

Accelerating Creo Design with Automation

Achieving 60% faster time-to-market and thousands of product variations on demand

The Client: Hitachi Energy

Hitachi Energy is a global leader in transformers, providing liquid-filled and dry-type solutions along with full life-cycle services. Their portfolio helps utilities, industries, and infrastructure sectors maximize asset reliability and performance while reducing costs and environmental impact.

The Challenge: Finding the Right Automation Solution



The transformer components division of Hitachi researched potential automation solutions to harmonize their CTO and ETO products.

They first looked at repurposing Toolkit applications from other internal divisions. Unfortunately, there would be a lot of work involved to adapt these applications,

and the integration to Windchill was inadequate.

There would also be a high maintenance cost for these applications, as they could not be managed internally.

Fortunately, they found SIGMAXIM's SmartAssembly, which allows Hitachi to write applications without programming and includes an integration to Windchill.

Best of all, once the automation is created, it requires no additional work as they upgrade to new versions of Creo.

The Solution: SmartAssembly for Creo Parametric

SmartAssembly is an automation platform that enables organizations to achieve company initiatives from design to manufacturing. It can put any or all design and process rules into Creo to eliminate non-value-added engineering work by:

Automating Design Processes: Replacing manual tasks with automation to ensure consistency and reduce errors.

Generating Deliverables: Automatically creating outputs, e.g., BOMs, drawings, and manufacturing data, optimized for production systems.

Driving Data: Taking information from Creo and driving it directly into enterprise systems like Windchill, and ERP systems like Oracle and SAP.

INDUSTRY

Energy & Utilities

CHALLENGES

- Unify CTO and ETO product workflows
- Eliminate reliance on legacy Toolkit applications
- Reduce high maintenance and upgrade costs
- Improve integration with Windchill
- Enable teams to manage automation internally

SOLUTIONS

SIGMAXIM SmartAssembly
SIGMAXIM SmartDesignServer

BENEFITS

- Improved customer response
- Improved design cycle time
- Accurate deliverables
- Considerable improvement in time to market

The Results: On the Fly Automation

Hitachi created automation that harmonized both their CTO and ETO products from a common configurator. Now, products with large variations can be created on the fly, without manual intervention.

There have been many benefits to this automation approach that would not have been possible manually. The first is being able to create 5,000 variations on the fly to check for interferences.

Hitachi also estimates a 60% reduction in time to market as well as an increase in quality by providing richer data.

At first, engineering was apprehensive to accept an automation solution. *"Some engineers feared their jobs would be replaced by automation. But since the solution has been implemented, engineers are diverting their energies to other areas that benefit the company,"* says Mohanraj Krishnan, Global Engineering Manager.

Hitachi improved quality and reduced delivery time by 60% with SIGMAXIM SmartAssembly

Expanding the Power of SmartAssembly with SDS Web Selector

Hitachi recently acquired SmartDesignServer with SDS Web Selector, another SIGMAXIM offering, to further leverage the power of their automation.

SDS Web Selector, an easy to configure web selection tool, translates product rules into design rules to automatically build products without user interactions in Creo Parametric. Allowing even non-technical users to self-serve, without having Creo or engineering knowledge, results in even greater savings of engineering resources otherwise spent on configuration tasks.

The Future: Scaling Automation Company-Wide

Hitachi continues to increase their competency with SmartAssembly, with the goal of increasing the number of automated products. They are so pleased with the results that all new products will be designed with automation, and eventually move to legacy data.

"SmartAssembly was much easier to learn than expected," said Abiram Sakthivel, Engineering Manager. *"It's allowed our engineers to develop automation independently and expand it across more products."*

ABOUT SIGMAXIM

SIGMAXIM has been the leading global expert in Creo automation solutions for over 20 years. We partner with companies of all sizes to deliver low risk, efficient automation solutions for both standardization and product configuration initiatives.

CONTACT US

Learn how SIGMAXIM's Creo Automation platform can help optimize your unique design process.

+1 617-981-6500 | +1 877-SIGMAXIM
www.sigmaxim.com | info@sigmaxim.com