

Bridging to PLM with OSLC



We design and distribute software solutions for Enterprise Interoperability, Data Transformation, and Model-Based Code Generation to improve traceability, exchange, and sharing of engineering data in highly regulated industries.

With offices in France, Germany and the USA, we deploy our solutions worldwide in Aerospace, Automotive, Transportation, Defense and Medical industries.

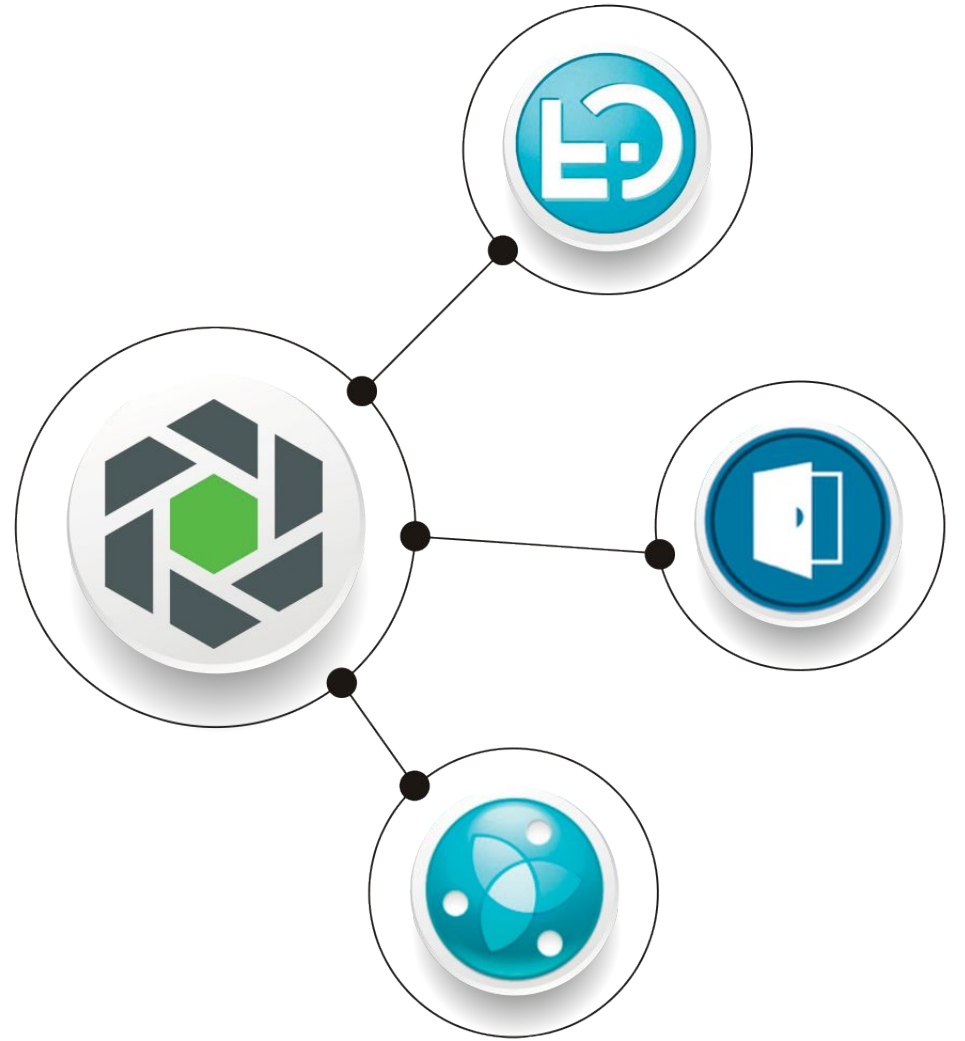


Our Mission

Integrate the engineering enterprise to accelerate
your ideas to market.



Integration with PLM with OSLC



What is Unique about PLM

- It reflects the organization
 - Main System of Record
 - Scope and Impact in an Organization
 - Level of Customization
- The method of configuration management
 - Storage
 - Versioning
 - Configuration selection



PLM as the System of Record

- PLM Foundational
 - Provide the golden source of the data
 - Long term storage of engineering assets
 - Configurations are embedded with the data
- Relationship to OSLC
 - Copy based solution rather than link based
 - Internally linked, but not typically externally
 - Intermixed data, versions, and configurations



PLM Versioning

- PLM Foundational
 - Artifacts are versioned singularly
 - Artifacts are versioned linearly
 - Artifacts can be branch, but not merged
 - Artifacts are released individually & used many time
- Relationship to OSLC
 - Artifacts similar resources
 - Artifacts similar to components
 - Artifact versions similar to baselines



PLM Configuration Strategies

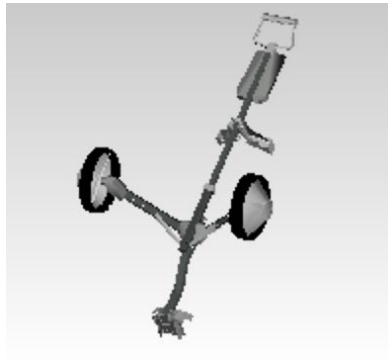
- PLM Foundational
 - Configurations mix both structure and version
 - Configurations are described by filters/selection criteria
 - Configurations are calculated, rather than applied
- Relationship to OSLC
 - PLM Configurations externally look like local configurations
 - PLM Projects appear like the containers
 - PLM configurations must participate in an enterprise configuration



Configurations in PLM with OSLC

 GolfCart 1.1.0

As Composed Enterprise Configuration (ALM & PLM)

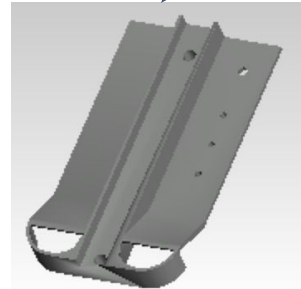
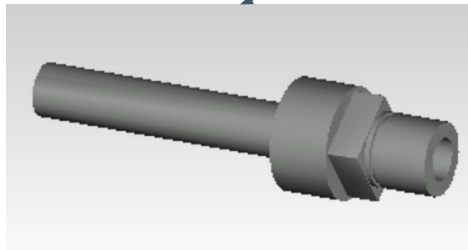


GC000001, GOLF_CART, A.1 (Design) 

<input type="checkbox"/>		ID	Name	Artifact Type
<input type="checkbox"/>		387	 FMEA Module	System Specification

 GolfCart 1.0.0

As Designed Part Configuration



GC000030, CARD HOLDER, A.1 (Design)

An individual part needs to have a configuration to support the “as designed” configuration to be complete in design. The enterprise requires an enterprise configuration to describe the designed system as a whole across the enterprise and inclusive of PLM..



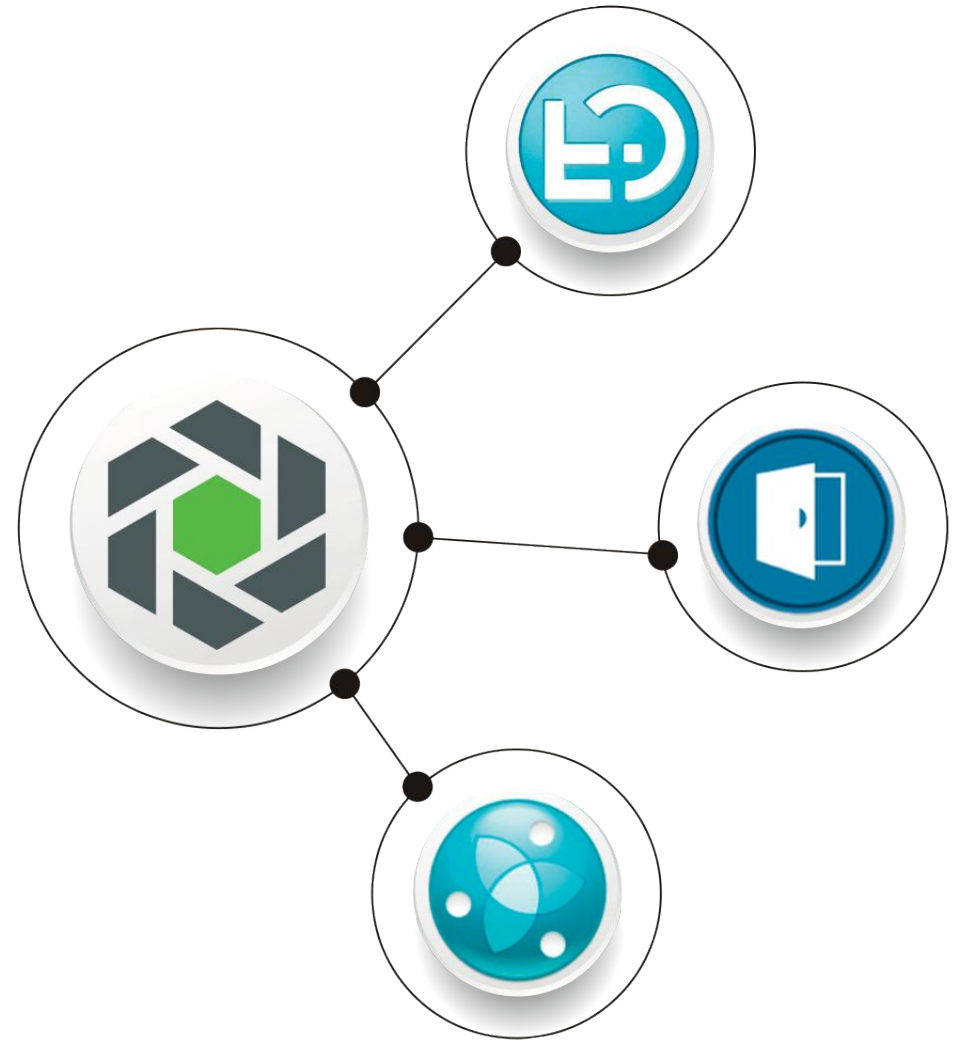
PLM in the OSLC Enterprise

- PLM Assets must be treated as configurable elements
- PLM Assets need to persist in the “as designed” and “as used” configurations
 - Configuration Aware and Configuration Participant roles
- It is mandatory to have a Enterprise Configuration Manager
- OSLC can reduce the burden of PLM as the only Enterprise Repository





Integrate PTC Windchill with IBM Engineering Lifecycle Management.



What we value in our products

- **Engineers** working where they are productive
- Tools that are **flexible** to the engineering needs
- Tools that work in the **enterprise**



OSLC Connect Products

- **Deep integration** of OSLC interfaces to existing enterprise repositories
- Target all **OSLC** compliant tools
- Focus on **Enterprise** requirements and constraints
- Deliver on the **Digital Thread**



Windchill Parts

Product organizations are driven by their physical parts, part versions, and collections of parts. These parts must address specific requirements and are leveraged in the quality practices.

The top-left screenshot displays the Windchill interface for a specific part: 'Part - GC000039, LT_ARM, A.3 (Design)'. It features a navigation bar with tabs for 'Details', 'Structure', 'Related Objects', 'Changes', 'History', 'Where Used', and 'Traceability'. Below the tabs, there are sections for 'Configuration Association' and 'Collaboration Links'. The 'Configuration Association' section shows a table with one object: 'Golf Cart v1.0.0'. The 'Collaboration Links' section shows a table with two objects: 'Refines' and 'Refines'.

The top-right screenshot shows the 'Golf Cart Requirements' page for 'GC000039, LT_ARM'. It displays a table of requirements, including a requirement for 'Golf Cart must support golf bags weighing up to 100 pounds'.

The bottom screenshot shows the 'Test Cases' page for '2: test release 2.3.0 1'. It displays a table of test cases, including a test case for 'Golf Cart must support golf bags weighing up to 100 pounds'. The sidebar on the left contains navigation links for 'Test Case', 'Sections', 'Test Case Design', 'Formal Review', 'Development Items', 'Requirement Links', 'Risk Assessment', 'Pre-Condition', 'Post-Condition', 'Expected Results', 'Test Scripts', 'Test Case Execution', 'Records', 'Attachments', 'Execution Variables', 'Architecture Element Links', 'Show All Sections', 'Manage Sections', 'Snapshots', and 'History'.

- **Use Cases**

- Parts must conform to a collection of requirements and standards to support design
- Quality activities execute on specific parts for performing tests and with execution results

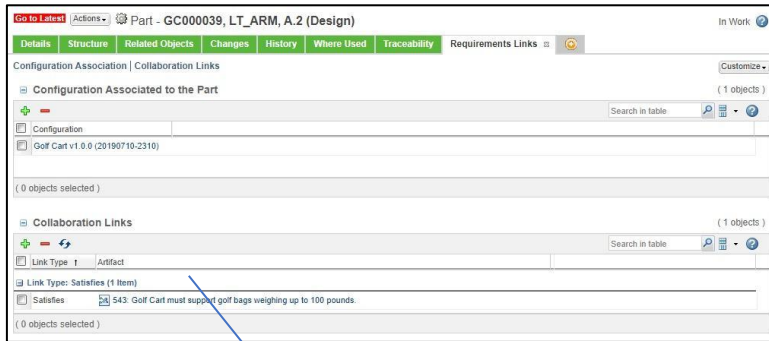
- **Solution**

- Provide the ability to identify specific requirements (and versions) from Windchill
- Provide the ability to link quality artifacts (test cases & test execution results) to Parts

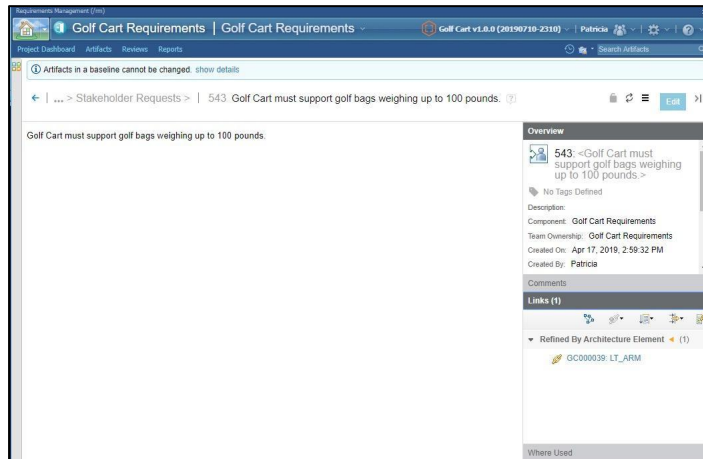


Windchill is Configuration Aware

Artifacts in Windchill participate in a world of versions. Windchill parts are versioned and their links operate in a world of versioning.



A specific Windchill Part version can point at a specific baselined requirement



- **Non-Global Configuration ELM Environments**

- Parts link to ELM artifacts
- Backlinks are created on ELM artifacts
- Links identify the current artifacts

- **Global Configuration ELM Environments**


- Parts link to ELM artifacts
- Parts are discovered related to requirements
- Part versions target a configuration to enable identification of specific requirements





Live Demo



An abstract graphic on the left side of the slide, consisting of a complex network of white dots connected by thin white lines, forming a web-like structure against a dark background. The network is denser on the left and tapers off towards the right.

Achieve the
Digital Thread
with OSLC
technology.



The Power of Connected Data

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