



DIGITAL TRANSFORMS PHYSICAL

WINDCHILL MODELER 9.6 – WHAT'S NEW

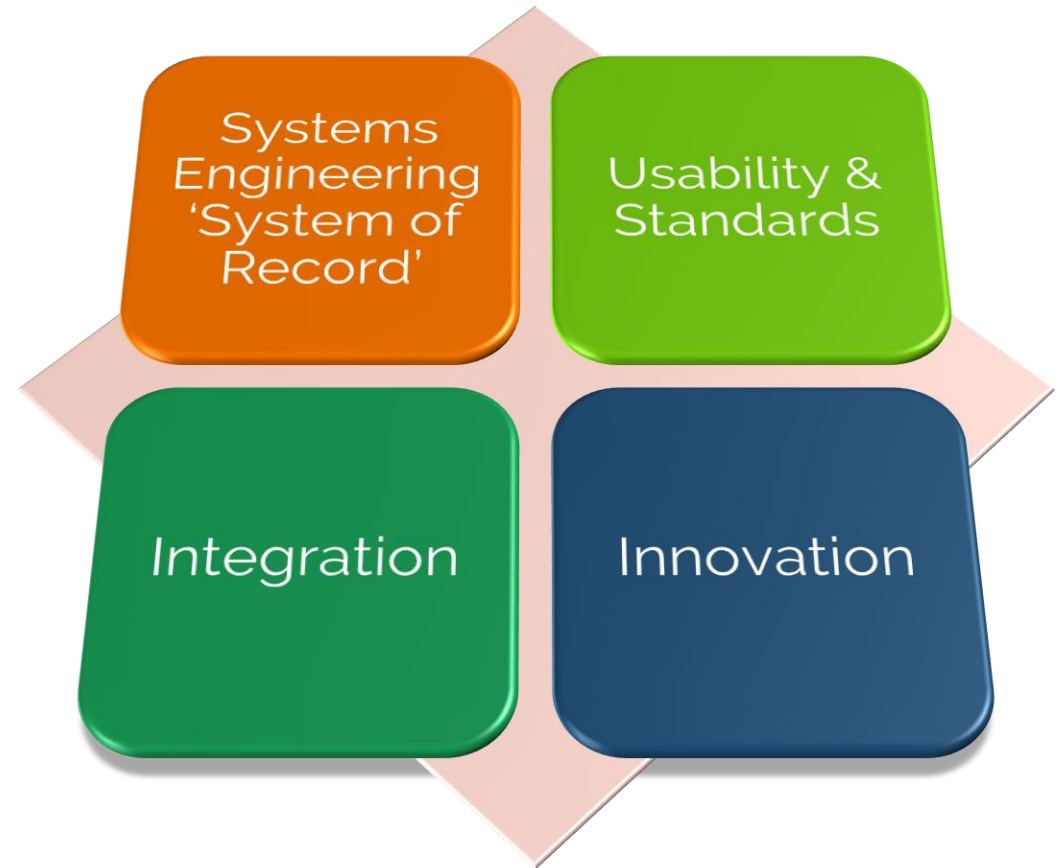
Patrick Ollerton
Product Manager



January 2023

WINDCHILL MODELER – FOUR STRATEGIC OBJECTIVES

- Systems and Software Engineering 'System of Record'
 - Pervasive, scalable & multi-user
 - Enterprise deployment
- Stunning user experience
 - Contemporary and performant
 - Standards-based Modeling
- Integration
 - Digital thread, enabled with OSLC
 - Automated Code Synchronization (ACS)
 - Co-simulation with 3rd Parties
- with Continual Innovation
 - Product Line Engineering (Variability)
 - Modular System of Systems (SoS)
 - Model Driven IoT...



windchill® modeler - PRODUCT ROADMAP



windchill modeler	9.6	10.0										10.1							10.2			
2023	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	2024	Jan	Feb	Mar	April	May	June	July	Aug	Sep

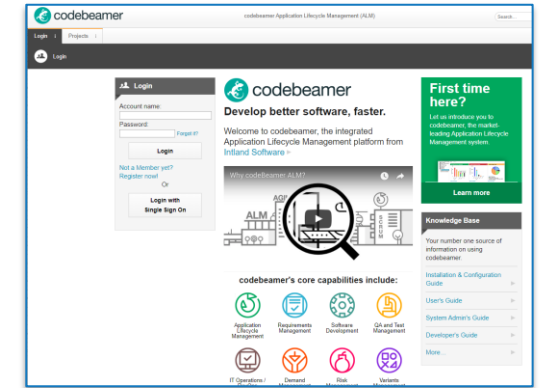
windchill modeler Releases	Themes
windchill modeler 9.6 – Jan 2023	OSLC for Codebeamer, Usability and Enterprise Deployment
windchill modeler 10 – April 2023	SysML 2.0, OSLC Usability
windchill modeler 10.1 – Dec 2023	SysML 2.0, OSLC, RTF, Software Engineering
windchill modeler 10.2 – June 2024	Usability, Model Management, Reviewer, Advanced PLE, Test Management
windchill modeler 10.3 – Dec 2024	Usability, Web Interface, Model Management, Windchill PLM Integration, Simulation
windchill modeler 10.4 – June 2025	OSLC, Windchill PLM Integration, REST, Creo Integration

WINDCHILL MODELER 9.6

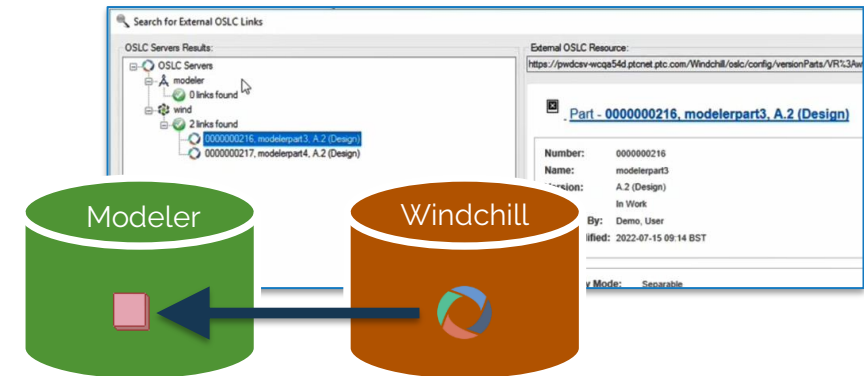
OSLC for Codebeamer, Usability and Enterprise Deployment

- OSLC for Codebeamer
 - OSLC Client for Codebeamer requirements traceability
- OSLC Usability
 - Reverse lookup from Windchill Modeler into Windchill PLM
 - Query for Windchill RV&S requirements and documents
 - View in Native System links to refreshed Windchill RV&S web UI
 - OSLC preview pages for Siemens Polarion
- Enterprise deployment
 - Support for IBM DOORS distributed deployments and Jazz Auth Server

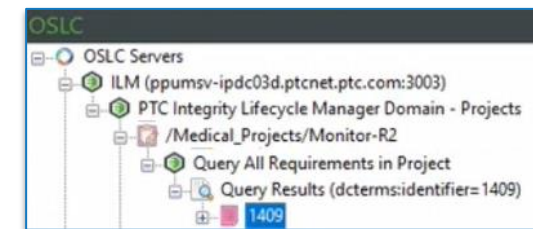
Codebeamer



Reverse Lookup with Windchill PLM



Query for Windchill RV&S data



Planned for Jan 2023



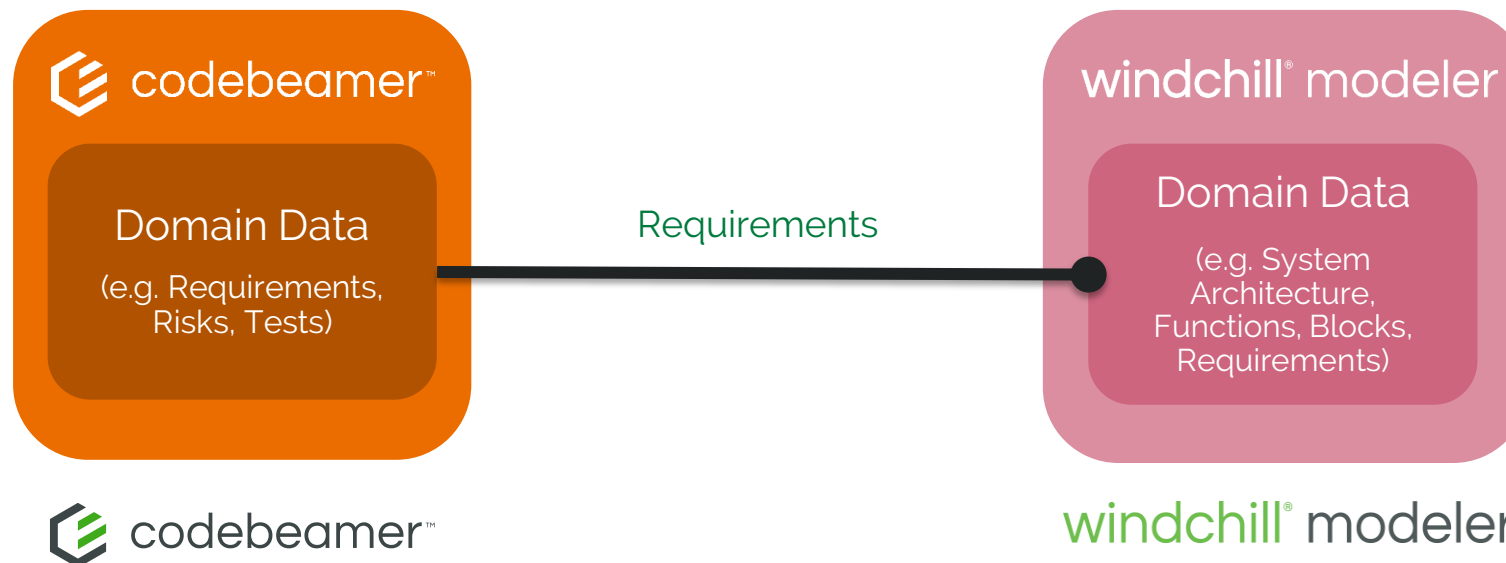
OSLC FOR CODEBEAMER

OSLC USABILITY

OSLC ENTERPRISE DEPLOYMENT

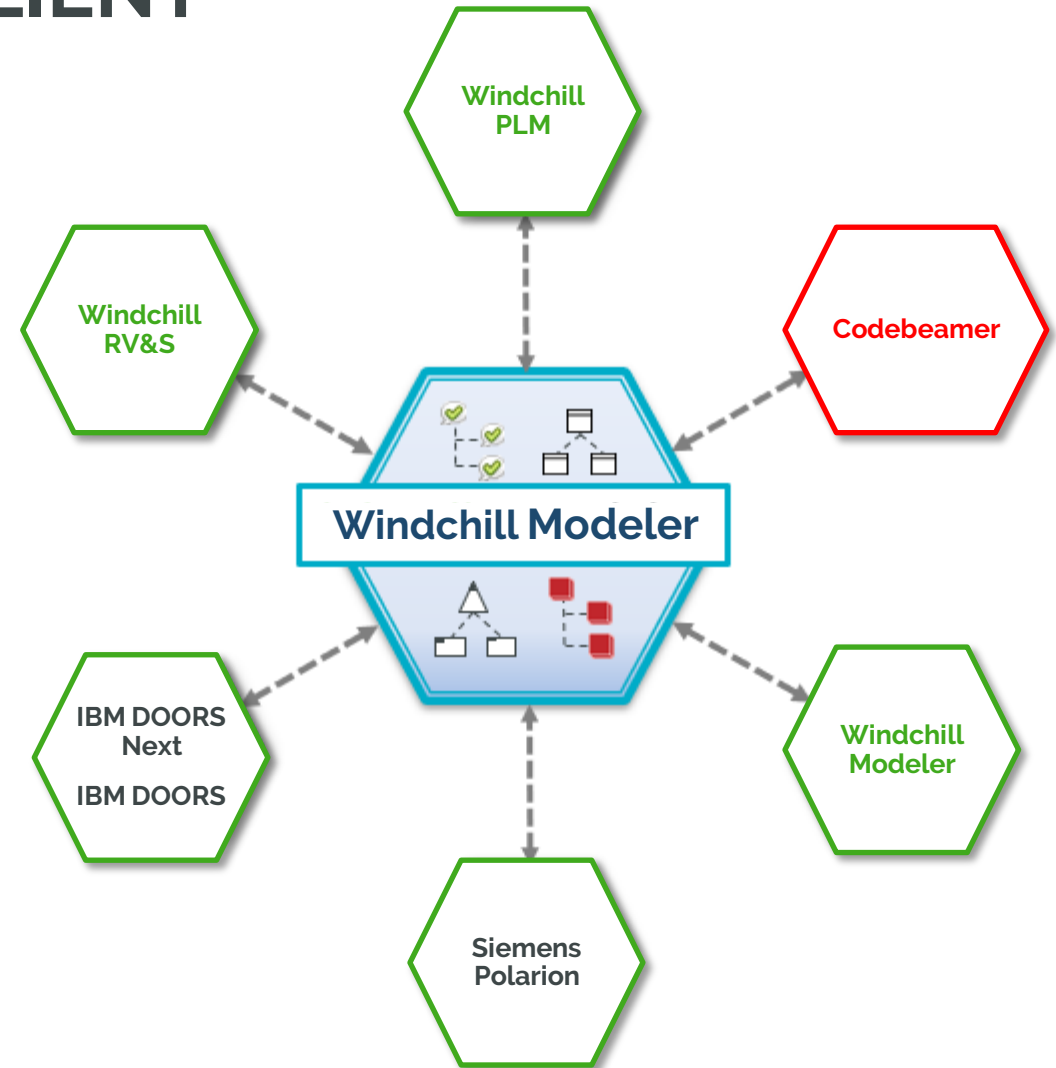
INTEGRATION WITH CODEBEAMER

- Windchill Modeler OSLC client is now able to connect to Codebeamer
 - Enables software and system models to be linked to Codebeamer requirements to capture design traceability
 - Understand design dependencies across engineering disciplines
 - Understand the impact of design changes



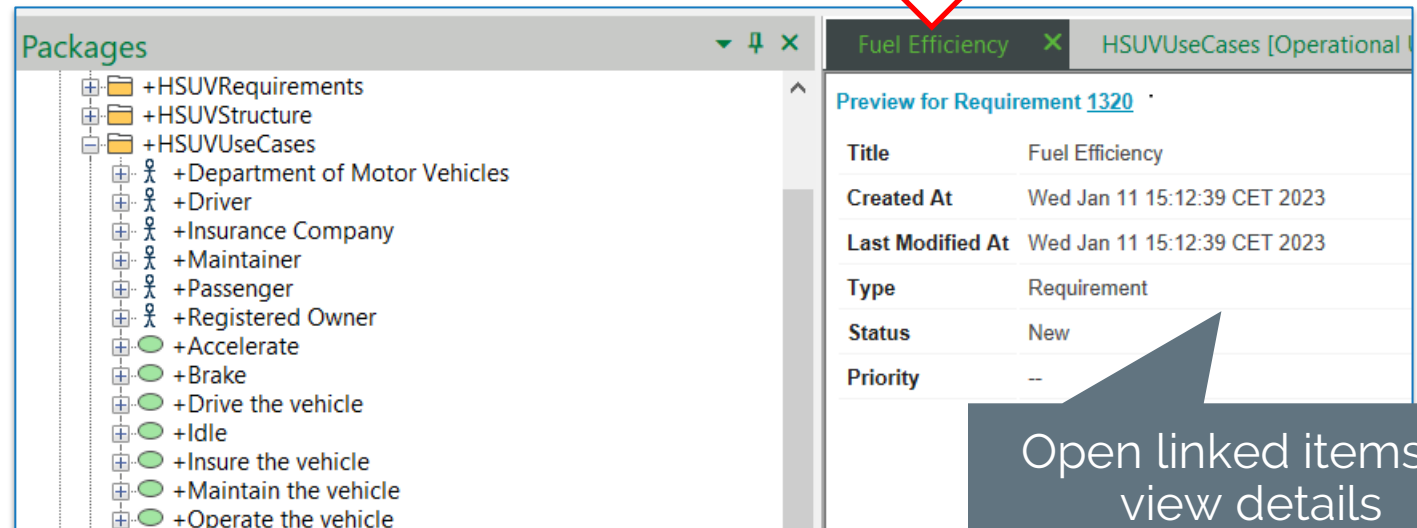
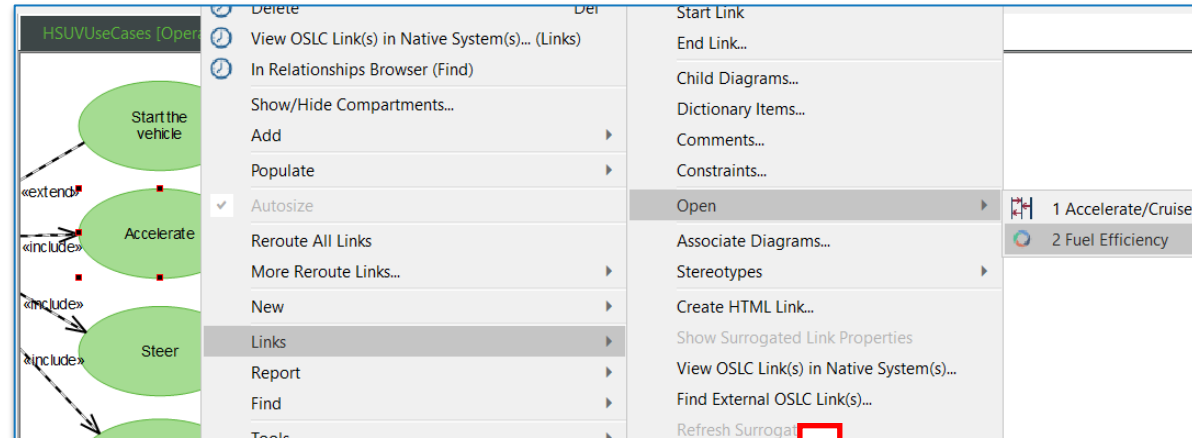
WINDCHILL MODELER - OSLC CLIENT

- Windchill Modeler can access resources from OSLC compliant systems-of-record
 - View remote resources
 - Create, view and manage OSLC Links and Surrogates
- Full lifecycle traceability
- Design change impact analysis
- 'Link not Synch'
 - Remote systems are accessed live
 - No data duplication



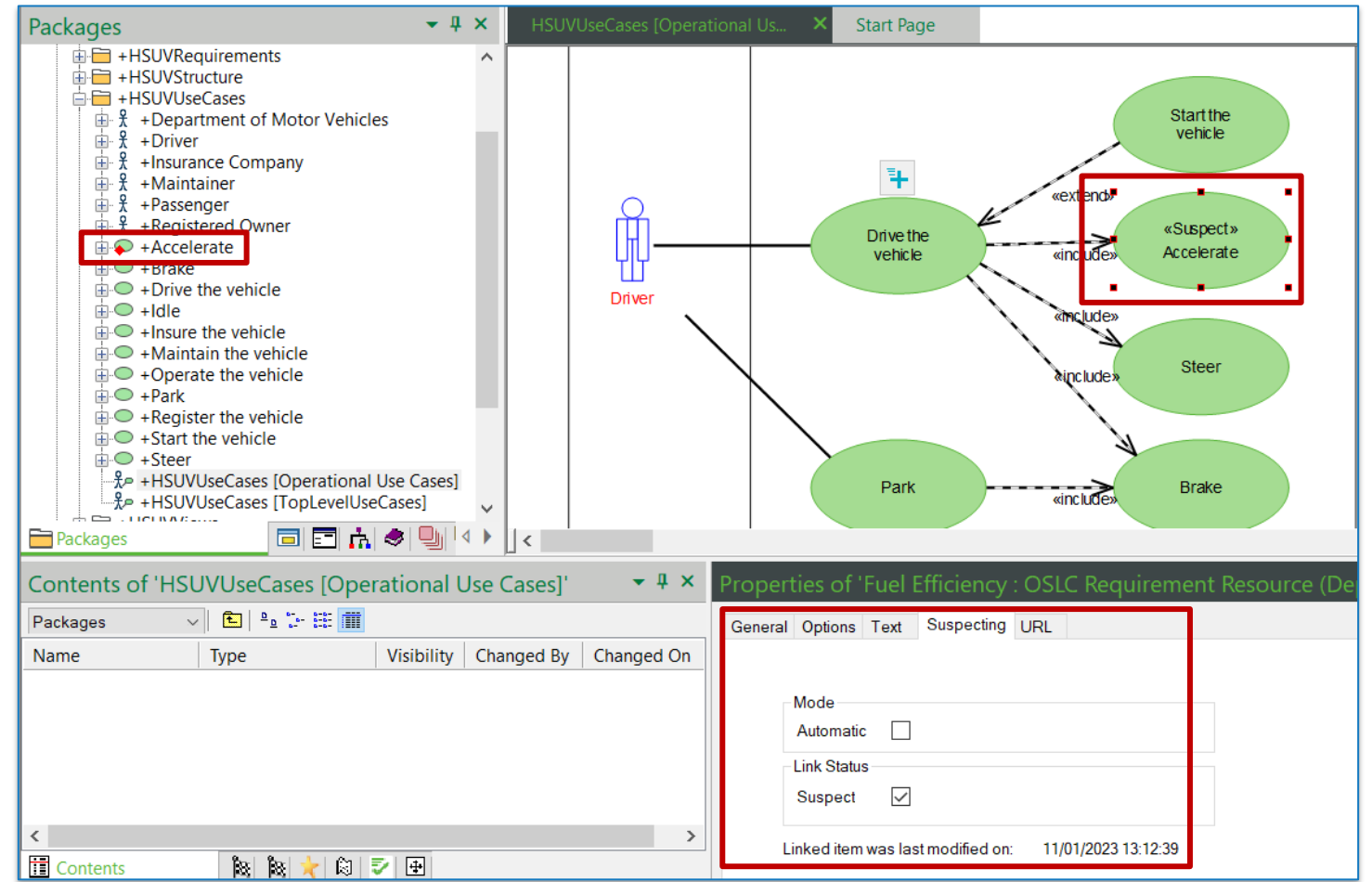
OSLC INTEGRATION WITH CODEBEAMER

- Easily access and manage links
- View properties for linked requirements
- Navigate to linked requirement in Codebeamer



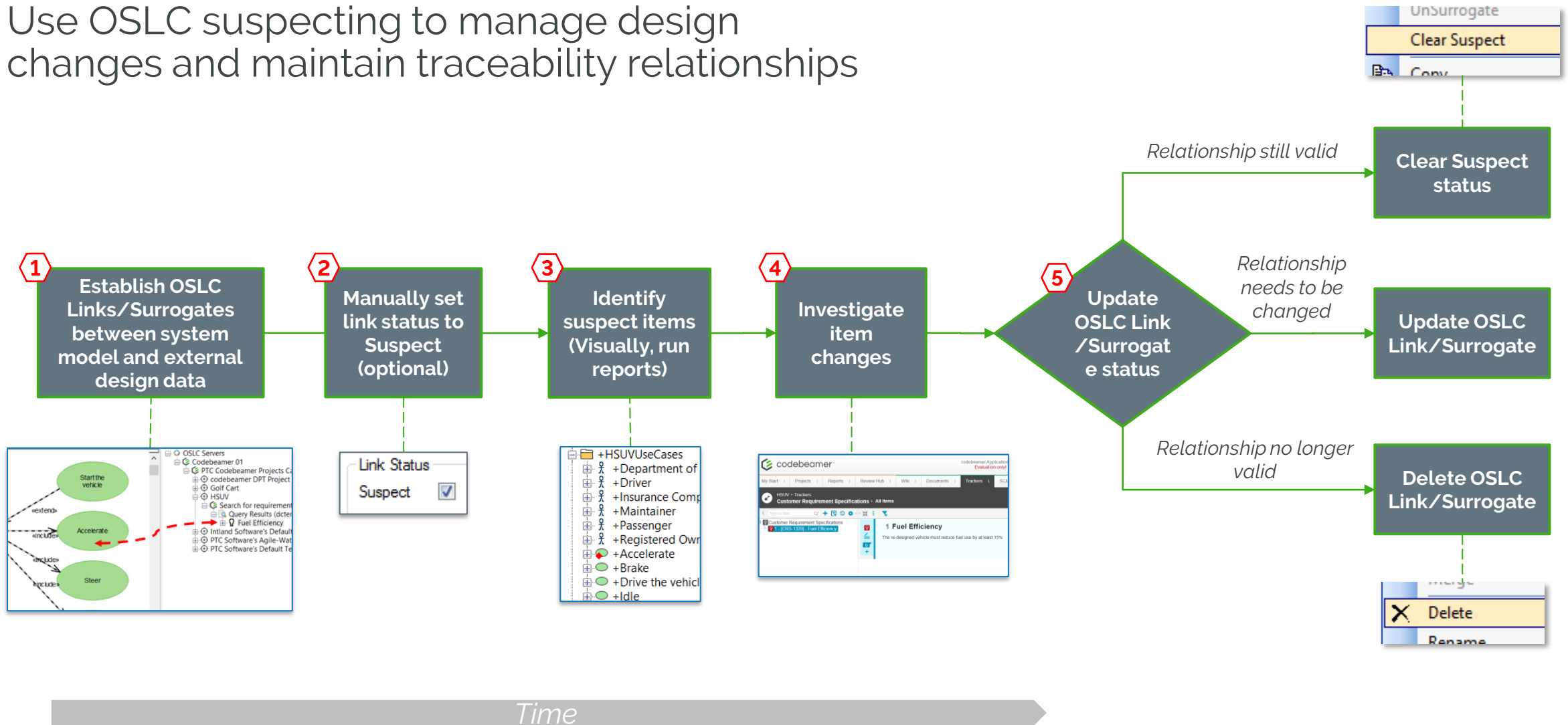
OSLC INTEGRATION WITH CODEBEAMER

- Suspecting provides visibility of changes to linked requirements
- Suspect OSLC relationships are flagged as possibly invalid, requiring review and disposition
- Manual and automatic modes



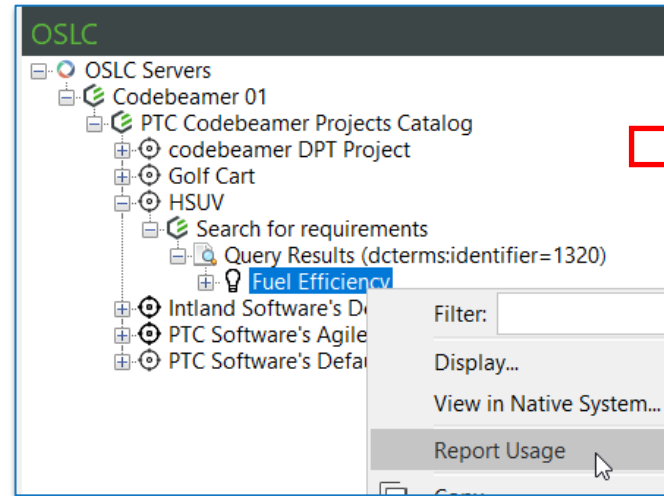
OSLC INTEGRATION WITH CODEBEAMER

Use OSLC suspecting to manage design changes and maintain traceability relationships

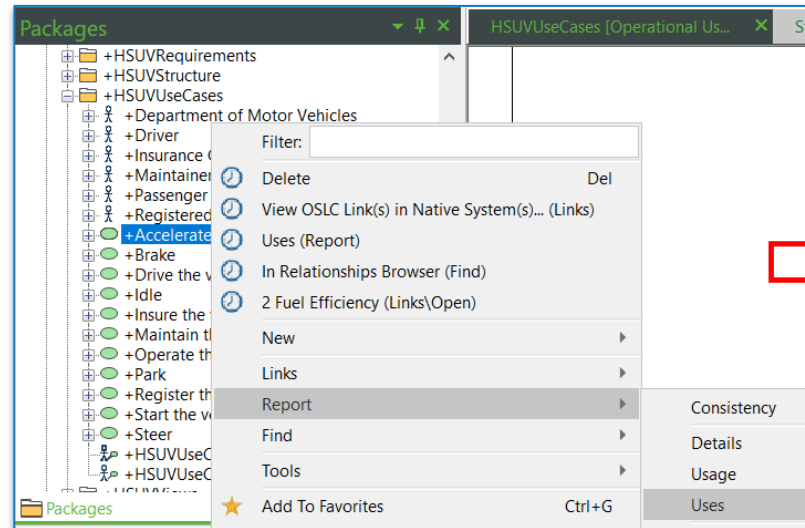


OSLC INTEGRATION WITH CODEBEAMER

- Reports enable users to navigate traceability relationships in either direction



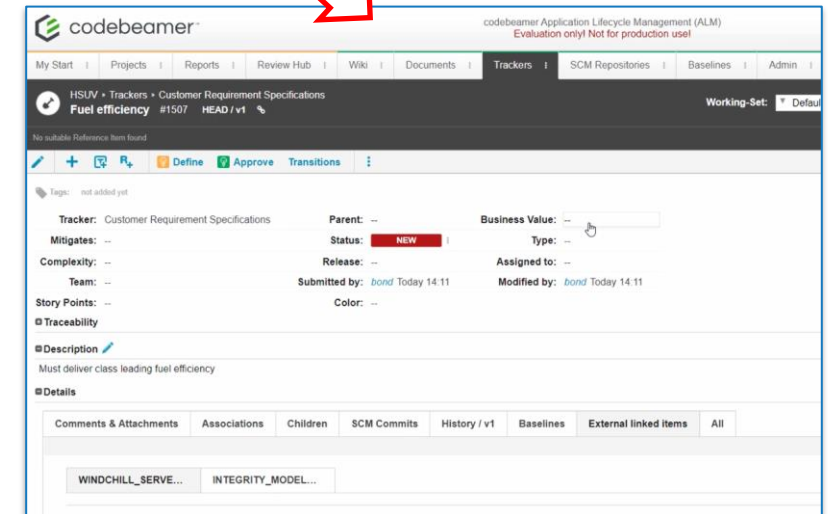
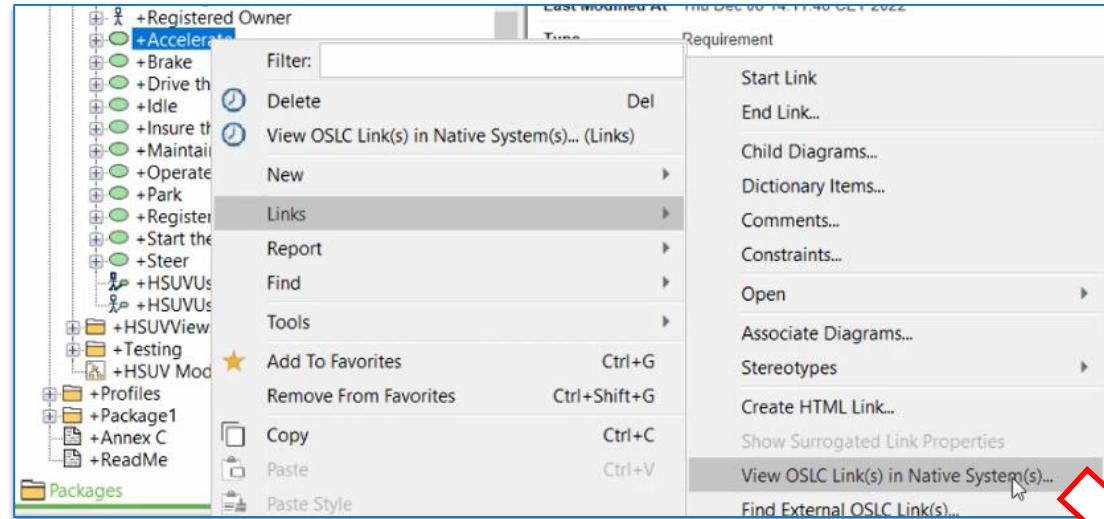
Items and Diagrams which use Fuel Efficiency.	
Name	Type
HSUVModel::HSUVUseCases.Accelerate	Use Case



Items and Diagrams which Accelerate uses.	
Name	Type
HSUVModel::HSUVRequirements::HSUVSpecification::Perf...	Requirement
Profiles::SysML Profile::Requirements.RequirementRelated	Stereotype
HSUVModel::HSUVUseCases.Accelerate.Fuel Efficiency	OSLC Link

OSLC INTEGRATION WITH CODEBEAMER

- Easily navigate trace relationships
- View OSLC Links in Native System function opens the linked requirement in Codebeamer



OSLC REVIEWS

- New reviews to report status of OSLC Links and Surrogates
 - Model items with OSLC Links
 - Model items without OSLC Links
 - Model items with OSLC Links that are Suspect
 - Model items which are OSLC Surrogates
 - Model items which are OSLC Surrogates and Suspect
 - OSLC Requirement Surrogates without links to model items

The image shows two overlapping windows from the Windchill Modeler Reviewer. The top window is the 'Config' dialog, and the bottom window is the 'HSUV, Version 4 - Windchill Modeler Reviewer' report.

Config Window:

- Checklist | Completeness | Componentization | Correctness | Metric | Report | Style | S
- Abstract class without subclass
- Catches exception
- Dependencies report
- Interpackage operation
- Model items which are OSLC Surrogates and suspect.
- Model items which are OSLC Surrogates.
- Model items with OSLC Links
- Model items with OSLC Links that are suspect.
- Model items without OSLC links
- Operation crosses architectural boundary
- OSD Pseudocode
- OSLC Requirement Surrogates without links to model items

HSUV, Version 4 - Windchill Modeler Reviewer Window:

- Run Report | Configure Report | Options | Back | Forward | Export Report | Manage Reports | Manage User Defined | Explore User Defined
- Complete | Dictionary | All Priorities
- Model items which are OSLC Surrogates and suspect.**
These model items are OSLC Surrogates and suspect.
 - Class : HSUVModel::Testing::Class1
 - Class : HSUVModel::Testing::Toilet (Cabin)
- Model items which are OSLC Surrogates.**
These model items are OSLC Surrogates.
 - Category : HSUVModel::Testing::Aesthetics
 - Class : HSUVModel::HSUVRequirements::Analysis (System Design)
 - Class : HSUVModel::Testing::Business Seat (Cabin)
 - Category : HSUVModel::Testing::Cabin
 - Class : HSUVModel::Testing::Cabin Roles (Cabin)
 - Class : HSUVModel::Testing::Class1
 - Class : HSUVModel::Testing::Aesthetics::Toilet (Cabin)
 - Class : HSUVModel::Testing::Toilet (Cabin)
- Model items with OSLC Links**
OSLC links found for these model items.
 - Class : HSUVModel::Testing::Block1
 - Class : HSUVModel::Testing::Block3

OSLC LINK EDITOR

- Manage OSLC links more effectively
 - Update all links after OSLC Server rename/rehost
 - Aimed at administrators who need to update OSLC links when a connected OSLC Server is renamed/rehosted
 - Update all OSLC links/surrogates in a model in a single operation
 - Expect customers to create backups before using, but there is also an option to rollback
 - Update individual OSLC links
 - Aimed at users who need to update OSLC links as product designs and trace relationships evolve over time
 - Update OSLC link to point to a different version of a resource
 - Update a canonical OSLC link to be a version-specific link (or vice-versa)



DEMO

The screenshot displays the Codebeamer Application Lifecycle Management (ALM) interface. At the top, the Codebeamer logo and 'codebeamer Application Lifecycle Management (ALM) Evaluation only! Not for production use!' are visible. A navigation bar includes 'My Start', 'Projects', 'Reports', 'Review Hub', 'Wiki', 'Documents', 'Trackers', 'SCM Repositories', 'Baselines', 'Admin', and 'Trash'. The current view is 'Customer Requirement Specifications' under 'Trackers', with a 'Working-Set' dropdown set to 'Default Working-Set'. A search bar is present in the top right.

The main content area shows a tree view on the left with 'Customer Requirement Specifications' expanded to show 'Fuel efficiency', 'Performance', and 'Safety'. The central pane displays three requirement items:

- Fuel efficiency**: Must deliver class leading fuel efficiency
- Performance**: Must provide different operation modes for Sport, Economy, Urban
- Safety**

The right-hand pane shows the details for the selected requirement, '[CRS-1507] Fuel efficiency'. The details include:

- Tracker: Customer Requirement Specifications
- Business Value: --
- Mitigates: --
- Status: **NEW**
- Type: --
- Complexity: --
- Release: --
- Assigned to: --
- Team: --
- Submitted by: bond Today 14:11
- Modified by: bond Today 14:11
- Story Points: --
- Color: --

Windchill Modeler 9.6 delivers requirements traceability with Codebeamer



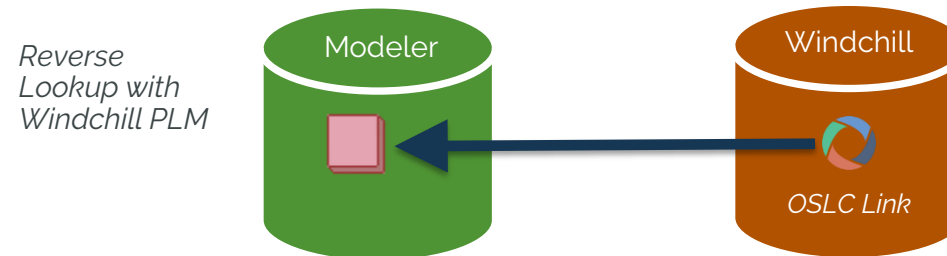
OSLC FOR CODEBEAMER

OSLC USABILITY

OSLC ENTERPRISE DEPLOYMENT

REVERSE LOOKUP INTO WINDCHILL PLM

- Reverse lookup from Windchill Modeler into Windchill PLM
 - Provide an easy way for Windchill Modeler users to access OSLC Links stored in Windchill PLM
 - Ensures users understand overall, end-to-end traceability with visibility to OSLC Links stored outside of Windchill Modeler



REVERSE LOOKUP INTO WINDCHILL PLM

Demo

Search for External OSLC Links

OSLC Servers Results:

- OSLC Servers
 - modeler
 - 0 links found
 - wind
 - 2 links found
 - 0000000216, modelerpart3, A.2 (Design)
 - 0000000217, modelerpart4, A.2 (Design)

External OSLC Resource:

<https://pwdcsv-wcqa54d.ptcnet.ptc.com/Windchill/oslc/config/versionParts/VR%3Awt.pat.WTPart%3A185556>

Part - 0000000216, modelerpart3, A.2 (Design)

Number: 0000000216
Name: modelerpart3
Version: A.2 (Design)
State: In Work
Modified By: Demo, User
Last Modified: 2022-07-15 09:14 BST

Assembly Mode: Separable
Source: Make
Gathering Part: No
End Item: No
Default Unit: each
Default Trace Code: Untraced
Context: modelerprod

View in Native System Use External Browser

Full name: Class1
Type: Class
Last changed on by: 7/5/2022 1:11:27 PM_aazsvmoda73dmodadpin

QUERY FOR RV&S DATA

- To handle large data, we have instead provided a way to **run searches / queries when accessing RV&S data**
 - Search using main OSLC properties (ID, Title)
 - Search for Requirements and Requirement Documents
- This ensures optimum performance and is consistent with integrations with other systems (Windchill PLM and DOORS Next)

QUERY FOR RV&S DATA

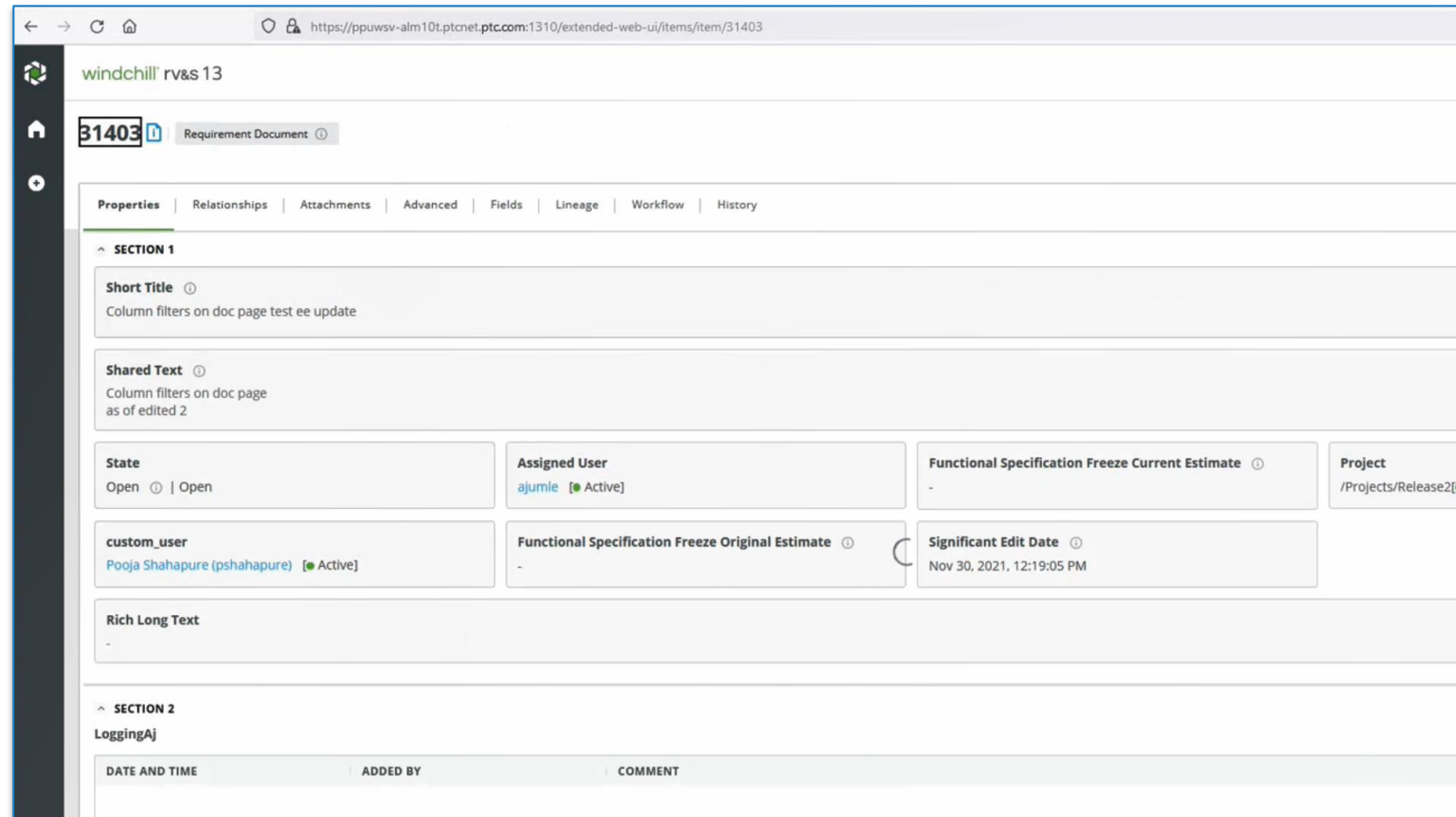
Demo

The screenshot displays the Windchill Modeler 9.6 interface. The main workspace shows a Use Case Diagram for 'Heart Monitor Use Cases'. The diagram features an actor named 'user' connected to three use cases: 'Run Heart Monitor', 'Alter Gain', and 'Alter Heart Rate'. 'Run Heart Monitor' is connected to 'Alter Gain' and 'Alter Heart Rate' with dashed lines labeled «extend». 'Alter Gain' is also connected to 'Alter Heart Rate' with a dashed line labeled «extend». The left-hand 'Packages' pane shows a tree structure with 'Heart Monitor Use Cases' selected. The top toolbar includes 'Diagram Tools' and various icons for selection, constraint, and diagram elements. The right-hand 'OSLC' pane lists 'OSLC Servers' including 'Codebeamer', 'Polarion', and 'Windchill RV&S'. The bottom 'Properties of Heart Monitor Use Cases' pane shows the 'Full name' as 'Function Heart Monitor Use Cases'.

Search for Windchill RV&S requirements with Windchill Modeler 9.6

VIEW IN NATIVE SYSTEM

- View in Native System links to refreshed Windchill RV&S web UI
- Demo



OSLC PREVIEW PAGES FOR SIEMENS POLARION

- Provide resource previews to give visibility to linked Siemens Polarion requirements from within Windchill Modeler

 **DP-315 - DrivePilot shall be easy to operate without extensive training.**

Created: 2017-05-21T20:53:29.773Z
Identifier: DP-315
Modified: 2022-06-22T05:56:52.416Z
PreviousStatus: inReview
Priority: Medium
Relation: Link{to='http://aazsv-moda79d/polarion/oslc/services/projects/drivepilot/workitems/DP-316'}
Severity: Must Have
ShortTitle: DP-315
Status: Approved
TargetVersion: Version 1.0 (2017-07-31)
Type: System Requirement
Version: Version 1.0 (2017-07-31)

Description

DrivePilot shall be easy to operate without extensive training.



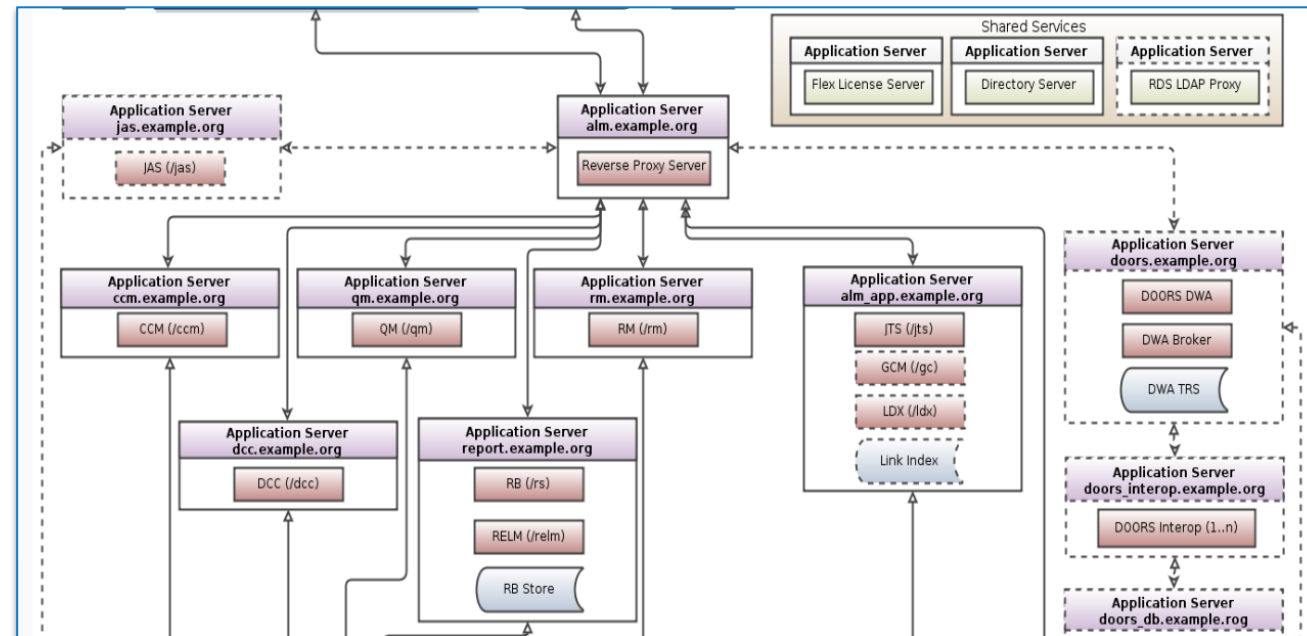
OSLC FOR CODEBEAMER

OSLC USABILITY

OSLC ENTERPRISE DEPLOYMENT

INTEGRATION WITH IBM DOORS NEXT

- Enable secure authentication for OSLC integration between Windchill Modeler and IBM DOORS Next, when DOORS uses a distributed deployment

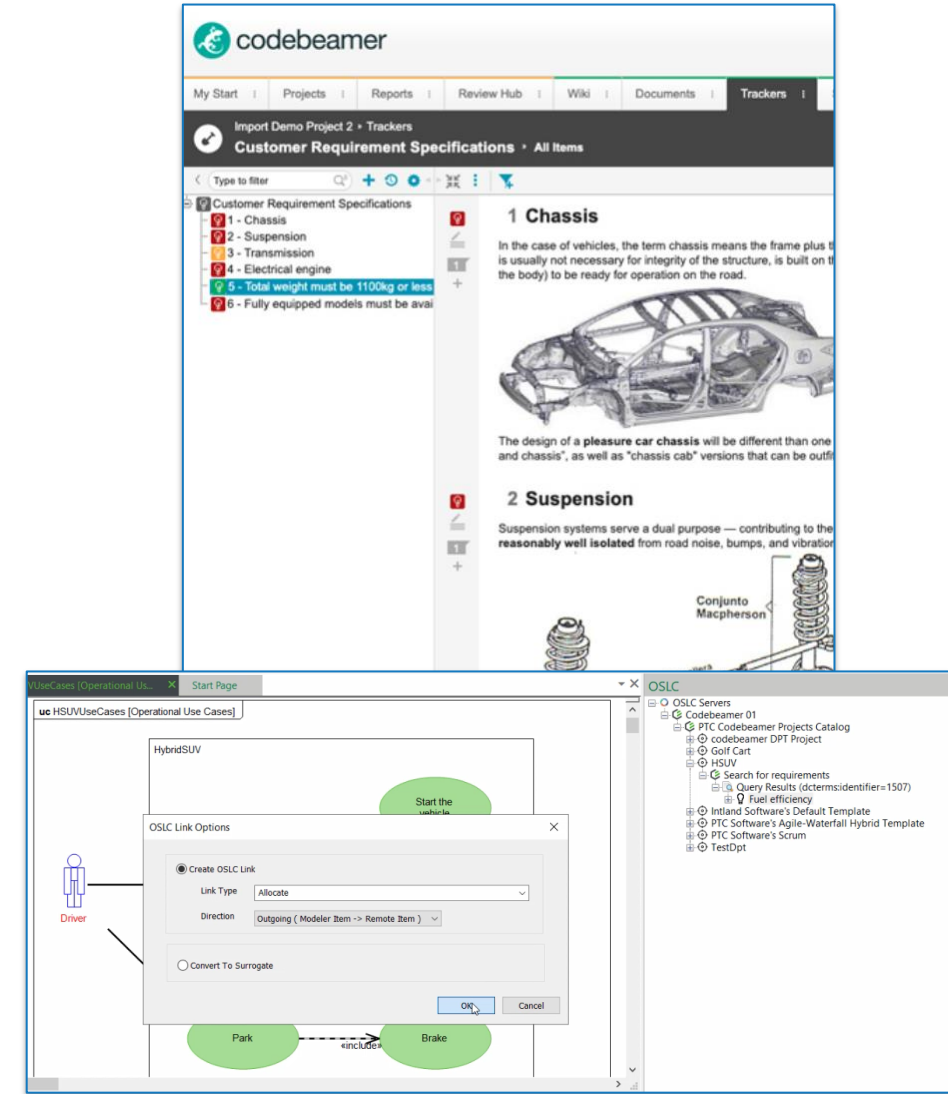


OTHER IMPROVEMENTS

- Users of Admin Groups are now able to create new databases or logins using Model Explorer
- Logins can now be deleted using Model Explorer
- Model owner can now delete models they have created
- Increased resolution of images when used by Windchill RV&S Synchronizer
- Table/Matrix Diagrams can now be identified with the corresponding text in their tabs
- Improved validation when adding OSLC Servers
- More detailed error reporting for OSLC client

SUMMARY

- Enable traceability with Codebeamer to connect system and software models with upstream requirements
- Improved usability with bi-directional visibility to OSLC Links in Windchill PLM
- Locate data in Windchill RV&S more quickly with new OSLC queries
- Better understand traceability with preview pages for Siemens Polarion requirements
- Securely connect to IBM DOORS Next in distributed environments





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THANK YOU

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