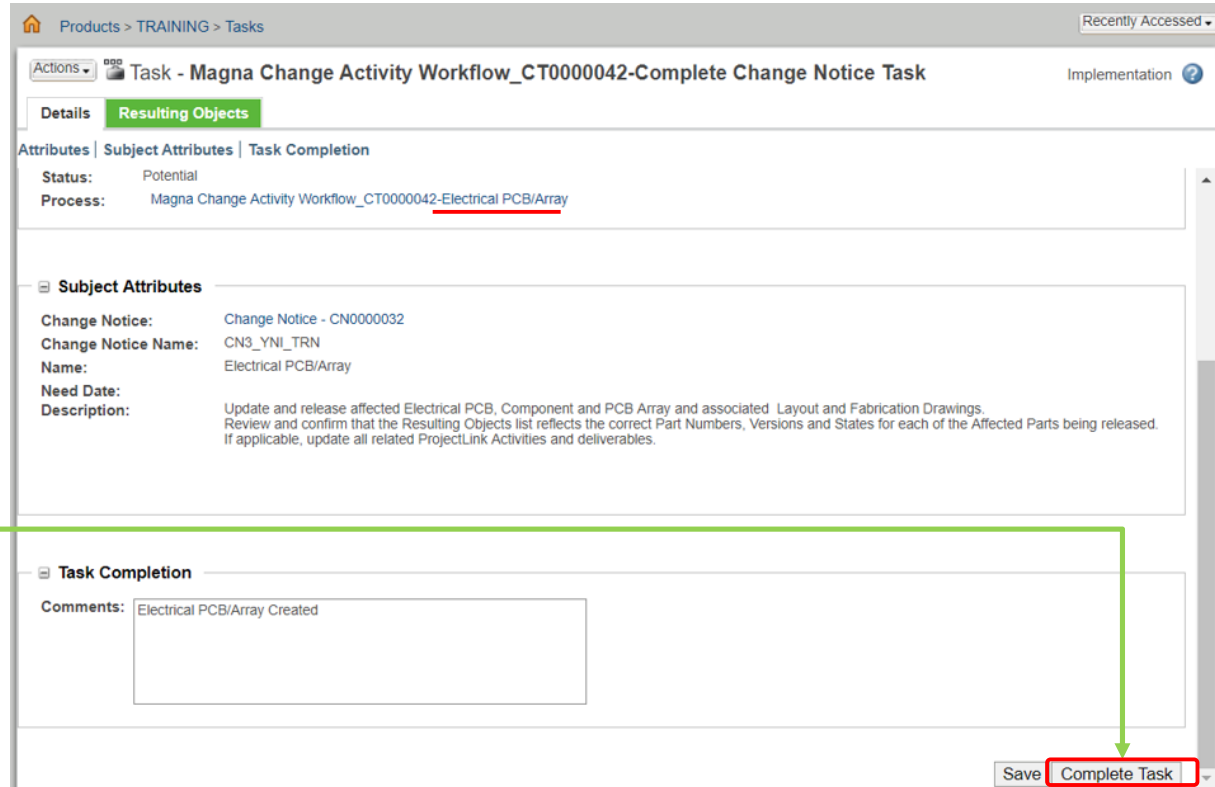


Tasks | Updates | Checked-Out Work

My Tasks

Actions

Name
Complete Change Notice Task



Products > TRAINING > Tasks Recently Accessed

Task - Magna Change Activity Workflow_CT0000042-Complete Change Notice Task Implementation

Details **Resulting Objects**

Attributes | Subject Attributes | Task Completion

Status: Potential

Process: Magna Change Activity Workflow_CT0000042-Electrical PCB/Array

Subject Attributes

Change Notice: CN0000032

Change Notice Name: CN3_YNI_TRN

Name: Electrical PCB/Array

Need Date:

Description: Update and release affected Electrical PCB, Component and PCB Array and associated Layout and Fabrication Drawings. Review and confirm that the Resulting Objects list reflects the correct Part Numbers, Versions and States for each of the Affected Parts being released. If applicable, update all related ProjectLink Activities and deliverables.

Task Completion

Comments: Electrical PCB/Array Created

Save **Complete Task**