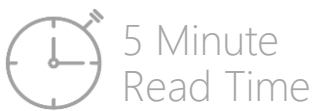


Upchain PLM Implementation and Data Migration Case Study



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Background

Summary of customer, industry, company size, and working relationship

Cooper Standard, a leading global supplier of sealing and fluid handling systems and components for transportation and industrial markets, divested its ownership of SFC Solutions in Q1 2021. SFC Solutions provides fluid transfer systems and sealing solutions to the automotive industry. Primary operations are in Europe with state-of-the-art manufacturing facilities located in Poland, Spain, Italy, and India.

Upchain and the vdR Group worked with SFC Solutions to provide an Upchain PLM implementation and data migration services.

Challenges

Customer business needs and metrics such as lost revenue, hours, legacy solutions

While as a subsidiary of Cooper Standard, SFC used a shared Windchill environment with other Cooper sites to manage its data and processes. As part of the divestiture, SFC desired a move from a highly customized, complicated Windchill interface to a user-friendly Upchain PLM cloud-based solution. This would allow them to simplify and streamline their processes going forward.

PLM is a critical piece to SFC's processes and procedures. As such, the following challenges and considerations were to be accounted for:

1. Understanding the Windchill data structure for proper extraction of only SFC data and shared part library data - leaving Cooper Standard's data untouched in Windchill
2. Prepare/configure Upchain PLM to support

SFC data. This included item types, numbering schemas, attributes, and various picklists.

3. Support for part classification utilizing Upchain's categories and specific attributes.
4. Create simplified versions of the Change Request (CR) process that SFC was using in Windchill.
5. Transformation of data values to be SFC specific values. In Windchill, many of the data values were inherited based on the overall configuration.
6. Develop a first of its kind data migration routine and methodology for Upchain PLM.
7. SFC uses SAP for its ERP needs. Understand and account for data that will eventually be transferred to SAP at the conclusion of workflow processes in Upchain PLM. When 'Released' what data will be passed along – and what legacy data is to be migrated from Windchill to Upchain to preserve the data transfer.
8. Aggressive project timeline due to divestiture timeline constraints (10 weeks). Once divested, SFC would not have full access to data in Windchill.

Solutions and Services

vdR's proposed solution using Autodesk technology

The Upchain team worked with SFC to provide a tenant environment for their PLM needs. At the beginning of the project, SFC's tenant contained only user identities – no production ready projects or item types, categories or data.

The following solutions and services were then provided by vdR in alignment with SFC's business requirements.

Part 1 - Upchain Tenant Configuration Services which included but not limited to:

1. Project creation – over 250 projects created
2. Item configuration - all object types including parts, BOM items, CAD objects and Document types
3. Attributes - the creation of all mapped attributes, and the population of all supporting tables for SFC's picklist attributes
4. Classification/category configuration - where each component classification has unique metadata values. Each classification was set up as a category and configured to support the migration of data and ongoing use by SFC
5. Workflow configuration - SFC has defined workflows to support purchased versus manufactured parts. These workflows were configured to support the proper notification as required
6. Item/document numbering and revision scheme configuration
7. Document configuration

Part 2 - Legacy Data Migration services which included but not limited to:

1. Data Extraction
 - a. Reverse engineered Windchill database structure for data extraction to include parts, documents, native files and viewables
 - b. For each part/document, extracted complete revision history for released and latest work in progress revision and included the date released, the person who released it and meta-data specific to each revision

2. Data Preparation and Transformation
 - a. Create a data mapping definition for each data type and its corresponding fields from the source to the target system
 - b. Define the target path within Upchain for all data (parts, documents, native, viewable)
 - c. Transform the data values as required to support SFC specific attribute values
 - d. Complete data validation to ensure that the legacy data values match the values that are defined in Upchain
 - e. Determine if standard naming conventions will be applied or if the data types names/numbers will be imported as-is
 - f. Create data migration analysis reports
 - i. these routines included logging that identifies the result of each record being migrated
 - ii. analysis of the migration process was developed from the logging reports
3. Test and Production Migrations
 - a. Extract data from Windchill
 - b. Normalize, Transform, and Validate
 - c. Create migration data output files (XML)
 - d. Run migration routine
 - e. Review Migrated Data
 - i. vdR and client to review migrated data for accuracy
 - ii. Provide error handling reports and resolution
 - f. Client to provide feedback and sign-off
4. Post-Migration
 - a. Provide migration status report and full list of migrated records
 - b. Provide support to SFC as they begin using Upchain in a production capacity

Results and Metrics

Customer impact and metrics tracked and achieved during project

The onboarding of Upchain PLM coupled with configuration and data migration services from vdR resulted in a solution that met the SFC requirements and project timelines. Throughout the course of the project, requirements evolved yet vdR remained steadfast to achieve the milestones and timelines set forth by the customer.

On Day 1 of the projected go-live date, the SFC team was able to move to the Upchain cloud-based PLM solution which allowed them to streamline their processes. Minimal effort was provided by vdR to support minor data issues as found by the SFC team.

Additional project activities are in the works with SFC. They have a business requirement to pass released part data to SAP. This includes the creation/update of Item Master and BOM data. To fulfill this requirement, the team is providing the Upchain Connect solution.

Project Timeline

Timeline of when customer case study was delivered

The project occurred over a 10-week period during Q1 CY2021. All milestones and deliverables were provided on time or ahead of SFC Solutions' March 30th divestiture deadline from Cooper Standard.

As noted, vdR is working with SFC to deploy Upchain Connect (an Upchain to SAP) integration. This project is currently in-progress.

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About The vdR Group - PLM Practice

Over the last three decades, The vdR Group has emerged as a leading product lifecycle management solutions provider with a focus on driving digital transformation for engineering, manufacturing, and AEC companies. We do this via a consultative and solutions-based approach that includes strategic consulting, end-to-end implementations and application integrations. vdR is one of Autodesk's earliest data management partners and has helped 100s of companies ranging from Global Fortune 500 manufactures to cutting-edge start-ups. Today, over 220,000 global users leverage vdR's solutions.

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