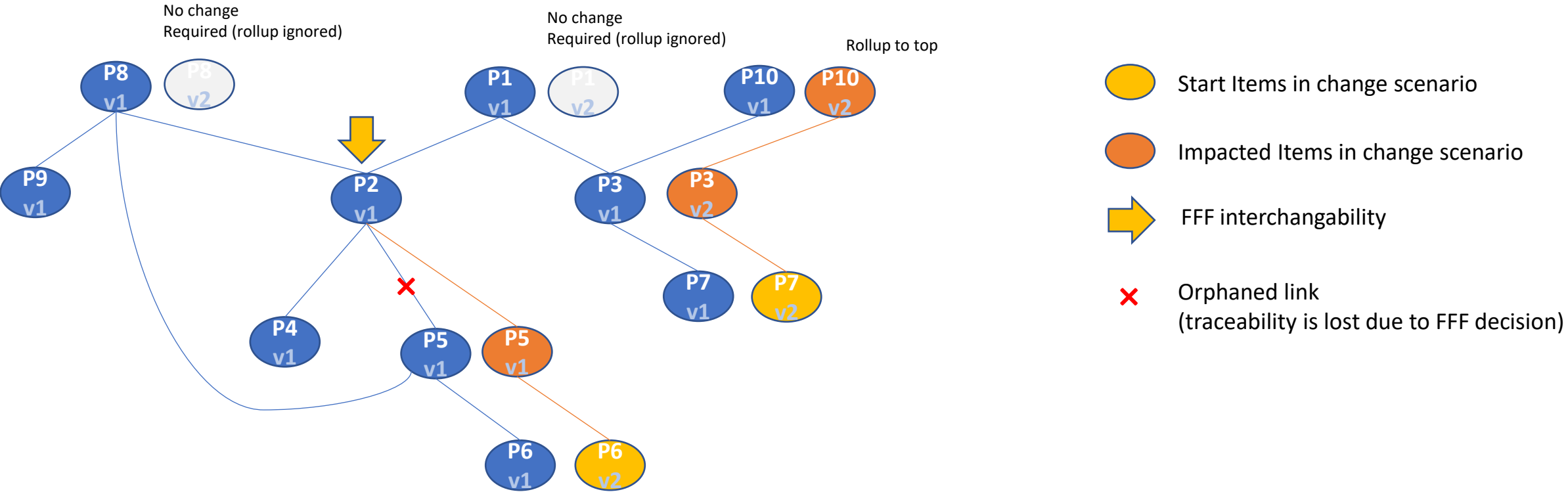


ECN Change Rollup Wizard

Solution Package

Introduction – Change Rollups



Purpose

- Extend standard ECN capability
- Allow to define change rollup decisions (to top, ignore, to level below top)
- Automate adding of impacted items from „where used“ to „affected Items“

Sample Data for Change Rollup

^ Part

Part Number

P8

Revision

A

State

Released

Name

Part 8

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
<div><div></div><div>⚙ P9</div></div>	A.1	Released	1	1		Part 9
<div><div>☐</div><div>⚙ P2</div></div>	A.1	Released	2	1		Part 2
<div><div></div><div>⚙ P4</div></div>	A.1	Released	1	1		Part 4
<div><div>☐</div><div>⚙ P5</div></div>	A.1	Released	2	1		Part 5
<div><div></div><div>⚙ P6</div></div>	A.1	Released	1	1		Part 6

^ Part

Part Number

P1

Revision

A

State

Released

Name

Part 1

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
<div><div>☐</div><div>⚙ P2</div></div>	A.1	Released	1	1		Part 2
<div><div></div><div>⚙ P4</div></div>	A.1	Released	1	1		Part 4
<div><div>☐</div><div>⚙ P5</div></div>	A.1	Released	2	1		Part 5
<div><div></div><div>⚙ P6</div></div>	A.1	Released	1	1		Part 6
<div><div>☐</div><div>⚙ P3</div></div>	A.1	Released	2	1		Part 3
<div><div></div><div>⚙ P7</div></div>	A.1	Released	1	1		Part 7

^ Part

Part Number

P10

Revision

A

State

Released

Name

Part 10

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
<div><div>☐</div><div>⚙ P3</div></div>	A.1	Released	1	1		Part 3
<div><div></div><div>⚙ P7</div></div>	A.1	Released	1	1		Part 7

Create ECN with the „Start“ Items

ECN-100003

Save

Done

Discard

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Status

New

Basis

Administrative Hierarchy

Physical Hierarchy

Priority

1

2

3

Assigned Creator

Effectivity Date

Customer Approval Required

Where Used Impact Wizard Enabled

Description

Special Instructions

Affected Items

ECRs

Files

Signoffs

Affected Items

Hidden

	Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...	Old Status	Name	Interchang...
	⚙	Start	Change	Review	P6	A	1	Released	Part 6	✓
	⚙	Start	Change	Review	P7	A	1	Released	Part 7	✓

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Next >

Page: 1 of 1

2 Results

See automatically populated „Where Used Impact“

ECN-100003 ☆

Edit ↻ ↺ ↻ ⌵ ⌵ ⋮

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Status

New

Basis

☐ Administrative Hierarchy

☐ Physical Hierarchy

Priority

☐ 1

☐ 2

☐ 3

☐ 4

Assigned Creator

☐ Customer Approval Required

☒ Where Used Impact Wizard Enabled

Effectivity Date

Description

Special Instructions

Affected Items

Where Used Impact

ECRs

Files

Signoffs

Affected Items

⚙️ ⚠️ 🔍 🔍 Hidden ⌵ ⌵ ⌵

Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...
⚙️	Start	Change	Review	P6	A	1
⚙️	Start	Change	Review	P7	A	1

< Prev Next > Page: 1 ⋮ | 🔍

After initial create, you may have to close and re-open the ECN to see the tab !

Affected Items **Where Used Impact** ECRs Files Signoffs


ECN WhereUsed Impact ☆


⚙️ ⚠️ 🔍 🔍 Hidden ⌵ ⌵ ⌵

Affected Item [...]	Ignore Path	Where Used Path [...]	fff Interchangeable Item
P6	<input checked="" type="checkbox"/>	/P5/P2/P1/Top	
P6	<input checked="" type="checkbox"/>	/P5/P2/P8/Top	
P7	<input checked="" type="checkbox"/>	/P3/P10/Top	
P7	<input checked="" type="checkbox"/>	/P3/P1/Top	

< Prev Next > Page: 1 ⋮ | 🔍

Define FFF interchangeable Item P2





ECN-100003 ☆ 


Save


Done


Discard











ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Affected Items


Where Used Impact


ECRs


Files


Signoffs

ECN WhereUsed Impact ☆












Hidden








Affected Item [...]	Ignore Path	Where Used Path [...]	fff Interchangeable Item
P6	<input checked="" type="checkbox"/>	/P5/P2/P1/Top	P2
P6	<input checked="" type="checkbox"/>	/P5/P2/P8/Top	P2
P7	<input checked="" type="checkbox"/>	/P3/P10/Top	
P7	<input checked="" type="checkbox"/>	/P3/P1/Top	

< Prev

Next >

Page: 1 of 1

4 Results



Affected Items


Where Used Impact


ECRs


Files


Signoffs

Affected Items ☆















Hidden









Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...	Old Status
	Start	Change	Review	P6	A	1	Released
	Start	Change	Review	P7	A	1	Released
	Impacted	Change	Revise	P5	A	1	Released

< Prev

Next >

Page: 1





FFF = Fit, Form, Function

Define Rollups to „Top“



ECN-100003 ☆

Save

Done

Discard

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Affected Items

Where Used Impact

ECRs

Files

Signoffs

ECN WhereUsed Impact ☆

Hidden

Affected Item [...]	Ignore Path	Where Used Path [...]	fff Interchangeable Item
P6	<input type="checkbox"/>	/P5/P2/P1/Top	P2
P6	<input type="checkbox"/>	/P5/P2/P8/Top	P2
P7	<input checked="" type="checkbox"/>	/P3/P10/Top	Top
P7	<input checked="" type="checkbox"/>	/P3/P1/Top	

< Prev

Next >

Page: 1



Affected Items

Where Used Impact

ECRs

Files

Signoffs

Affected Items ☆

Hidden

Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...	Old Status	Name
	Start	Change	Review	P6	A	1	Released	Part
	Start	Change	Review	P7	A	1	Released	Part
	Impacted	Change	Revise	P5	A	1	Released	Part
	Impacted	Change	Revise	P3	A	1	Released	Part
	Impacted	Change	Revise	P10	A	1	Released	Part



Change „Review“ Item Action to „Revise“

ECN-100003 ☆

Save

Done

Discard

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Status

New

Basis

Administrative Hierarchy

Physical Hierarchy

Priority

1

2

3

4

Assigned Creator

Effectivity Date

Customer Approval Required

Where Used Impact Wizard Enabled

Description

Special Instructions

Affected Items

Where Used Impact

ECRs

Files

Signoffs

Workflow History Report

Item: ECN-100003

Started By: Mike Miller

ECN Workflow

Started On: 3/25/2020 11:17:19 AM

Current Status is: Active

Completed On:

Activity	State	Assigned To	Completed By	How Voted	When	Comments
Submit ECN	Closed	Mike Miller	Mike Miller	Submit	3/25/2020 11:25:31 AM	
ECN Planning	Closed	Change Specialist II	Mike Miller	Complete	3/25/2020 11:25:47 AM	
Update Documents	Active	Mike Miller		VOTE NOW		

Affected Items

Where Used Impact

ECRs

Files

Signoffs

Affected Items

Hidden

Advance Workflow to this activity

See New Item Versions - Finish Workflow

ECN-100003 ☆

Edit

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Status

In Work

Basis

☐ Administrative Hierarchy

☐ Physical Hierarchy

Priority

☐ 1

☐ 2

☐ 3

☐ 4

Assigned Creator

☐ Customer Approval Required

☒ Where Used Impact Wizard Enabled

Effectivity Date

Description

Special Instructions

Affected Items Where Used Impact ECRs Files Signoffs



Workflow History Report

Item: ECN-100003			ECN Workflow		Current Status is: Closed	
Started By: Mike Miller			Started On: 3/25/2020 11:17:19 AM		Completed On: 3/25/2020 11:28:21 AM	
Activity	State	Assigned To	Completed By	How Voted	When	Comments
Submit ECN	Closed	Mike Miller	Mike Miller	Submit	3/25/2020 11:25:31 AM	
ECN Planning	Closed	Change Specialist II	Mike Miller	Complete	3/25/2020 11:25:47 AM	
Update Documents	Closed	Mike Miller	Mike Miller	Complete	3/25/2020 11:26:42 AM	
Review Documents	Closed	Change Specialist II	Mike Miller	Approve	3/25/2020 11:26:49 AM	
ECN Audit	Closed	Change Specialist III	Innovator Admin	Complete	3/25/2020 11:28:17 AM	



Affected Items Where Used Impact ECRs Files Signoffs



Affected Items ☆

Hidden

Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...	Old Status	Name	Interchang...	New Number ...	New Re...	New...	New Status
⚙	Start	Change	Revise	P6	A	1	In Change	Part 6	✓	P6	B	2	Preliminary
⚙	Start	Change	Revise	P7	A	1	In Change	Part 7	✓	P7	B	2	Preliminary
⚙	Impacted	Change	Revise	P5	A	1	In Change	Part 5	✓	P5	B	2	Preliminary
⚙	Impacted	Change	Revise	P3	A	1	In Change	Part 3	✓	P3	B	2	Preliminary
⚙	Impacted	Change	Revise	P10	A	1	In Change	Part 10	✓	P10	B	2	Preliminary



BOMs after Change – P8, P1, P10

 Version unchanged
 Version has changed

Part

Part Number

P8

Revision

A

State

Released

Name

Part 8

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
⚙ P9	A.1	Released	1	1		Part 9
⊞ ⚙ P2	A.1	Released	2	1		Part 2
⚙ P4	A.1	Released	1	1		Part 4
⊞ ⚙ P5	B.2	Released	2	1		Part 5
⚙ P6	B.2	Released	1	1		Part 6

Part

Part Number

P1

Revision

A

State

Released

Name

Part 1

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
⊞ ⚙ P2	A.1	Released	1	1		Part 2
⚙ P4	A.1	Released	1	1		Part 4
⊞ ⚙ P5	B.2	Released	2	1		Part 5
⚙ P6	B.2	Released	1	1		Part 6
⊞ ⚙ P3	A.1	Superseded	2	1		Part 3
⚙ P7	A.1	Superseded	1	1		Part 7

Part

Part Number

P10

Revision

B

State

Released

Name

Part 10

Part Number	R...	State	Seque...	Quantity	Claimed By	Name
⊞ ⚙ P3	B.2	Released	1	1		Part 3
⚙ P7	B.2	Released	1	1		Part 7

Implementation Details

Standard ECN

ECN-100003

Edit

ECN

ECN Number

ECN-100003

Title

Change Rollup Test 1

Status

New

Basis

Administrative Hierarchy

Physical Hierarchy

Priority

1

2

3

4

Assigned Creator

Customer Approval Required

Where Used Impact Wizard Enabled

Effectivity Date

Description

Special Instructions

Affected Items

Where Used Imp:

Affected Items

Hidden

Ty...	How	Action	Item Action	Old Number [...]	Old Rev...	Old ...	Old Status	Name	Interchang.
	Start	Change	Review	P6	A	1	Released	Part 6	<input checked="" type="checkbox"/>
	Start	Change	Review	P7	A	1	Released	Part 7	<input checked="" type="checkbox"/>

< Prev

New Flag:
Must be set to enable logic of "Change Rollup Wizard"








Exposed existing column: (known from ECOs)
Default is "Review"
Can be set to: "Revise, Release, None..." .. Rows with "none" will get removed when progressing the workflow

New column:
Default is "Start"
Can be set to: "Start, Impacted"
Has no influence on standard ECN logic
Does influence additional logic added by this solution



Change Rollup Wizard (new tab)

^ Affected Items **Where Used Impact** ECRs Files Signoffs

ECN WhereUsed Impact ☆

  |   Hidden ▾ |  ▾  ▾  ▾

Affected Item [...]	Ignore Path	Where Used Path [...]	fff Interchangeable Item
P6	<input type="checkbox"/>	/P5/P2/P1/Top	P2
P6	<input type="checkbox"/>	/P5/P2/P8/Top	P2
P7	<input checked="" type="checkbox"/>	/P3/P10/Top	Top
P7	<input checked="" type="checkbox"/>	/P3/P1/Top	

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Rows are added automatically from “Affected Items” marked with “Start”
These 2 columns are editable.
“Wizard” will add items from path to “Affected Items” marked with “Impacted” based on defined rules

Rules for setting interchangeable FFF items:

If a fff number is entered and ignore path is checked, it will be unchecked.

If ignore path is unchecked and no FFF item is set in the same row, the number will be set to „Top“

The number will be checked against the „path“ in the same row and must exist there.

If the FFF number does also exists in other rows, and one of these rows already has another FFF number (or „Top“) set, then an error will inform about this conflict (

If the FFF number does also exists in other rows, and none of these rows has a FFF number set, then these rows will also get the same FFF number set.

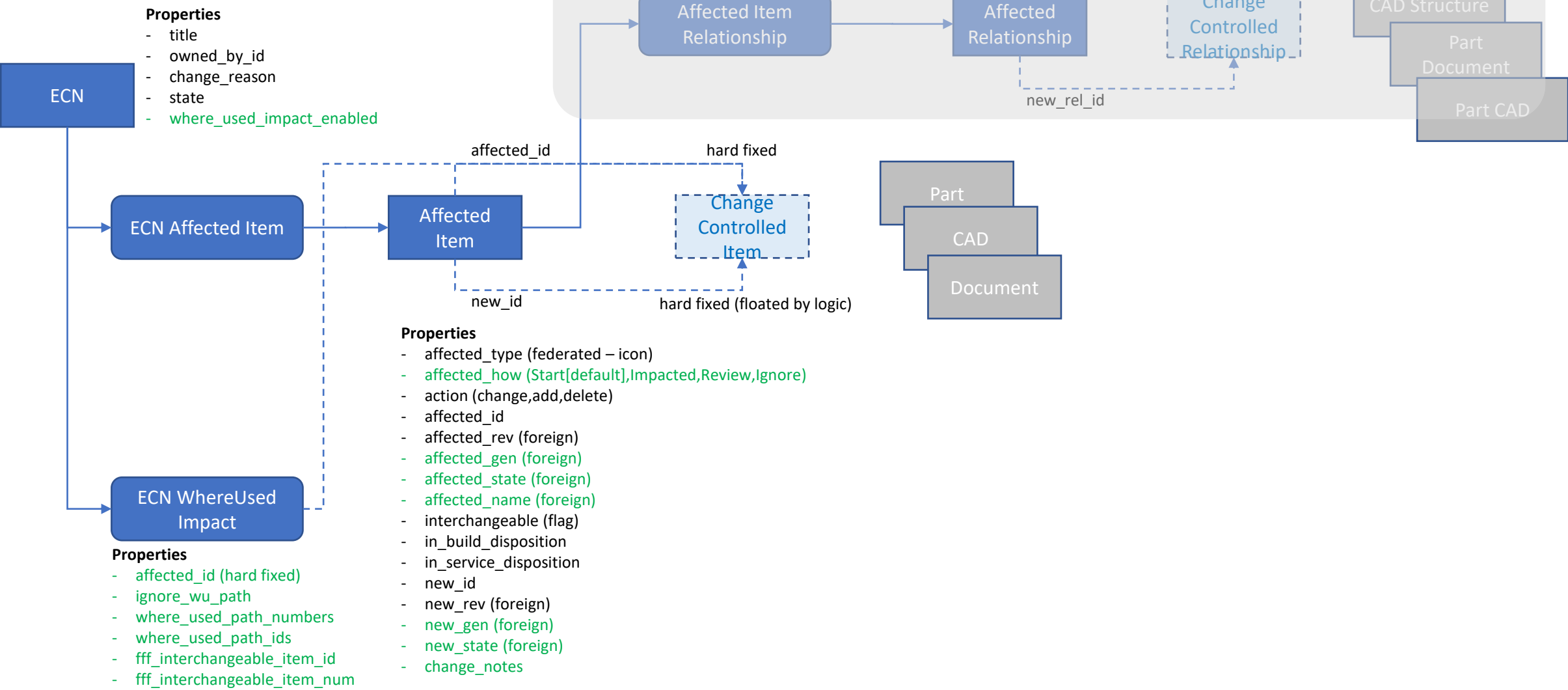
If ignore path is checked on a row that has an FFF number set, then all rows with the same FFF number will also get the ignore path checked and FFF number on all rows will be cleared.

Rules for syncing Affected Item from interchangeable FFF items settings:

- (1) For all rows with the ignore path **checked**:
- All items that are listed on Affected Items (other tab) marked as „Impacted“ and that are also listed on the Where Used Paths will be removed from the Affected Items.
- (2) For all rows with the ignore path **unchecked**:
- All items at lower levels as the listed FFF number (to the left of FFF number in path) will be added to the Affected Items list (other tab) marked as „Impacted“

ECN Data Model

*added Properties



Properties

- title
- owned_by_id
- change_reason
- state
- where_used_impact_enabled

