



STREAMLINING YOUR PART-CENTRIC PLM PROCESSES

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AGENDA

- Reducing the Friction while working with Part and CAD
- Visualizing your BOM
- Working with your BOM
- Defining Product Families with Platform Structures
- Manufacturing BOM Transformation – Extending the Value

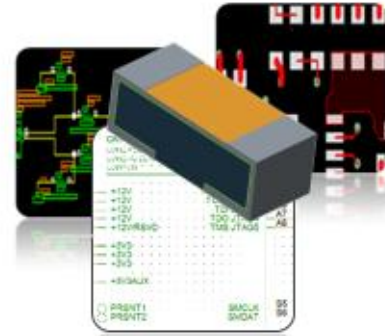
MANAGING THE BOM

PRODUCT DATA IS COMPLEX, AND CONSUMED IN MANY WAYS



**Engineers
Designers**

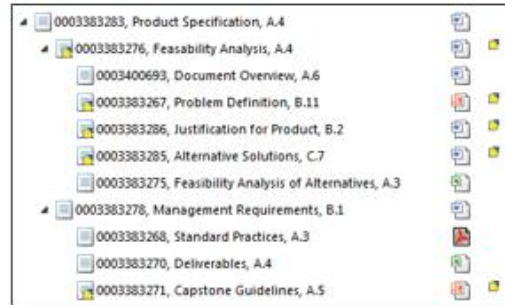
PRODUCT DATA



Multiple data types: Sensor,
Electronic, Software, Mechanical



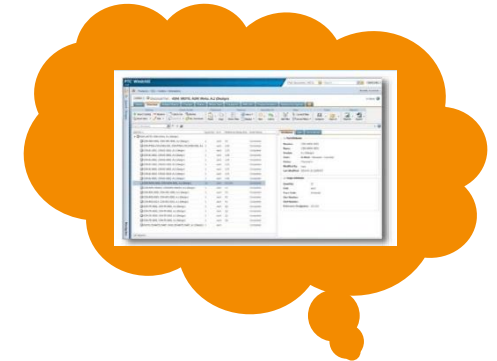
Global enterprise teams,
partners, suppliers, customers



Specifications, parts and
product characteristics



Multiple systems



**Enterprise Teams
Partners
Suppliers
Customers**

WINDCHILL BOM MANAGEMENT SOLUTION

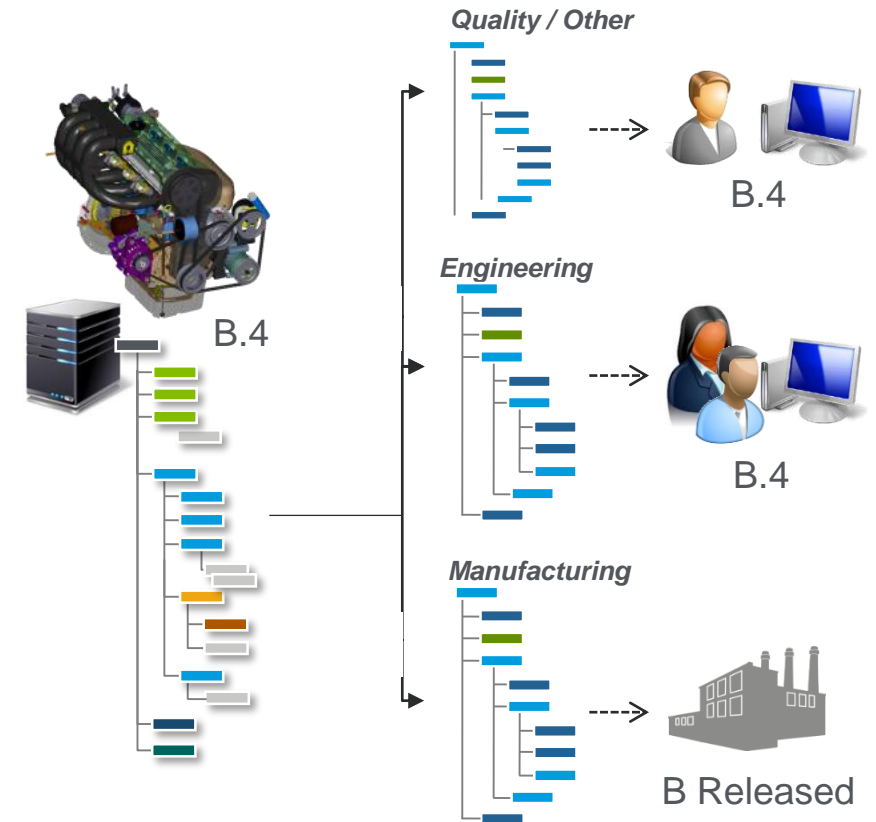


Windchill BOM Management:

- Single view to all product configuration data
- End user access to relevant views of product data
- Capture and trace updates

Managing a holistic product definition:

- Reduces errors between systems
- Improves data quality with associative BOMs
- Synchronizes product configurations with ERP/MES



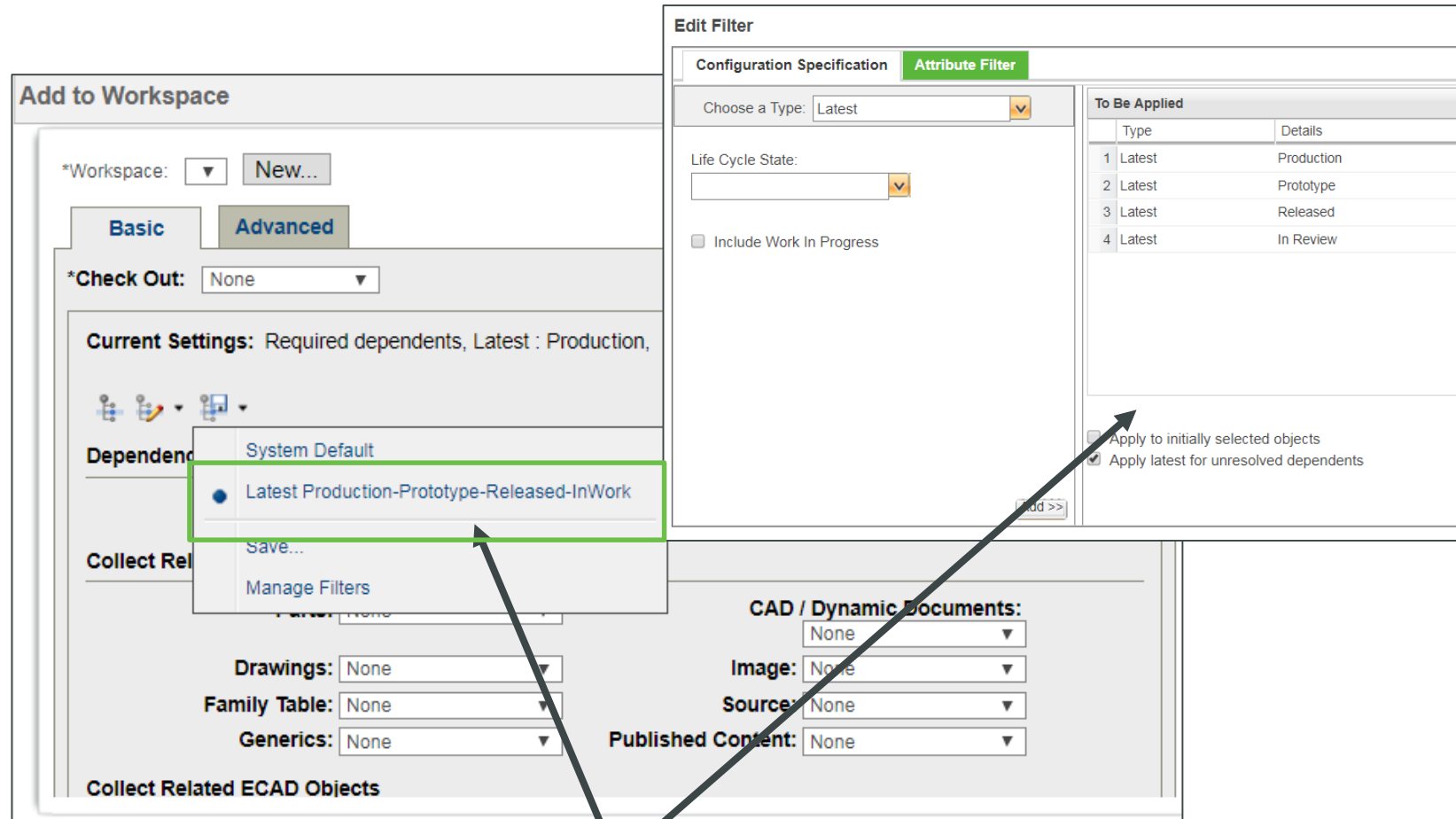
REDUCING THE FRICTION WHILE WORKING WITH PART AND CAD

SAVED FILTERS SUPPORT FOR ADD TO WORKSPACE



CAPABILITIES

- Access to Saved Filters in Add to Workspace UI
- Access to Saved Filters created in Add to Workspace, CAD Document Structure Browser and Part Structure Browser
- Available from Basic and Advanced UI
- Admin can share saved filters to other users
- User may create his own personal filters



Easy to access to Saved Filters created in Add to Workspace

Available as of:
Windchill 11.1 F000

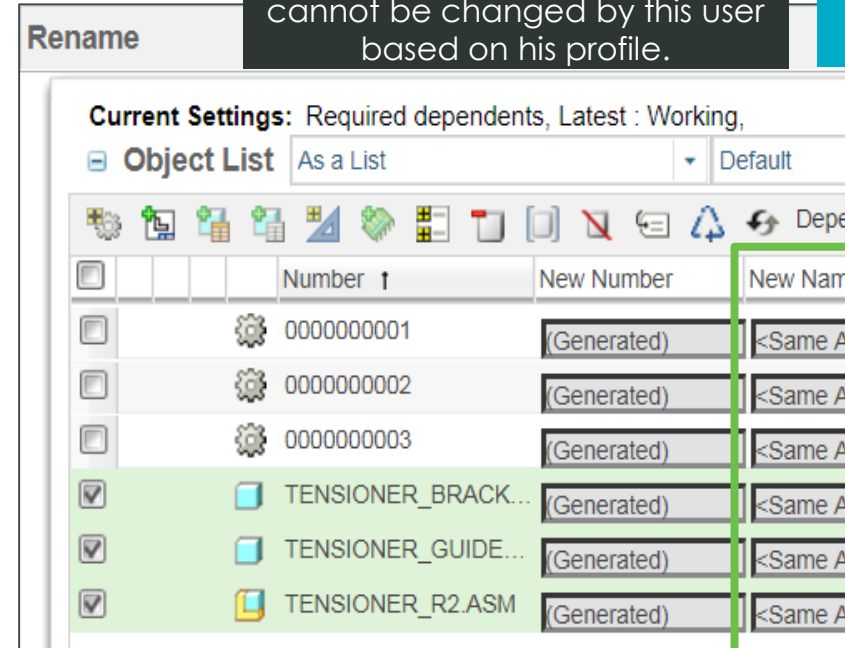
ROLE BASED IDENTITY IMPROVEMENTS

CAPABILITIES

- Profile settings to disable explicit setting of identity fields: Number, Name and File Name
- Enforce business rules in Save As and Rename for Parts and CAD/Dynamic Documents:
 - Number: ONLY generated from OIRs
 - Name: ONLY generated from OIRs
 - File Name: Same as number ONLY
- New: Preferences for Rename to control default behavior

Admin set default value that cannot be changed by this user based on his profile.

Available as of: Windchill 11.1 F000



Current Settings: Required dependents, Latest : Working,
Object List As a List Default

	Number	New Number	New Name
<input type="checkbox"/>	0000000001	(Generated)	<Same As
<input type="checkbox"/>	0000000002	(Generated)	<Same As
<input type="checkbox"/>	0000000003	(Generated)	<Same As
<input checked="" type="checkbox"/>	TENSIONER_BRACK...	(Generated)	<Same As
<input checked="" type="checkbox"/>	TENSIONER_GUIDE...	(Generated)	<Same As
<input checked="" type="checkbox"/>	TENSIONER_R2.ASM	(Generated)	<Same As

New Number:
☐ Unchanged
☒ Autogenerate
☐ Generate document number based on related Part
☐ Change
From: To:

New Name:
☐ Unchanged
☒ Same as number
☐ Change
From: To:

New File Name:
☐ Unchanged
☒ Same as number
☐ Change
From: To:

Profile Actions
3 matches found

Profile Action Name	Product	Library	Project
Set Identity New Number	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Set Identity New Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Set Identity New File Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

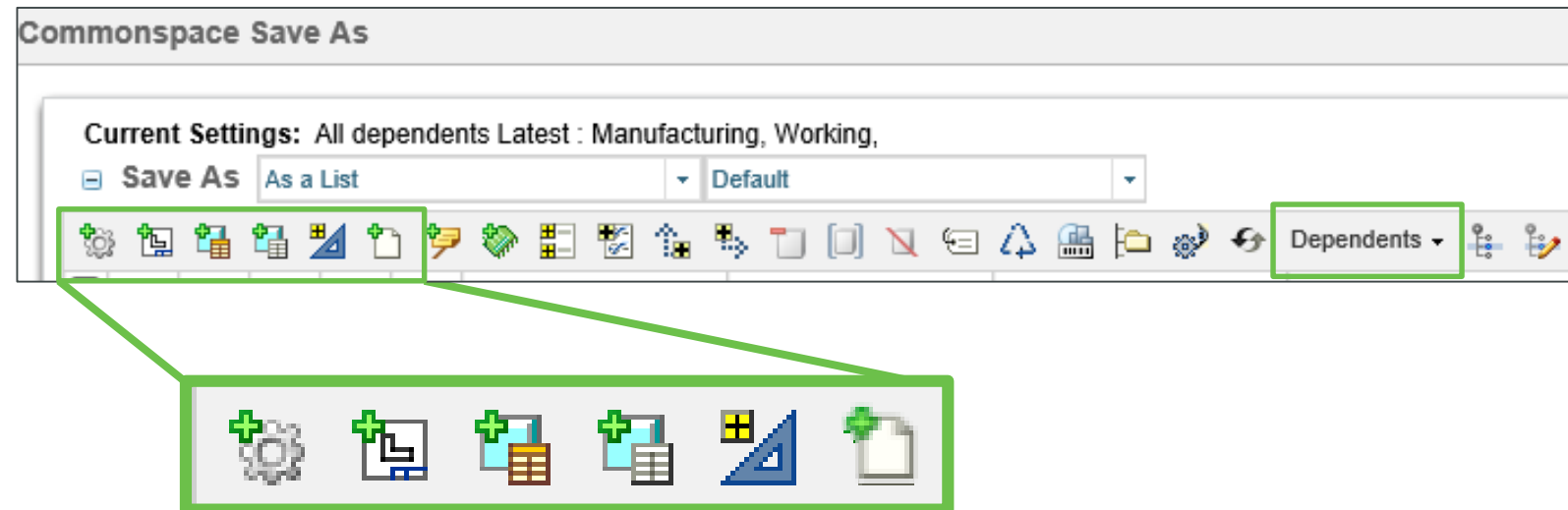
Rename
Collector

Default setting for File Name	Same as number
Default setting for Name	Same as number
Default setting for Number	Autogenerate

Commonspace Save Support

- Collect and Copy CAD Docs, Parts and Docs together
- Maintain links between new copies
- New Server-side preferences to control the default collection of Documents
- New Multi-select object entry points

Available as of:
Windchill 11.1 M010



Part - 0000000142, alternat...

File Edit View Favorites Tools Help

windchill® sshaw

Part, Document, CAD D... Search... Quick Links

Products > Prod_1

Part - 0000000142, alternator, A.2 (Design) In Work

Details Structure Changes History Related Objects Where Used Traceability AML/AVL Product Analytics UDI Submissions New Tab 1

Editing

Check Out/In

Clipboard

Viewing

New/Add To

Filter

Tools

Service

Reports

Find in Structure All Advanced

Identity	Quantity	Unit	Reference Designator	Build Status
0000000142, alternator, A.2 (Design)				
0000000021, Alternator Spec, A.1				
alternator.asm, A.1				
0000000125, alternator_pivot, A.2 (Design)				
1	each			Completed
0000000023, Document B, A.1				
0000000024, Document C, A.1				
alternator_pivot.prt, A.1				
0000000133, engine_mount, A.2 (Design)				
1	each			Completed
0000000022, Document A, A.1				
engine_mount.asm, A.1				
0000000122, engine_mount, A.1 (Design)				
1	each			Completed
engine_mount.prt, A.1				
0000000128, isolator, A.1 (Design)				
1	each			Completed
isolator.prt, A.1				
0000000137, alt_slide, A.1 (Design)				
1	each			Completed
alt_slide.prt, A.1				
0000000138, alt_bracket, A.1 (Design)				
1	each			Completed
alt_bracket.prt, A.1				
0000000140, alternator_pin, A.1 (Design)				
1	each			Completed
alternator_pin.prt, A.1				

(36 objects)

Attributes Classification Visualization Uses Occurrences Supersedes Documents

Part Attributes

Number:

0000000142

Name:

alternator

Default Unit:

each

Version:

A.2 (Design)

State:

In Work - Released - Canceled

Status:

Checked in

Modified By:

sshaw

Last Modified:

2018-06-12 15:47 GMT+00:00

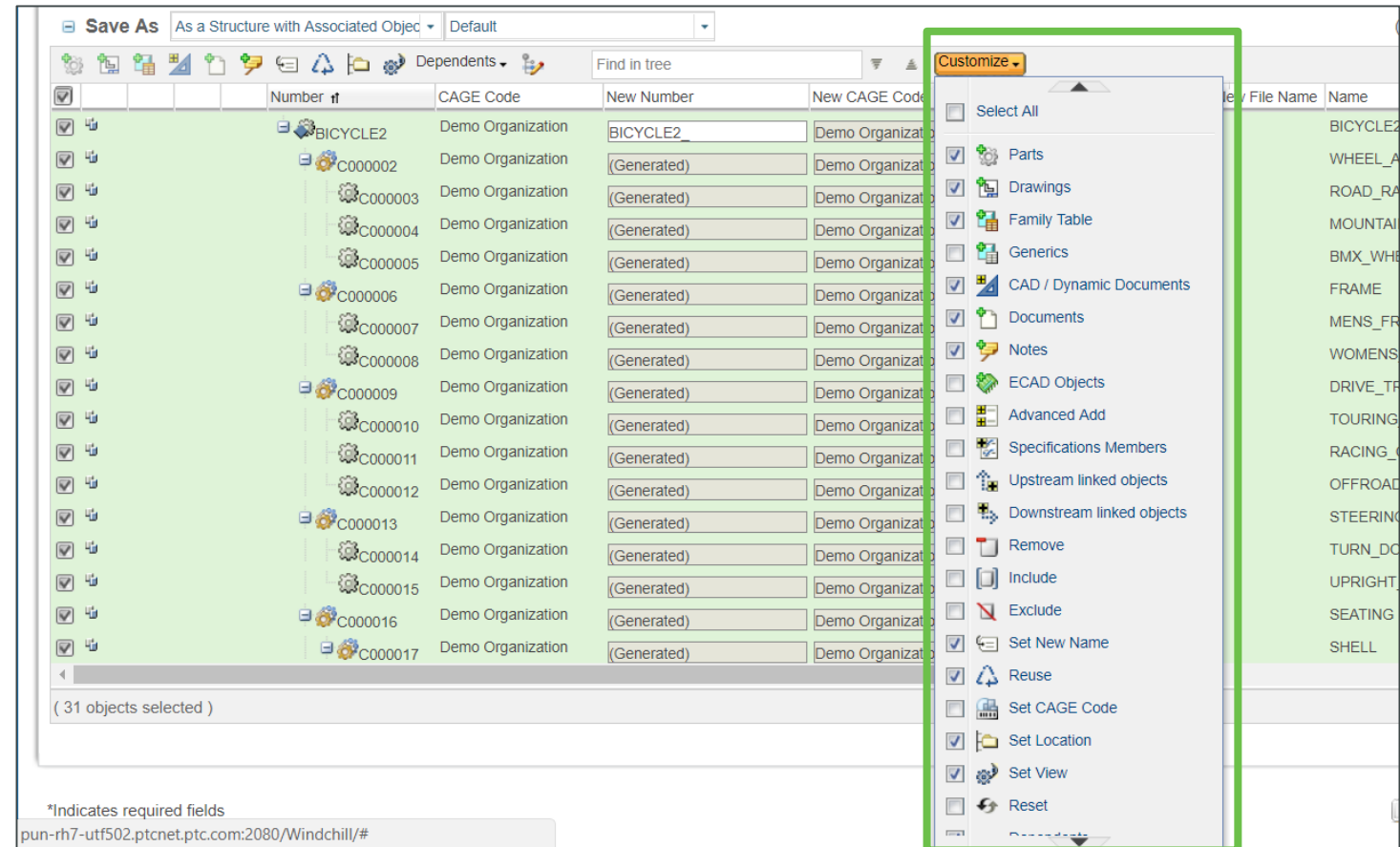
FLEX:

SUPPORT FOR TOOLBAR CUSTOMIZATION

CAPABILITIES

- Show/Hide actions on the toolbar per user.
- Customize control available for:
 - Commonsense Save As
 - Workspace Save As
 - Revise
- User's configuration is saved to the database

Available as of:
Windchill 11.1 M010



CREATE ASSOCIATIONS IN COMPARE TO PART STRUCTURE

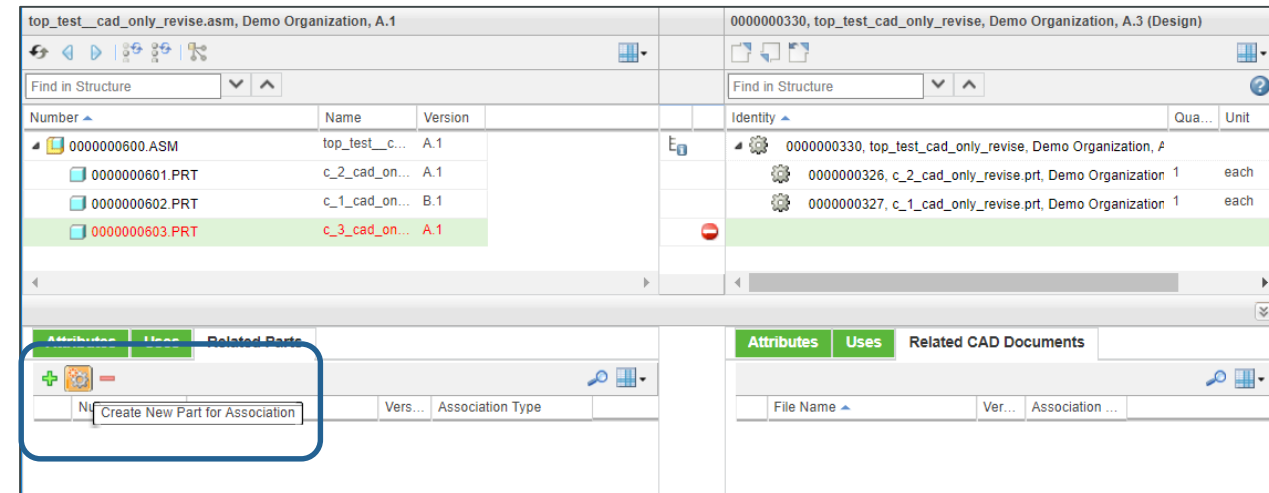


Benefit

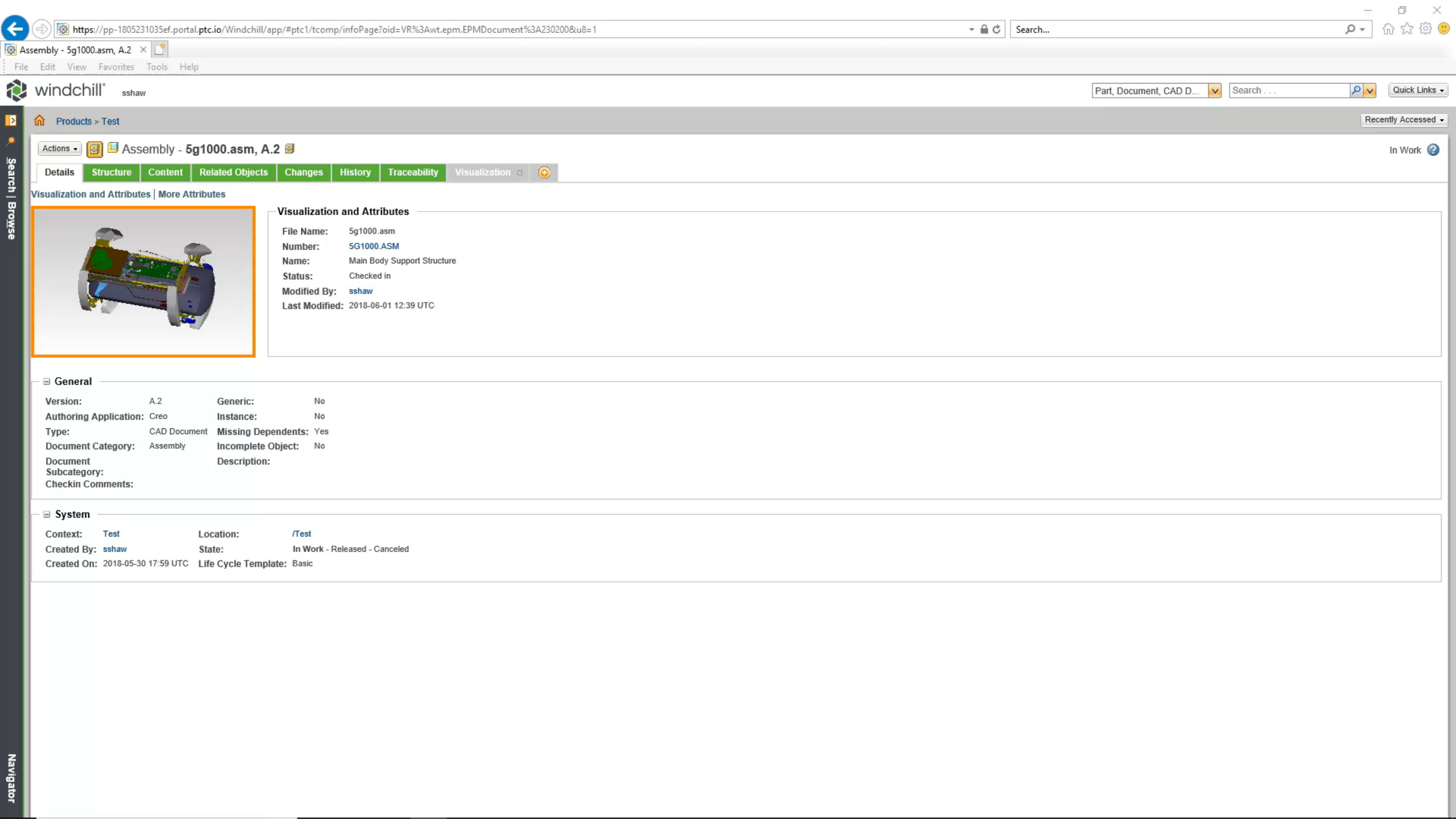
- Makes editing CAD driven BOM structures more accessible for the non-CAD user
- Easily identify missing associations
- Structured view for previewing and updating engineering BOM

Capabilities

- Associate new and Existing Parts while comparing CAD structure to Part Structure
- Change and Remove associations



Available as of:
Windchill 11.1 M010



Assembly - 5g1000.asm, A.2

File Edit View Favorites Tools Help

windchill[®]

sshaw

Part, Document, CAD D...

Search ...

Quick Links

Products > Test

Recently Accessed

Actions

Assembly - 5g1000.asm, A.2

In Work

Details

Structure

Content

Related Objects

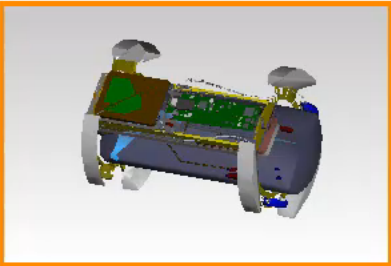
Changes

History

Traceability

Visualization

Visualization and Attributes | More Attributes



Visualization and Attributes

File Name: 5g1000.asm

Number: 5G1000.ASM

Name: Main Body Support Structure

Status: Checked in

Modified By: sshaw

Last Modified: 2018-06-01 12:39 UTC

General

Version: A.2

Authoring Application: Creo

Type: CAD Document

Document Category: Assembly

Document Subcategory:

Checkin Comments:

Generic: No

Instance: No

Missing Dependents: Yes

Incomplete Object: No

Description:

System

Context: Test

Created By: sshaw

Created On: 2018-05-30 17:59 UTC

Location: /Test

State: In Work - Released - Canceled

Life Cycle Template: Basic

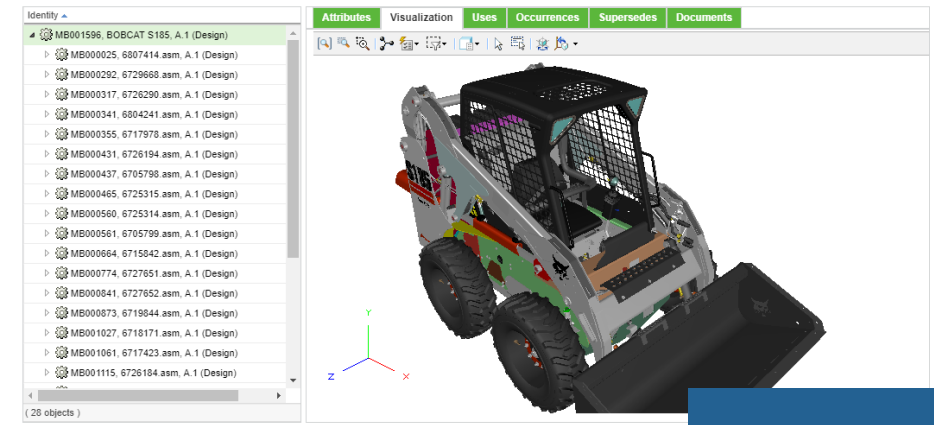
Search | Browse

Navigator

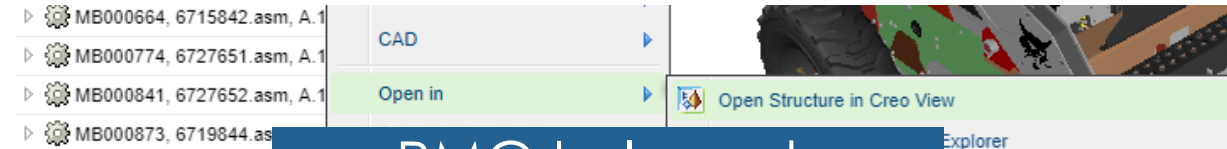
VISUALIZING YOUR BOM

DYNAMIC VISUALIZATION

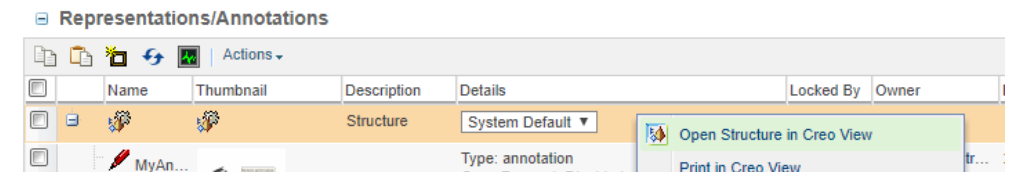
- Meant to provide the ability to **dynamically** build the resulting product **visualization** based on the structure and navigation criteria already in Windchill.
 - Visual navigation of BOM structure
 - Filter based adjustment in content (i.e. overloaded BOM filtering)
 - Viewing product data in various configurations (ex. released configurations)
- **Dynamic Visualization** can be in the context of a **WTPart** or **CAD Document** structure



In PSB

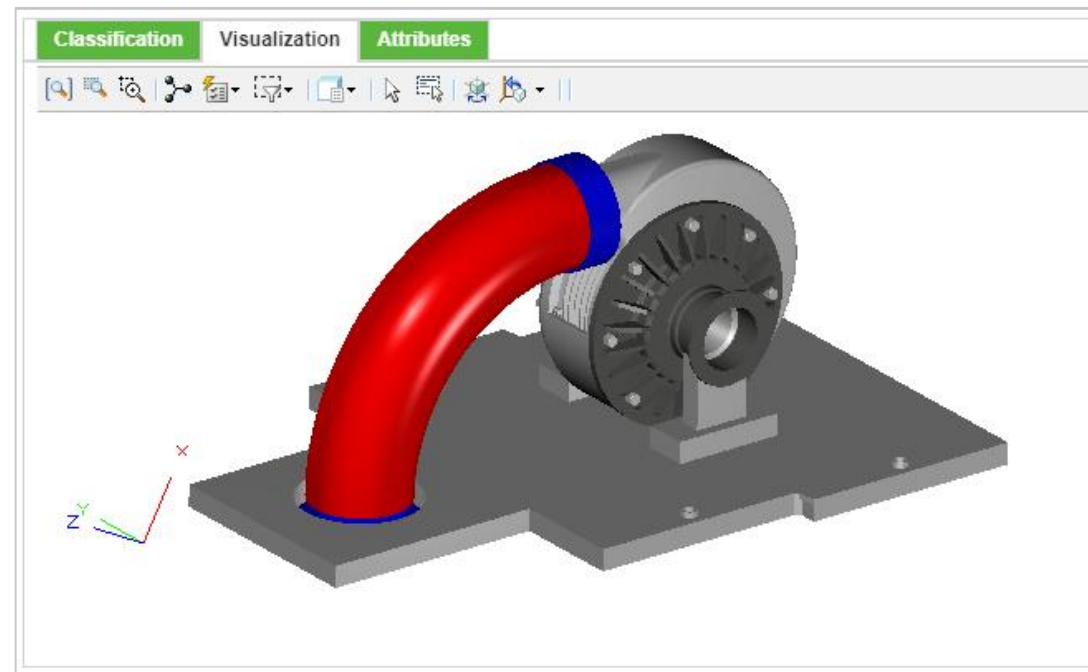


RMC to launch
CreoView from PSB



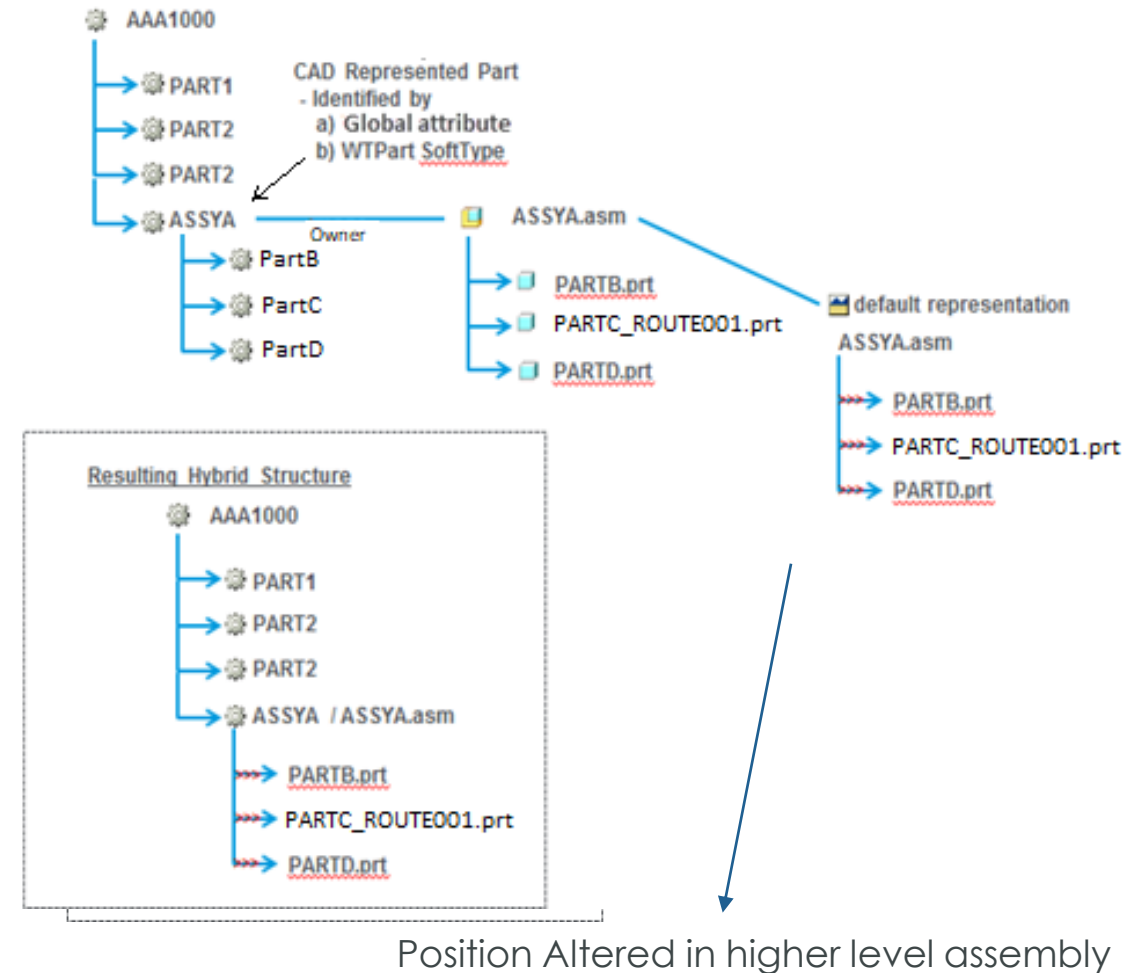
Launch from
Representations

VISUALIZATION RECENT CAPABILITIES



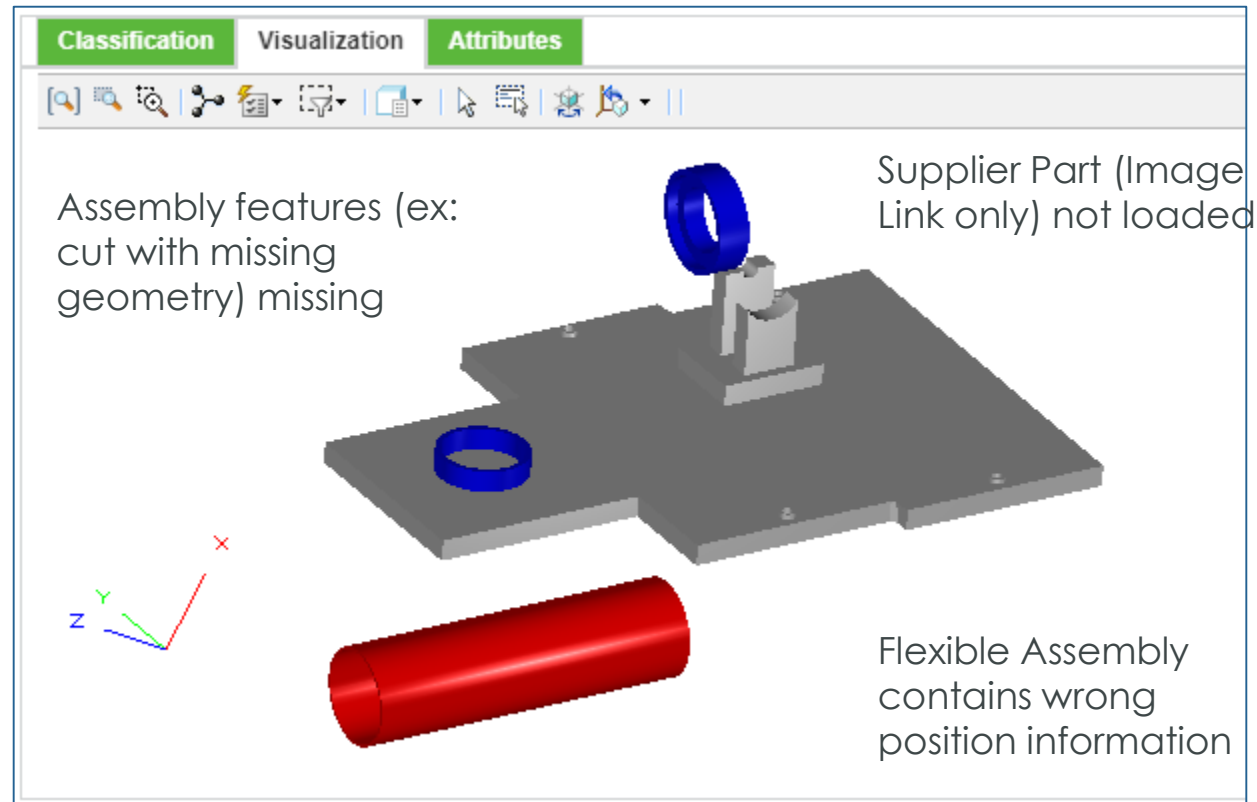
RECENT CAPABILITIES

- **Assembly Feature Support – 10.2 M030**
 - Use-case : Assembly Geometry Cuts
- **Flexible Assemblies – 11.1 M010**
 - Use-case : Assemblies with flexible positioning based on installation requirements
- **CAD Represented Parts – 10.2 M030**
 - Use-case : Supplier Parts associated with parts via Image Link
 - Use-case : Flexible Components modeled in various states (Hoses)



WHERE DOES THIS GET US

- From Here:

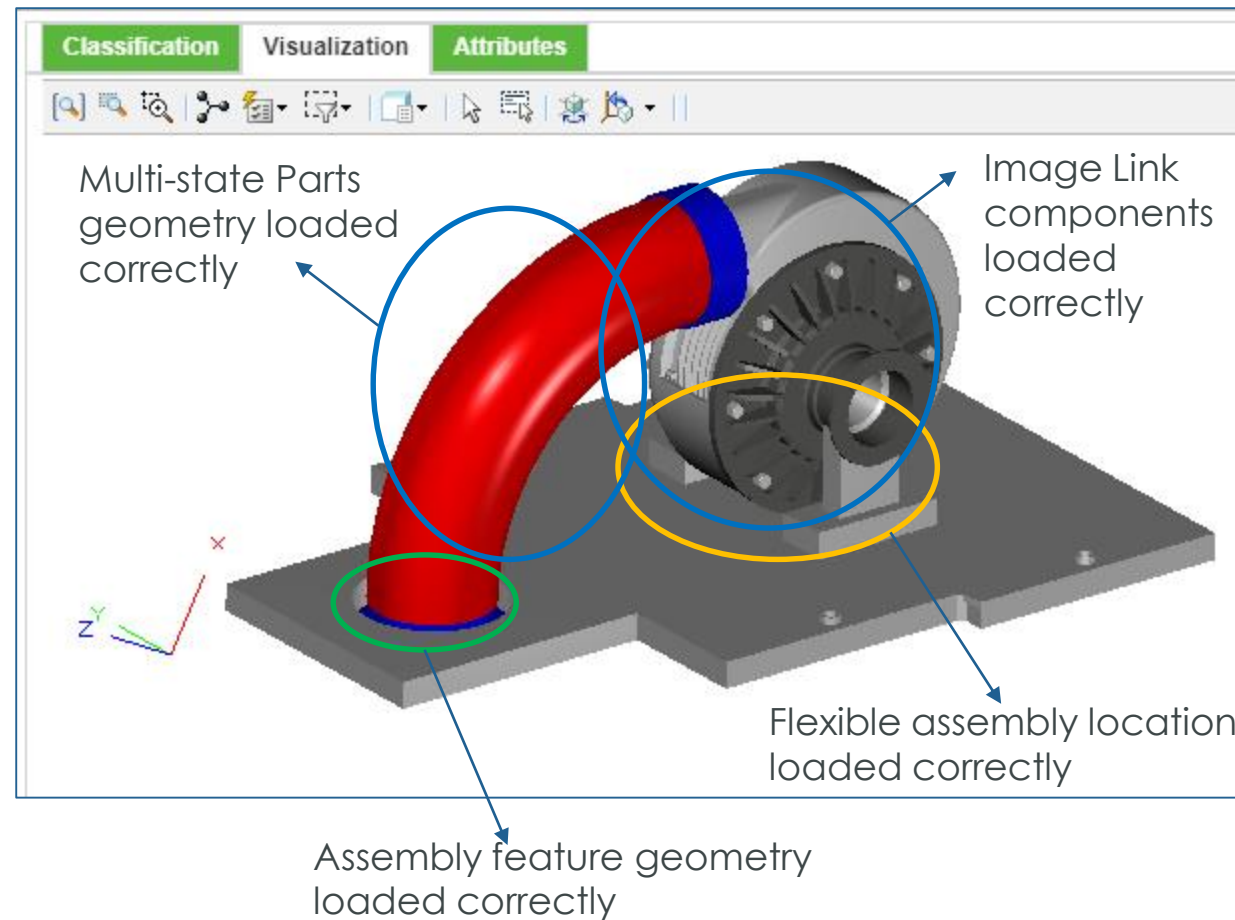


Multi-state represented parts in as-designed non-flexible state)

- Assembly Features
- CAD Represented Parts
- Flexible Assemblies

WHERE DOES THIS GET US

- To Here:



- Assembly Features
- CAD Represented Parts
- Flexible Assemblies

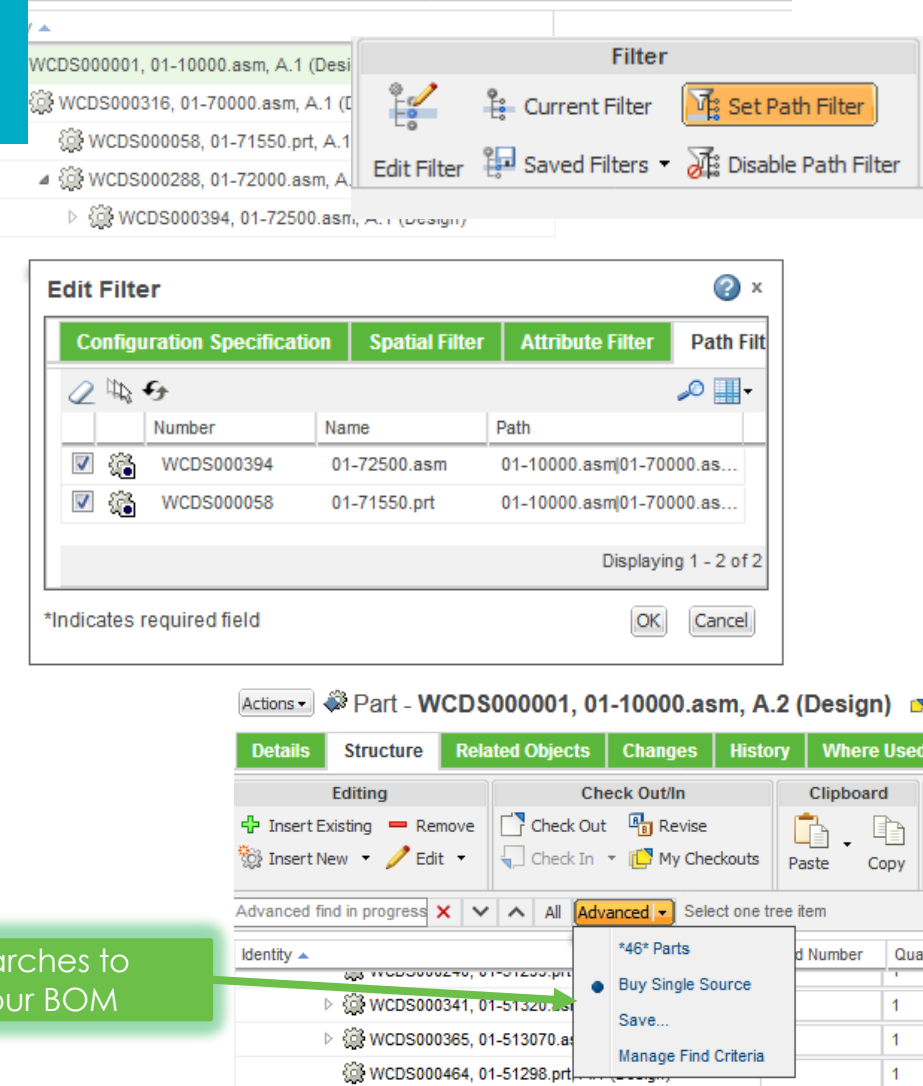
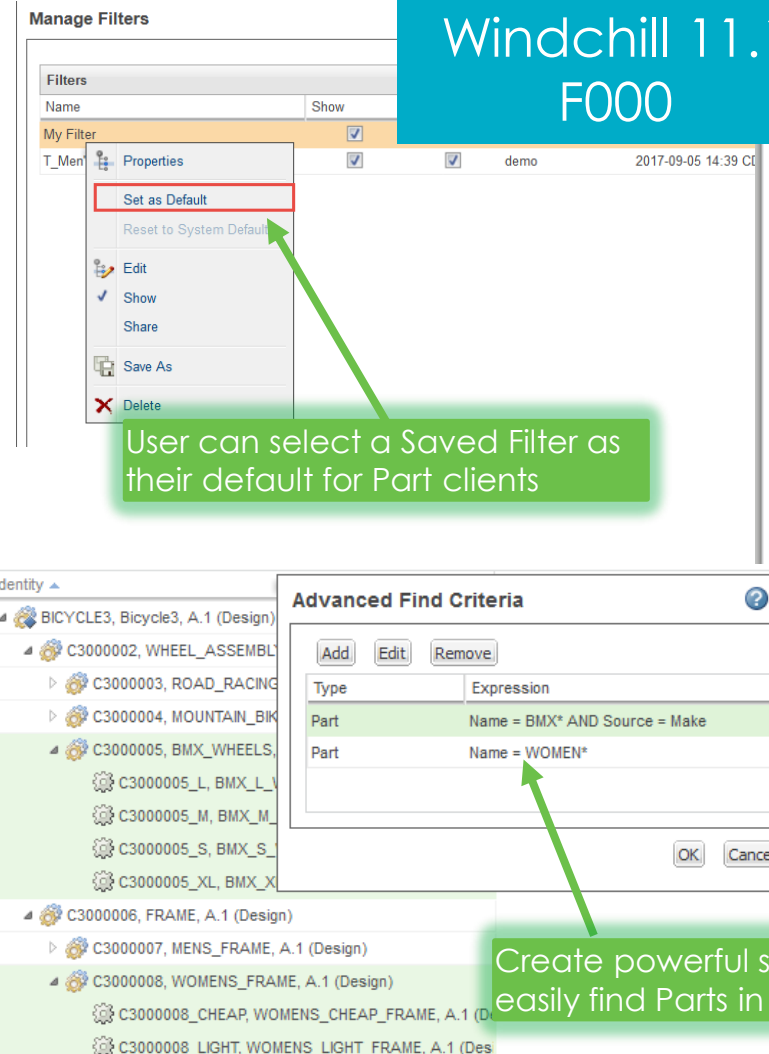
STREAMLINING WORKING WITH YOUR BOM

CONFIGURATION MANAGEMENT USABILITY



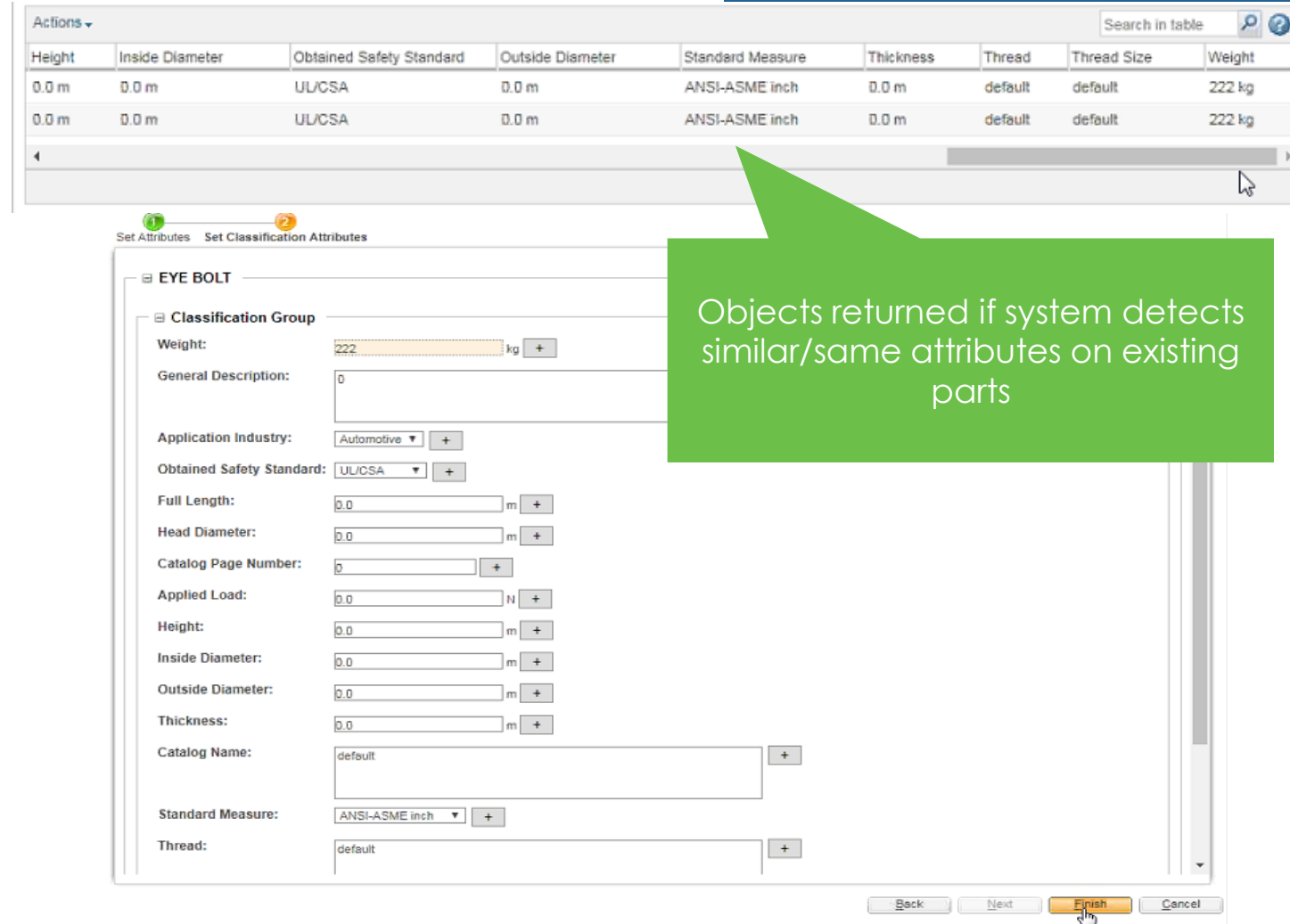
- User set Default Filter
 - Select a Saved Filter to apply as the default in Product Structure Browser (PSB)
- Advanced Find
 - Create more robust searches against Part and Usage including data that is displayed and not displayed
 - Reuse Saves Advanced Searches (**Windchill 11.1 M010**)
- Path Filter
 - Prune the structure down to branches of interest

Available as of:
Windchill 11.1
F000



Available as of:
Windchill 11.1 M010

- Attribute Editing in the Structure
 - Simplify editing for some attributes in the tree in Product Structure Browser
 - The user can edit some Part & Part Usage attributes in the tree
 - Editing will trigger a checkout
- Existing Similar Parts Notification upon Classification
 - New feature shows the user similar Parts, based on attribute(s) assigned to Classified Part
 - New Preference to enable/disable feature



The screenshot displays the Windchill configuration interface. At the top, there is a table with columns: Height, Inside Diameter, Obtained Safety Standard, Outside Diameter, Standard Measure, Thickness, Thread, Thread Size, and Weight. The table contains two rows of data, both with values 0.0 m, 0.0 m, UL/CSA, 0.0 m, ANSI-ASME inch, 0.0 m, default, default, and 222 kg. Below the table, there is a section titled 'Set Attributes' and 'Set Classification Attributes'. The 'Set Classification Attributes' section is expanded, showing a form for 'EYE BOLT'. The form includes fields for Weight (222 kg), General Description (0), Application Industry (Automotive), Obtained Safety Standard (UL/CSA), Full Length (0.0 m), Head Diameter (0.0 m), Catalog Page Number (0), Applied Load (0.0 N), Height (0.0 m), Inside Diameter (0.0 m), Outside Diameter (0.0 m), Thickness (0.0 m), Catalog Name (default), Standard Measure (ANSI-ASME inch), and Thread (default). A green callout box points to the table, stating: 'Objects returned if system detects similar/same attributes on existing parts'. At the bottom of the form, there are buttons for 'Back', 'Next', 'Finish', and 'Cancel'.

Height	Inside Diameter	Obtained Safety Standard	Outside Diameter	Standard Measure	Thickness	Thread	Thread Size	Weight
0.0 m	0.0 m	UL/CSA	0.0 m	ANSI-ASME inch	0.0 m	default	default	222 kg
0.0 m	0.0 m	UL/CSA	0.0 m	ANSI-ASME inch	0.0 m	default	default	222 kg

Objects returned if system detects similar/same attributes on existing parts

Search | Browse

Navigator

Products > New product

Actions Product - New product

Folders (1 objects)

Search in selected folder

Name

New product

Folder Contents All

Search in table

				Number	Name	Version	State	Last Modified
				0000035540	Spring 2	A.0 (Design)	In Work	2018-06-18 07:51 EDT
				0000035539	Spring	A.0 (Design)	In Work	2018-06-18 07:49 EDT
				0000035522	1	A.0 (Manufacturing)	In Work	2018-06-10 02:47 EDT
				0000035529	4.2	A.0 (Design)	In Work	2018-06-10 02:45 EDT
				0000035528	4.1	A.0 (Design)	In Work	2018-06-18 02:45 EDT
				0000035525	4	A.1 (Design)	In Work	2018-06-18 02:45 EDT
				0000035524	3	A.1 (Design)	In Work	2018-06-18 02:45 EDT
				0000035523	2	A.1 (Design)	In Work	2018-06-18 02:45 EDT
				0000035527	3.2	A.0 (Design)	In Work	2018-06-18 02:44 EDT
				0000035526	3.1	A.0 (Design)	In Work	2018-06-18 02:44 EDT
				0000034421	Part 1	A.0 (Design)	In Work	2018-05-22 05:45 EDT
				46545	Asmby 200	A.0 (Manufacturing)	In Work	2018-05-21 05:24 EDT
				10000	ASMB 10	A.0 (Manufacturing)	In Work	2018-05-21 05:06 EDT
				0000015602	01-2_crankshaft_asm	A.0 (Manufacturing)	In Work	2018-05-21 05:05 EDT
				0000015605	01-2_crankshaft_ground_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015610	connecting_rod_bolt_nut_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015604	connecting_rod_cap_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015615	connecting_rod_asm	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015609	01-2_damper_pulley_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015603	01-2_piston_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015613	01-2_piston_retainer_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT
				0000015601	connecting_rod_bushing_prt	A.0 (Design)	In Work	2018-05-21 05:04 EDT

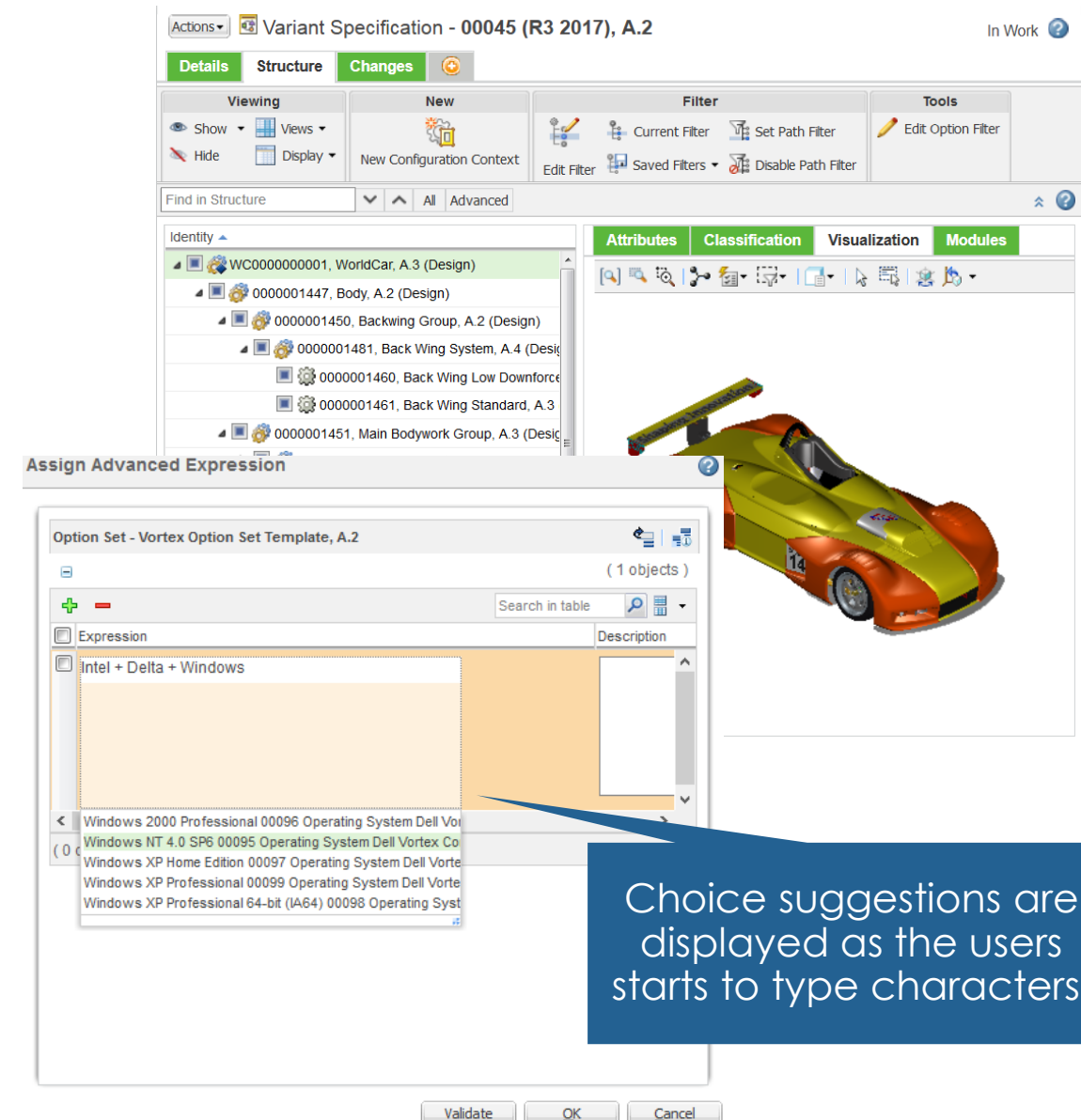
(0 objects selected)

PLATFORM STRUCTURES ENHANCEMENTS



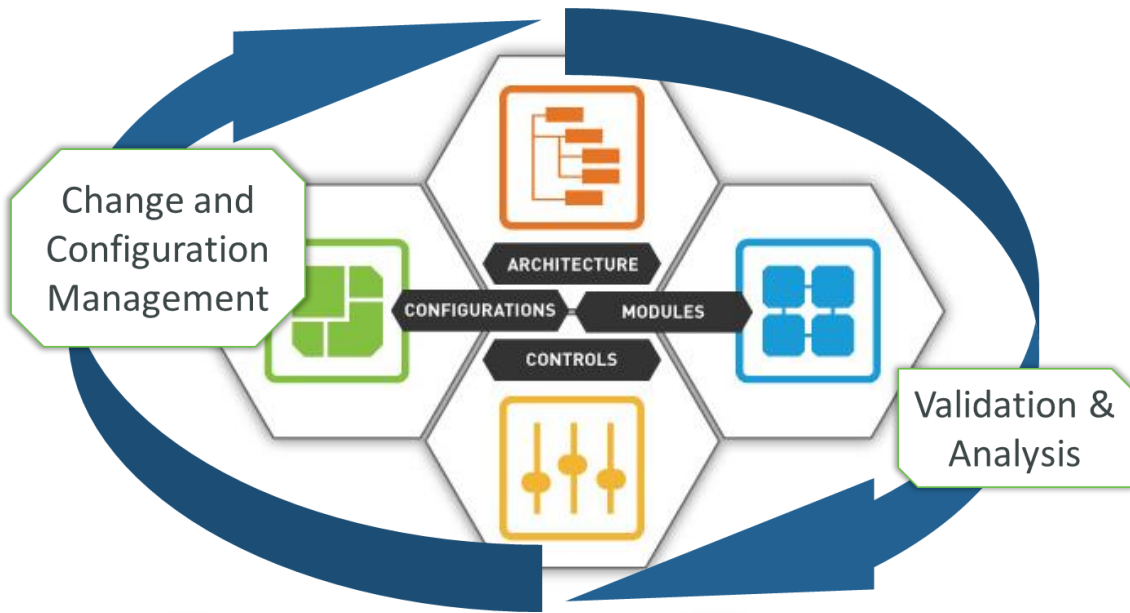
- Improve usability of Variant Specification
 - Show filtered Structure
 - Visualization Tab displays the variant
 - Understand whether modules are driven by Assigned Expression or Manual Selection (Product Family only)
- Authoring Auto-suggest *
 - When entering Expressions, Rules and Aliases users can leverage Auto-suggest to speed up entry of Choice values
- Option Pool / Option Set experience *
 - Improved control of the display of Option Pool and Set with configurable table views
 - Use Export List to file to generate Excel, PDF, HTML and more

Available as of:
Windchill 11.1
M020



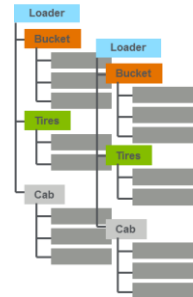
PRODUCT FAMILY MANAGEMENT WITH PLATFORM STRUCTURES

DEVELOPING PRODUCT PLATFORMS WITH PTC WINDCHILL



PTC's solution manages modular platform "elements"

PLATFORM ARCHITECTURE



MODULES



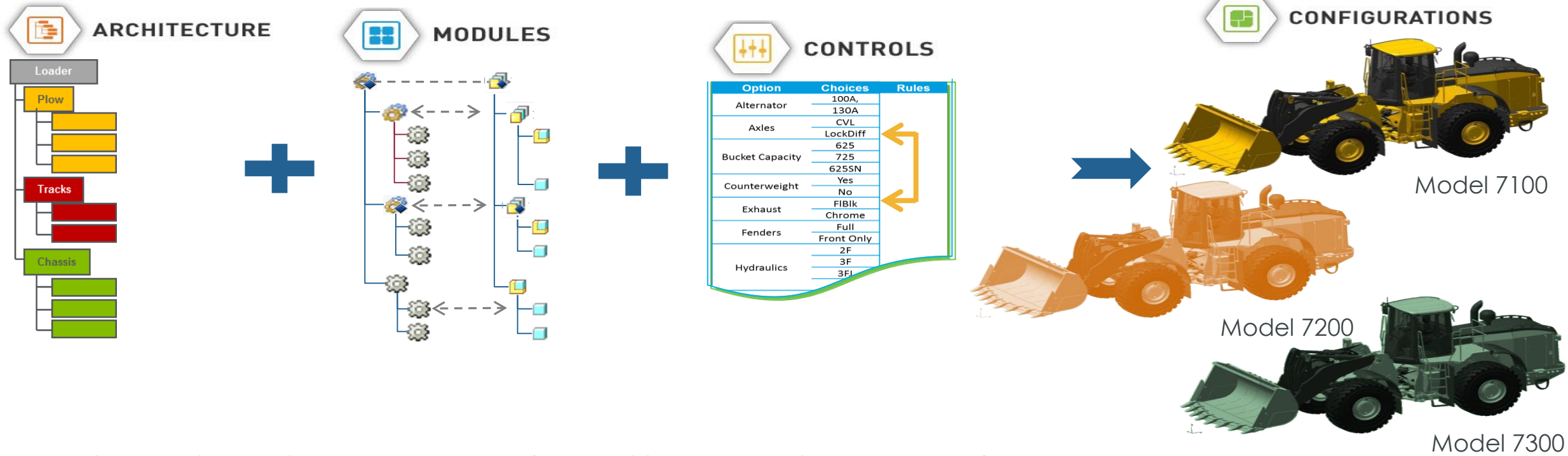
CONTROLS

Option	Choices
Alternator	100A, 130A
Axles	CVL, LockDiff
Bucket Capacity	625, 725, 625SN
Counterweight	Yes, No
Exhaust	FIBik, Chrome
Fenders	Full, Front Only
Hydraulics	2F, 3F, 3FJ, FTC
Language	EN, FR, SP, RU
Mirrors	Std, Htd
Tire	29RFS, 875/65R
TPMS	TPY, TPN
Transmission	4SP, 5SP

CONFIGURATIONS



DEVELOPING THE PRODUCT PLATFORM

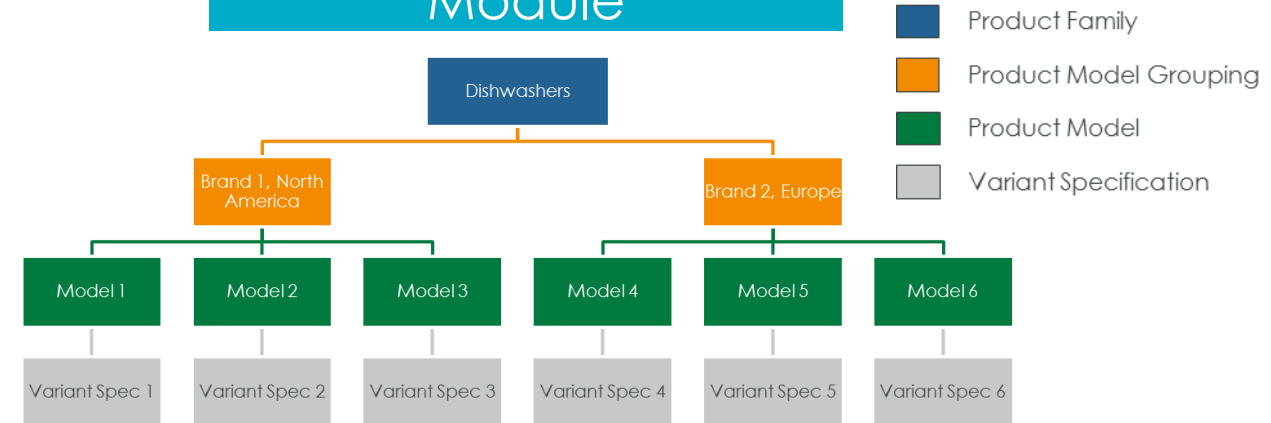


- Windchill delivers a powerful ability to deliver a Platform based upon product modularity to improve reuse and address diverse market needs
- Use to validate a broader range of designs while improving collaboration with manufacturing and service.
- But....what if I want to work with and see a family of products **together**?

PRODUCT FAMILY MANAGEMENT

- Foundation based upon Configurable Structure Side-by-side view & define features for a family
- Enable Product Family Definition
 - Formal WC objects for defining Digital Families
 - Enables intuitive navigation
 - Easy to setup & maintain
 - Enterprise-wide definition
- Product Family Matrix View
 - Simplify view and management of the Product Configurations within a Family
 - Define configurations using Assigned Expression or by using Manual Selection
 - Delivers a Side-by-side view of many configurations

Windchill 11.1 F000 Platform Structures Module

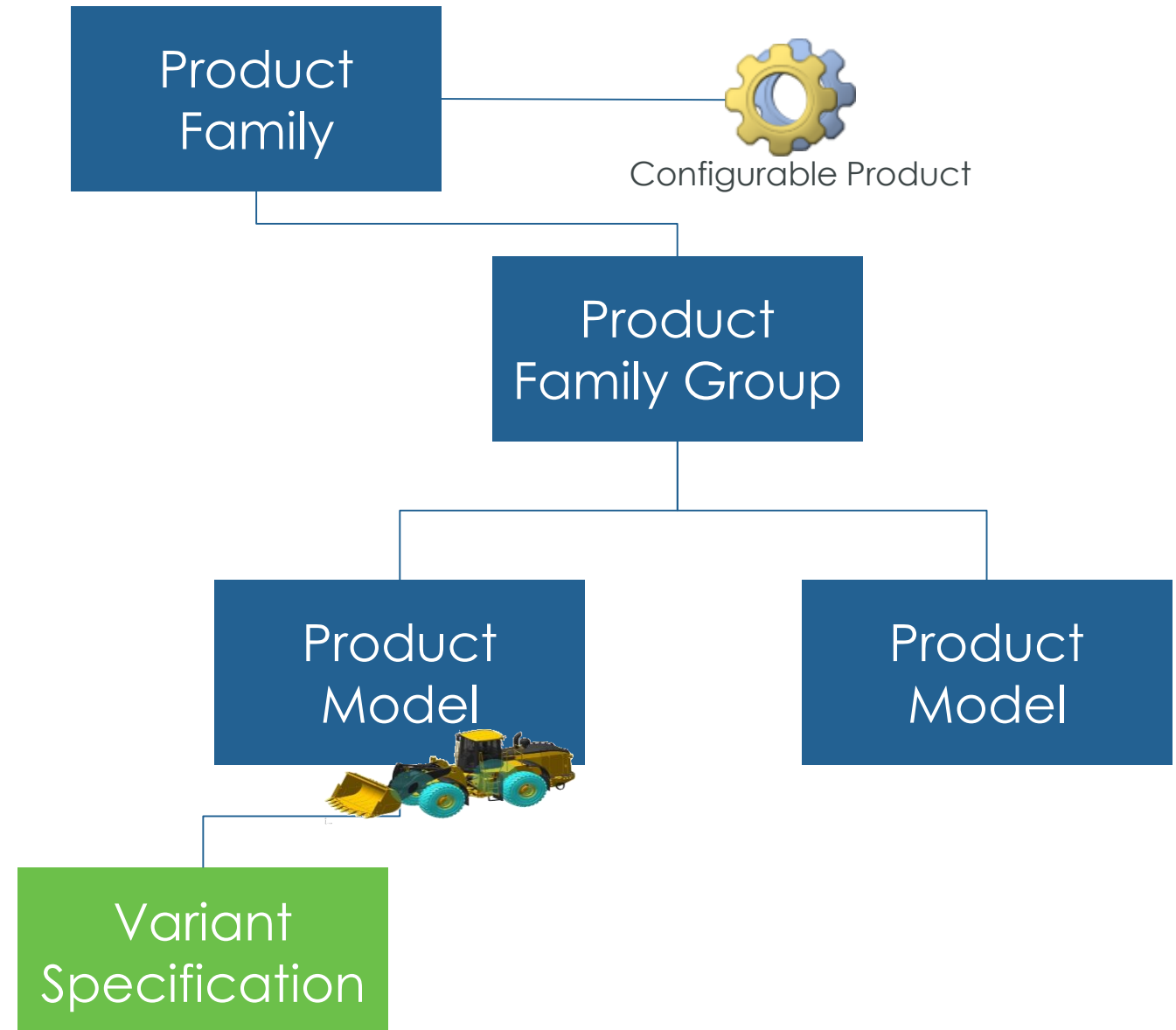


The screenshot shows the 'Product Family Matrix View' in Windchill. The left pane displays the 'Dishwasher Product Family' structure with various models and variants. The right pane shows a matrix of configurations for different product models, with columns representing different models and rows representing different configurations. The matrix cells contain checkmarks indicating the presence of specific features or configurations.

Configuration	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
0000000001, B...						
0000000002, B...						
0000000003, HI...						
0000000004, HI...						
0000000005, HI...						
0000000006, V...						
00021 (BMW)...						
00022 (BMW)...						
00023 (HWH)...						
00024 (HB)...						
00025 (HS)...						
00026 (VW)...						
0000000005, DISHWASHER CONFIGURABLE, A.2 (Design)						
0000000006, FRAME, A.3 (Design)						
0000000102, FRAME, A.1 (Design)						
0000000007, INSULATION PACKAGE, A.5 (Design)						
0000000105, INSULATION PACKAGE, 50db, A.1 (Design)						
0000000106, INSULATION PACKAGE, 46db, A.1 (Design)						
0000000107, INSULATION PACKAGE, 38db, A.1 (Design)						
0000000008, DOOR, A.5 (Design)						
0000000113, DOOR, WHITE, A.1 (Design)						
0000000114, DOOR, BLACK, A.1 (Design)						
0000000115, DOOR, STAINLESS, A.1 (Design)						
0000000009, HANDLE, A.5 (Design)						
0000000110, HANDLE, WHITE, A.3 (Design)						
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)						
0000000111, HANDLE, BLACK, A.3 (Design)						
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)						
0000000112, HANDLE, STAINLESS, A.2 (Design)						
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)						
0000000090, CONTROLLER, A.6 (Design)						
0000000042, CABLE, FLAT, 25 CONDUCTOR, A.1 (Design)						
0000000097, CONTROLLER, BASIC, A.1 (Design)						
0000000098, CONTROLLER, ADVANCED, A.1 (Design)						
0000000099, CONTROLLER, ADVANCED, WIFI, A.1 (Design)						
0000000091, USER INTERFACE, A.5 (Design)						

PRODUCT FAMILY MANAGEMENT STRUCTURE

- Easily define a family of products or SKUs so they can be easily displayed
- Organize them as makes sense for your business needs
- Related to the Configurable Product to define a platform of solutions that can be evolved and managed together



Actions Part - 0000000085, DISHWASHER CONFIGURABLE, A.2 (Design)

Details Structure Related Objects Changes History Where Used Traceability AML/AVL Viz

Editing
 + Insert Existing Remove
 + Insert New Edit
 Check Out/In
 Check Out Revise
 Check In My Checkouts
 Clip Paste

Find in Structure All Advanced

Identity

0000000085, DISHWASHER CONFIGURABLE, A.2 (Design)	
0000000086, FRAME, A.3 (Design)	
0000000102, FRAME, A.1 (Design)	FRAME = "DW CORE FRAME";
0000000087, INSULATION PACKAGE, A.5 (Design)	
0000000105, INSULATION PACKAGE, 50db, A.1 (Design)	INSULATION LEVEL = "50dB";
0000000106, INSULATION PACKAGE, 46db, A.1 (Design)	INSULATION LEVEL = "46dB";
0000000107, INSULATION PACKAGE, 38db, A.1 (Design)	INSULATION LEVEL = "38dB";
0000000088, DOOR, A.5 (Design)	
0000000113, DOOR, WHITE, A.1 (Design)	EXTERIOR = "WHITE";
0000000114, DOOR, BLACK, A.1 (Design)	EXTERIOR = "BLACK";
0000000115, DOOR, STAINLESS, A.1 (Design)	EXTERIOR = "STAINLESS";
0000000089, HANDLE, A.5 (Design)	
0000000110, HANDLE, WHITE, A.3 (Design)	EXTERIOR = "WHITE";
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)	
0000000111, HANDLE, BLACK, A.3 (Design)	EXTERIOR = "BLACK";
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)	
0000000112, HANDLE, STAINLESS, A.2 (Design)	EXTERIOR = "STAINLESS";
0000000041, BOLT, PAN HEAD, 6-1.0x25mm, A.1 (Design)	
0000000090, CONTROLLER, A.6 (Design)	
0000000042, CABLE, FLAT, 25 CONDUCTOR, A.1 (Design)	
0000000097, CONTROLLER, BASIC, A.1 (Design)	CONTROLLER = "BASIC";

Product Families start with Configurable Product Structures

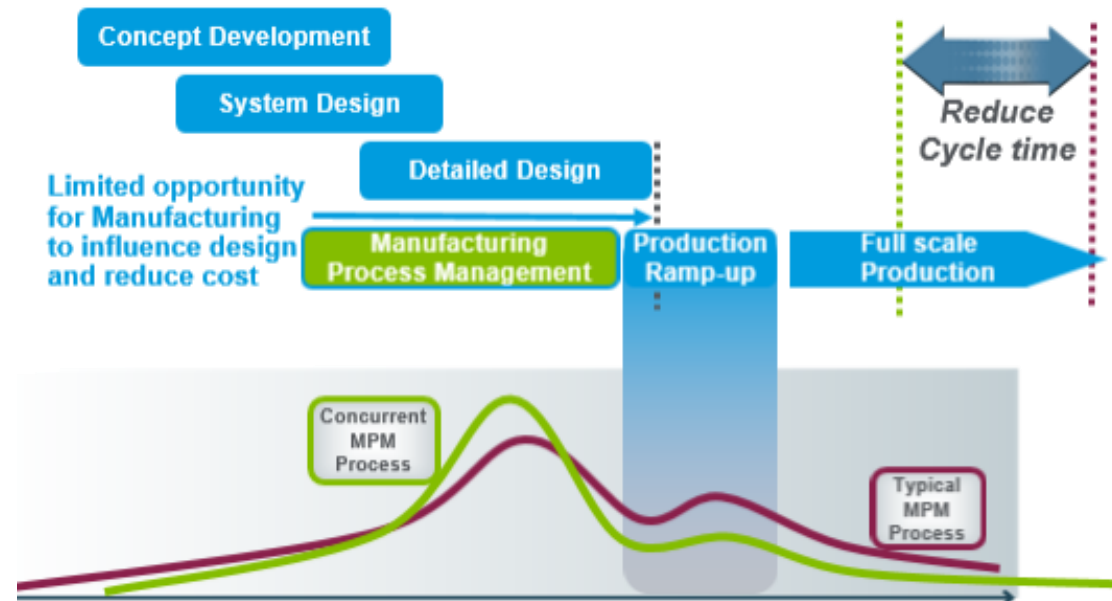
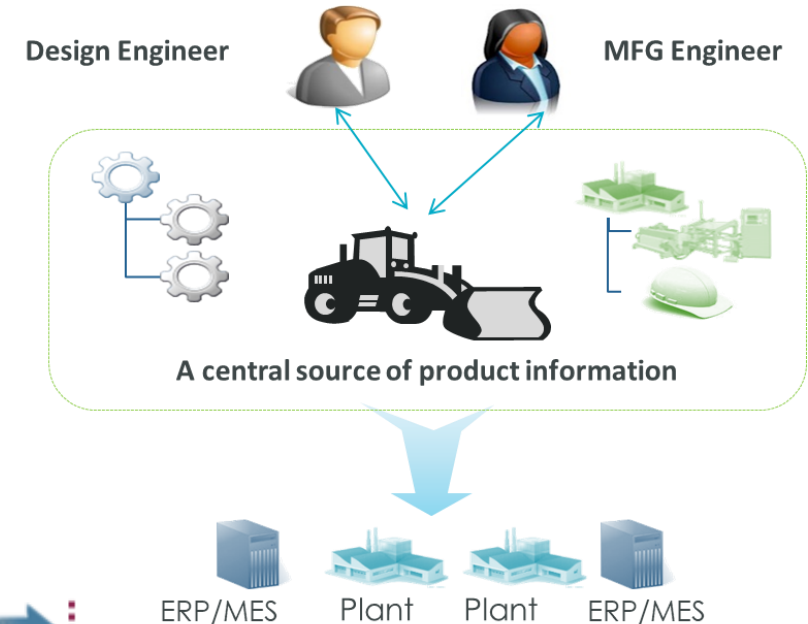
Part Attributes

Number: 0000000085
 Name: DISHWASHER CON
 Version: A.2 (Design)
 State: In Work - Released
 Status: Checked in
 Modified By: Site, Administrator
 Last Modified: 2018-06-13 19:02 C
 Classification:
 Material Class:
 Material Name:

MANUFACTURING BOM TRANSFORMATION – EXTENDING THE VALUE

Windchill BOM Transformation

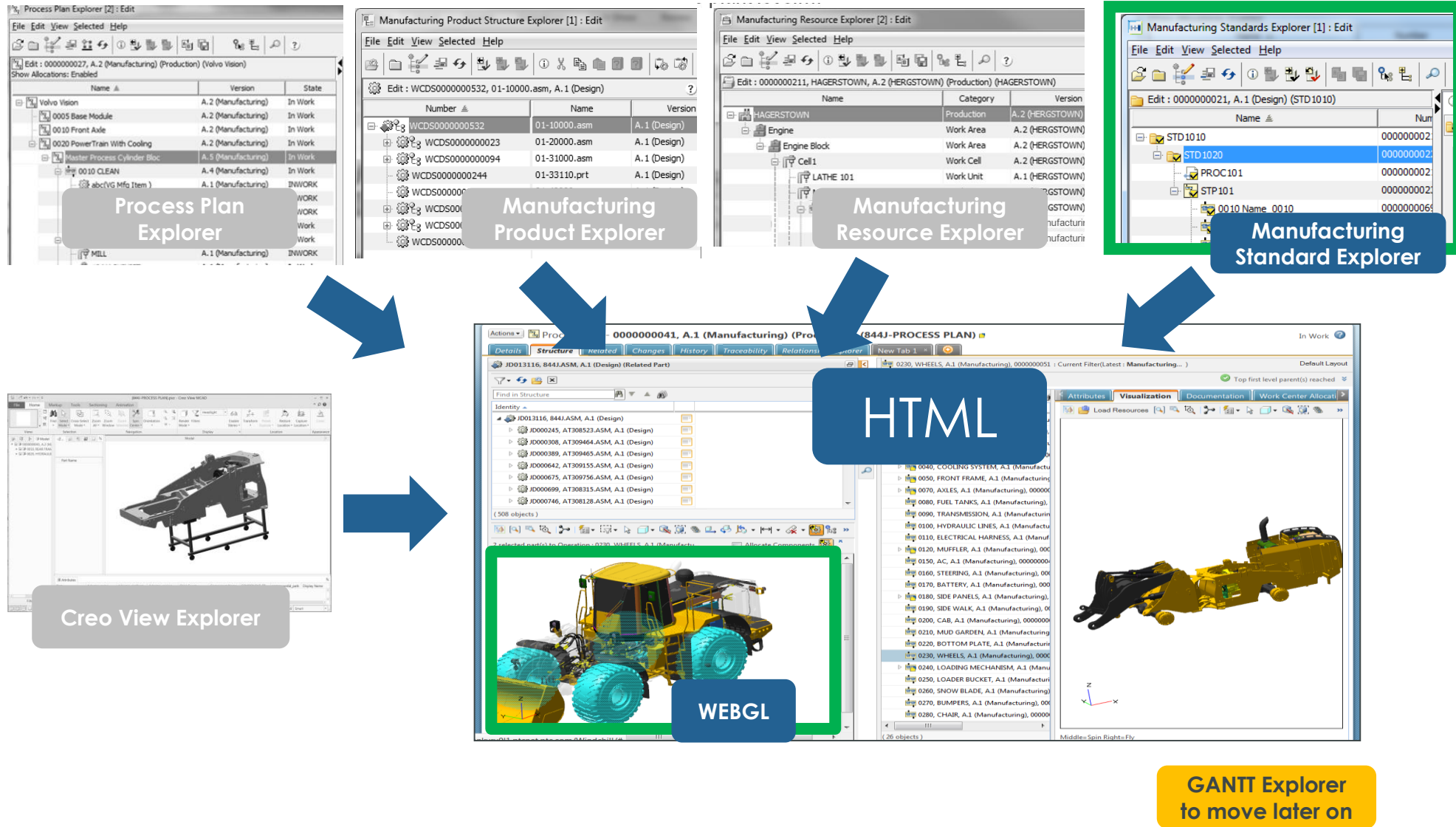
- Role based views of product and process information that update to remain in-synch
- Streamline change across engineering and manufacturing
- Associative connection eBOM, mBOM and Process Plans



Reduce Cost of Change
Reduce Manufacturing Cost

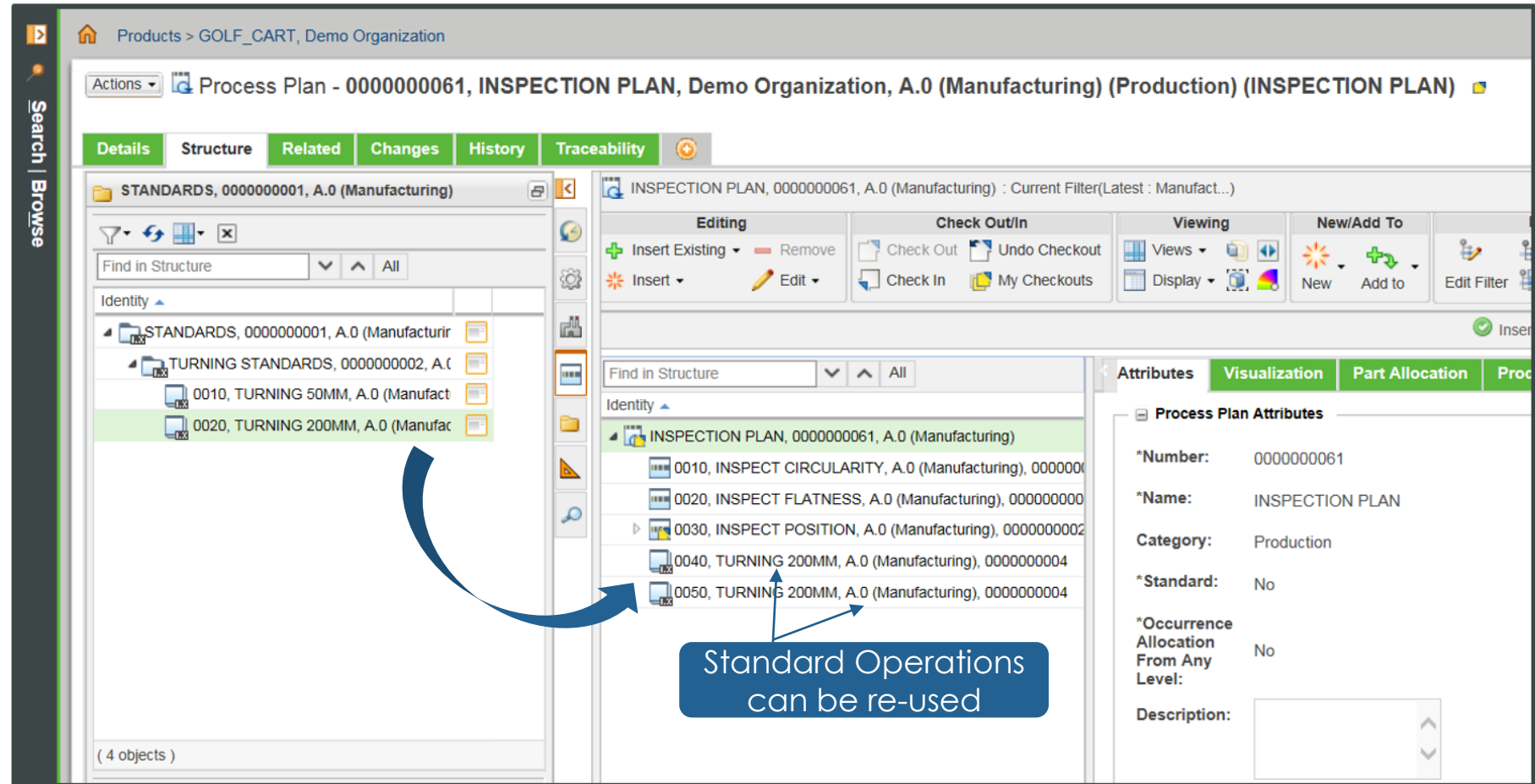
“FINISH” JAVA APPLET MOVE TO HTML

- Usability and Performance over WAN
- Compatible with modern browser (No Plugin)
- Embedded 3D



STANDARD OPERATIONS

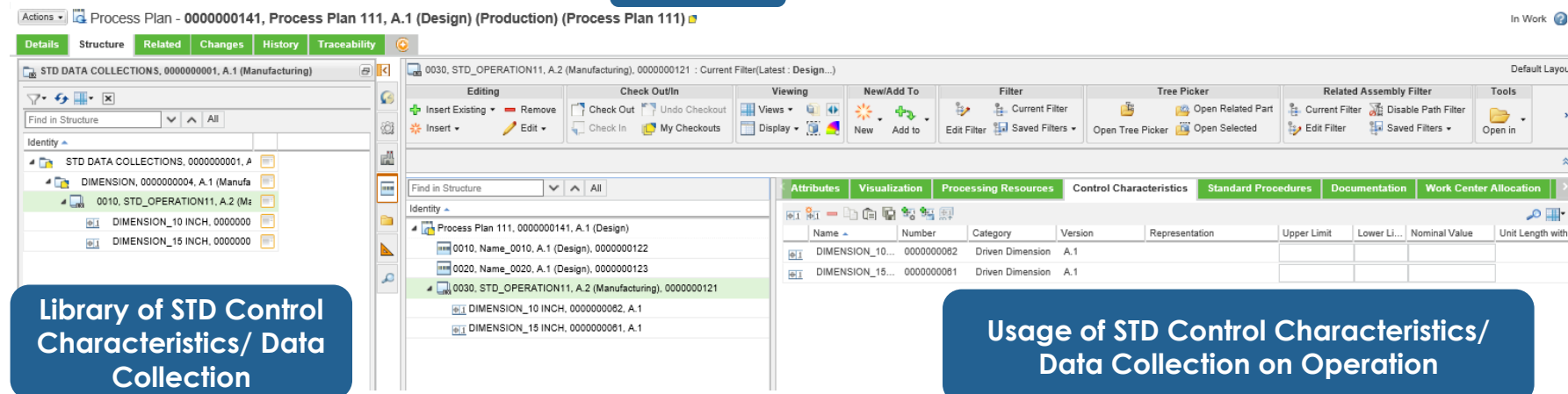
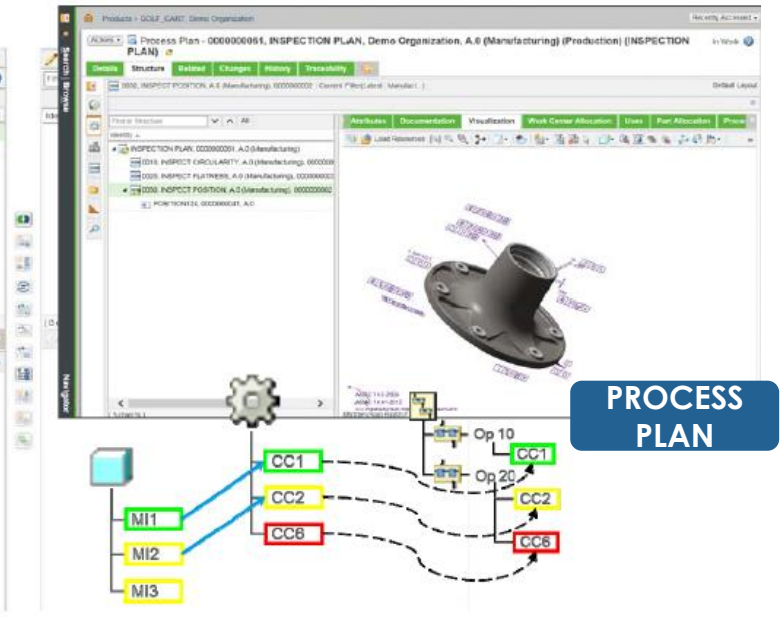
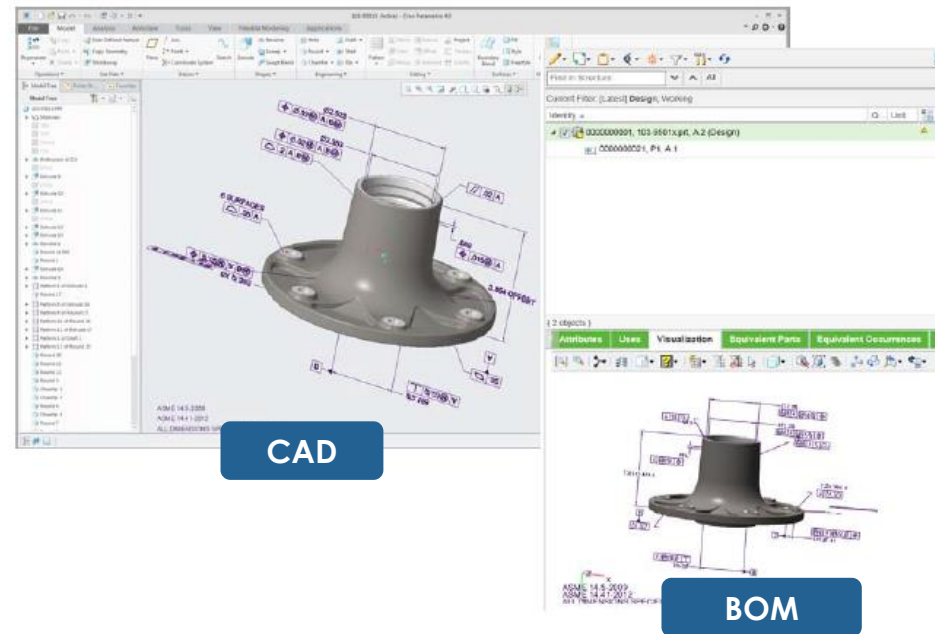
- Now you can re-use same Standard Operations multiple times
- Organize the Standard Operations in Group hierarchy
- Duplicate regular Operations as Standard Operations



CONTROL CHARACTERISTICS/ DATA COLLECTIONS

CAPABILITIES

- Publish CAD annotations to Windchill – PMI (GDT & FTA) and define 3D Control Characteristics
- Define none 3D control characteristics (e.g Process or Note) in Windchill MPMLink
- Define libraries of Standard Control Characteristics
- Allocate control characteristics to process plan operations from Parts or EPMDoc.
- Allow provision of Data collections and Buy-Off



Part - JD_004319, AT30847...

mon-canadians.ptcnet.ptc.com:1800/Windchill/app/#ptc1/tcomp/infoPage?oid=VR%3Awt.part.WTPart%3A539737&u8=1

Search

Problem Report, Chang...

Search ...

Quick Links

PTC Windchill

demo

Products > 844

Recently Accessed

Part - JD_004319, AT308471_CP.ASM, A.1 (Design)

In Work

DetailsStructureRelated ObjectsChangesHistoryWhere UsedTraceabilityRelationship Explorer

Editing

Check Out/In

Clipboard

Viewing

New/Add To

Filter

Tools

Reports

Find in Structure

Identity

AttributesVisualizationUsesOccurrencesSupersedes

JD_004319, AT308471_CP.ASM, A.1 (Design)

JD_002751, AT211415.ASM, A.1 (Design)

JD_002760, AT309322.ASM, A.1 (Design)

JD_002789, AT300525.ASM, A.1 (Design)

JD_002798, AT206644.ASM, A.1 (Design)

JD_002804, AT202727.ASM, A.1 (Design)

JD_002865, AT309502.ASM, A.1 (Design)

JD_002882, AT311003.ASM, A.1 (Design)

JD_002899, AT308543.ASM, A.1 (Design)

JD_002911, AT311546.ASM, A.1 (Design)

JD_002933, AT227989.ASM, A.1 (Design)

JD_002943, AT228403.ASM, A.1 (Design)

JD_003115, AT311112.ASM, A.1 (Design)

JD_003121, AT202774.ASM, A.1 (Design)

JD_003152, DASH_BOARD.ASM, A.1 (Design)

JD_003156, AT327448.ASM, A.1 (Design)

JD_003163, AT223312.ASM, A.1 (Design)

JD_003420, AT308542.ASM, A.1 (Design)

JD_003455, AT311467.ASM, A.1 (Design)

JD_003459, AT223320.ASM, A.1 (Design)

JD_003627, AT228251.ASM, A.1 (Design)

JD_003635, AT224939.ASM, A.1 (Design)

JD_003641, AT223307.ASM, A.1 (Design)

JD_003652, AT227790.ASM, A.1 (Design)

JD_003677, AT227966.ASM, A.1 (Design)

JD_003681, AT309712.ASM, A.1 (Design)

JD_003820, AT306824.ASM, A.2 (Design)

3D Model View

Pause (Shift+F9)

Navigation

(35 objects)

PTC BOM SOLUTION



✓ Correct, Complete,
Reliable BOM Information

✓ Better Decision
Making

✓ Improved Process
Efficiency

✓ Fewer
Errors





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