Engineering Change Management

CORTERRA SOLUTIONS

Product Dimension Conversion

Unlocking Engineering Change Management

Dynamics 365 Finance and Supply Chain Management

Summary

In today's competitive manufacturing landscape, manufacturers require robust systems for handling product data, maintaining version control, and managing engineering changes. These measures are essential because product lifecycles are getting shorter, quality and reliability standards are rising, and there is a heightened emphasis on ensuring product safety. Dynamics 365 Supply Chain Management has a module for handling Engineering Change Management. The module allows for tracking engineering changes to different Versions of a product. It did not always have this capability though. Engineering Change Management and the "Version" dimension did not exist until 2022. Numerous clients repurposed other dimensions to act as a "Version" or "Revision." Yet, this is problematic. Read below about why this is a problem and how we solved it.

Problem

Dynamics 365 Supply Chain Management has a module for handling Engineering Change Management. The module allows for tracking engineering changes to different Versions of a product. It did not always have this capability though. Engineering Change Management and the "Version" dimension did not exist until 2022. The need to track "versions" or "revisions" of a part in a manufacturing environment has always existed, whether the platform had the capability or not. Thus, Corterra, and many others in the world, repurposed other dimensions to be able to track revisions. There is a problem with this approach. Engineering Change Management relies on the version dimension to unlock the full functionality. It does not support using other dimensions, such as the Style dimension, which Corterra and others in the world have used to track this information. To make matters worse, there is not an out of the box way to convert dimensions. Luckily with a tiny bit of guidance from Microsoft and the deep technical expertise at Corterra, we developed a solution. Read on to find out what we did!

Solution

Our solution entailed developing a series of code objects to programmatically convert the Style dimension to the Version dimension. We originally requested this as a capability in the platform, yet were denied by Microsoft, with the response stating that this was not planned and would not be planned. As a consolation, we were provided with initial guidance about how to do this conversion ourselves. We took the original guidance and built out a solution.

- **Variant Conversion.** Convert all product variants to use the new dimension Version from the Style dimension (labeled as the Revision dimension)
- **Inventory Dimension update.** Updated all the inventory dimensions to effectively swap the style dimension for the version dimension
- **Existing screens and reports.** Many screens, forms, reports, etc. already contained the Style dimension. These were updated to use the Version dimension

Ultimately this was not "effort free." While it took time to develop the conversion solution and test its impact, the effort was significantly lower than the alternatives. Building out engineering change management capabilities from scratch, altering the out of the box system to utilize the Style dimension, or choosing to go with a third-party system would be significantly more effort. Additionally, if choosing a third-party system, licensing cost would be incurred for the system, increasing the clients total cost of ownership.

Results

Cost savings. By converting the dimension, Corterra saved the client significant costs. Without converting the dimension, the client would have to invest in a third-party system or building out the functionality to work with the Style dimension. Neither were desired solutions. Another system to manage the engineering changes would require additional license cost and integrations between Dynamics and the engineering system. Not to mention the time to "wait" for the integrations to run, which can lead to a frustrating user experience.

One platform. Clients choose an ERP system like Dynamics 365 Supply Chain Management because it is enterprise grade. It is expected to contain all the features to run a medium to large enterprise. Customizations are also expected, but entire modules are a large investment. Through the conversion efforts, the robust engineering change management capabilities were unlocked, aligning with the vision and expectation of one system.

ABOUT CORTERRA SOLUTIONS

Corterra Solutions offers IT infrastructure, ERP implementation, cloud migration, cybersecurity, and analytics services that help small, medium, and large businesses operate and grow securely, efficiently, and intelligently. As a Microsoft Partner, Corterra has extensive experience with Microsoft technologies, including Dynamics 365, Microsoft 365, Power Platform, Azure, and Teams. Our deep partnerships with clients, coupled with our reputation for outstanding service, give clients freedom to focus on meaningful work that drives their companies' success. For more information, please visit www.corterrasolutions.com.