

Process Plan business challenges and solutions

Business Challenge

1. Users cannot add **NC Programs** directly within Process Plan.
2. Manual entry of Part quantity during drag-and-drop from Workbench.
3. No direct way to replace consumed parts in MPP.
4. No direct option to create Process Plan from MBOM view.
5. Export action does not fully support Process Plan data for IBS parts.
6. No standardized mechanism to import Process Plan (MPP) data from external systems.

Solution Overview

1. Incorporation of NC Program within Process Plan.
2. System automatically sets initial Part quantity from EBOM during drag-and-drop.
3. Introduced “Replace Part” action for Consumed Parts in MPP.
4. Added “Create Process Plan” action in MBOM view.
5. Enhanced Export action for IBS Parts
6. Introduced “IBS Import” action for importing MPP from pipe-separated files

NC Programs

mpp_Resource ☆ 🚩

^ ItemType

Name: mpp_Resource
History Template: mpp_Resource

Singular Label: Resource
Plural Label: Resources

Show Parameters Tab: Never
Default Structure View: Tabs Off

Versioning: Versionable
 Discipline
Automatic
Revisions
Default

Search: Auto Search
Default Page Size: 50
Max Records

Unlock On Logout
 Dependent
 Is Relationship
 Enforce Discovery
 Use Src Access

Implementation Type:
 Single Item
 Poly Item
 Federated Item

Class Structure Small Icon Large Icon

Properties RelationshipTypes Views Server Events

ItemTypes ☆

Hidden ▾

Name ↑	Description [...]
mpp_Machine	
mpp_Tool	

Process Plans x P23124 x Parts x

Location: new

Mount Assembly → P23124

- 5 : Operation 1
- 10 : Build M
- 20 : Assembly

Select Items

Resources ▾

Resource ▾ | Simple ▾

Resource	Name	ItemType
Machin		
1731	Wrench	Tool
1802	Screw Driver	Tool
2301	Plier	Tool
3752	Hex Key	Tool
U7234	Drilling Machine	Machine
D8123	Lathe	Machine

NC100 NC Program NC Program

» P23124 ☆ 🚩

Save Done Discard

Location: Detroit ▾ Language: English ▾

Mount Assembly → P23124

- 5 : Operation 1
- 1731
- D8123
- NC100

» P23124 ☆ 🚩

Save
Done
Discard
↺
↻
🌐

ProcessPlan : Mount Assembly - Mount Assembly

Operation 5 : Operation 1

Location: Detroit Language: English
 Mount Assembly → P23124
 5 : Operation 1
 1731
 D8123
 NC100

Resource Number	Name	Type
1731	Wrench	Tool
D8123	Lathe	Machine
NC100	NC Program ABC	NC Program

Business Impact:

- Enables seamless addition of NC Programs within Process Plan.
- Eliminates manual effort for entering Part quantities.

Part replacement within Process Plans



MPP_TEST1 ☆

Save Done Discard

Location: Language: English

MPP_TEST1 → ASSY1

- 10 : Op1
 - COMP1
- PHANTOM → PHANTOM
 - 10 : Op1
 - COMP2
 - COMP3

ProcessPlan : MPP_TEST1 - ASSY1

Operation 10 : Op1

Part Number	Part Name	Type
COMP1	COMP1	Component
PHANTOM	PHANTOM	Phantom

Replace Part

Select Items

Parts

Part Number	Revi...	Name	Type	State	Cost	Chan...	Indexed On [...]
ASSY1	A	ASSY1	Assembly	Preliminary		<input type="checkbox"/>	
COMP1	A	COMP1	Component	Preliminary		<input type="checkbox"/>	
COMP2	A	COMP2	Component	Preliminary		<input type="checkbox"/>	
COMP3	A	COMP3	Component	Preliminary		<input type="checkbox"/>	
COMP4	A	COMP4	Component	Preliminary		<input type="checkbox"/>	

OK Cancel

MPP_TEST1 ☆

Save Done Discard

Location: Language: English

MPP_TEST1 → ASSY1

- 10 : Op1
 - COMP4
- PHANTOM → PHANTOM
 - 10 : Op1
 - COMP2
 - COMP3

ProcessPlan : MPP_TEST1 - ASSY1

Operation 10 : Op1

Part Number	Part Name	Type
COMP4	COMP4	Component
PHANTOM	PHANTOM	Phantom

Business Impact

- Simplifies part replacement within Process Plans.
- Prevents unintended changes to original assemblies.

MPP_TEST1 ☆

Save Done Discard

Location: Language: English

MPP_TEST1 → ASSY1

- 10 : Op1
 - COMP4
- PHANTOM → PHANTOM
 - 10 : Op1
 - COMP2
 - COMP3

ProcessPlan : MPP_TEST1 - ASSY1

Operation 10 : Op1

Part Number	Part Name	Type
COMP4	COMP4	Component
PHANTOM	PHANTOM	Phantom

Creating Process Plan from MBOM view



Location: [dropdown]

Part Number	Name	Type	Qua...	Op...	Planned	Part Status	Reconcil...
ASSY1	ASSY1	Assembly	1				
COMP4	COMP4	Component	1	10	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
PHANTOM	PHANTOM	Phantom	1	10	<input checked="" type="checkbox"/>		
COMP2	COMP2	Component	1	10	<input type="checkbox"/>		
COMP3	COMP3	Component	1	10	<input type="checkbox"/>		
COMP1	COMP1	Component	1	10	<input type="checkbox"/>		<input type="checkbox"/>

Create Process Plan
View Item

Process Plans x MPP_TEST1 x

Location: [dropdown] Language: English [dropdown]

MPP_TEST1 → ASSY1

- 10 : Op1
 - COMP4 → COMP4
 - 10 : Test
 - PHANTOM → PHANTOM
 - COMP1 → PHANTOM
 - COMP1

Create Process Plan
View Item

ProcessPlan : MPP_TEST1 - ASSY1
Operation 10 : Op1

Part Number	Part Nar
COMP4	COMP4
PHANTOM	PHANTO
COMP1	COMP1

COMP1

Save Done Delete

Process Plan

Process Plan Number Revision State

COMP1 [input] [input] [input]

Name [input]

Description [input]

Produced Part Locations

Parts [dropdown] [star]

Part Number	Revi...	Name	Type	Str
COMP1	A	COMP1	Component	Pre

Process Plans x MPP_TEST1 x

MPP_TEST1 [star] [flag]

Save Done Discard [refresh] [undo]

Location: [dropdown] Language: English [dropdown]

MPP_TEST1 → ASSY1

- 10 : Op1
 - COMP4
 - PHANTOM
 - COMP1
 - COMP1 → COMP1
 - 10 : Op1

Result

Business Impact

- Eliminates need to switch between views.
- Improves workflow efficiency and user experience.

Contact Us



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