Get Early Visibility into Manufacturability & Product Cost

Deliver High Quality Designs Faster at Lower Costs

In today’s time organizations spend millions of dollars on Engineering Change Orders (ECOs). A single ECO can cost up to $30,000. A small investment using DFX at the design stage to address manufacturing and assembly requirements help save significant time to market.

HCL DFMPro is an easy-to-use CAD-integrated Design-for-Manufacturing (DFM) software. It identifies & provides recommendations to resolve potential downstream manufacturing issues. It helps reduce time consuming design iterations resulting into faster development of high-quality products.
Product Design Challenges
- Overwhelming engineering change orders (ECO / ECN)
- Product cost escalations and depleting margins
- Product launch delays
- Dispersed organization knowledge

HCL DFMPRO Benefits
- Captures design issues early and reduce engineering rework
- Understands opportunities for cost reduction right at design stage and save cost
- Avoids late stage engineering changes and time-consuming rework
- Captures best practices and bring in standardization in design review process

Easy and Powerful DFM Software to Drive Measurable Results Fast

Automates the DFM Review Process
- DFMPRO automates and formalizes the design review process
- Seamlessly integrated inside DS CATIA V5, PTC CREO Parametric®, Siemens NX®, and SOLIDWORKS®

Rule Manager
- Selects and configures organization specific guidelines as design rules
- Brings standardization in design review process

Industry Best Practices
- Engineering best practices
- Supplier capabilities
- Standardization requirements

Organization Specific Best Practices
- Sourcing
- Manufacturing
- Service

Enables Best Practice Knowledge Capture and Dissemination
- Customizable framework to capture in-house best practices, tribal knowledge and industry standards
- Facilitates continuous design improvements and knowledge retention of retiring workforce

Enterprise Systems
- PLM Integration
- ERP
- MES
- Others
- Product Engineering

DFMPRO Solution
- Input
- 3D model
- Best Practices
- recommendation
- Output

Easily Integrates Into Existing Enterprise Infrastructure
- Integrates easily with PLM, ERP, and MES systems
- Scalable framework for capturing and disseminating manufacturing knowledge upstream
HCL DFMPRO – A Digital Design Expert

- CAD integrated easy to use digital design expert
- Automatically captures and highlights issues that lead to engineering rework
- Identifies opportunities for cost reduction for a component
- Digital collaboration between downstream stakeholders for design reviews

HCL DFMPRO Supports various CAD platforms

- DFMPRO for CATIA V5
- DFMPRO for CREO
- DFMPRO for NX
- DFMPRO for SOLIDWORKS
DFMPro Cost Add-on

DFMPro cost add-on provides early cost visibility to design engineers right from when designs are getting created.

- Evaluates design choices based on material, features, geometry & manufacturing regions
- Identifies expensive design features impacting cost due to manufacturability and get recommendations for cost reduction
- Tracks the cost as designs are getting created
- Applies standardization and component re-use

Cost Effective Designs

- Design validation
- Cost Trend Indicators

DFX Analytics

DFX platform offers DFX Analytics as one of the solution for customers to get visibility of various parameters to check overall product design efficiencies

- Improves effectiveness of DFX reviews
- Tracks DFX issues for program success
- Ensures DFX best practices
- Ensures success of DFX initiatives
- Captures the data generated by designers
- Visualizes the data with predefined plots
- Analyzes and takes action
- Plans effectively with supporting data
- Monitors the process with live data
- Identifies and reduces waste

DFX Server Solution

HCL DFX Server Solution is an extended capability of HCL DFMPro for customers who face challenges related to rework, cost, and quality for large assemblies. With DFX Server Solution, designers can check the impact of part and sub-assembly level changes on higher modules and assemblies prior to submitting their designs in an offline mode on the server. As a result, large assemblies that would have been excluded from an automated DFMPro analysis earlier are now included right at the design stage. DFX Server Solution benefits include:

- Runs multiple analysis requests simultaneously
- Uninterrupted workflow for designers
- Timely design validation for downstream issues
- Access to dashboard in DFMPro add-in
In our organization, time to market is of utmost importance besides other factors. HCL DFMPro product enabled us to digitize the design rules for a quick & timely feedback.

Apart from sets of standard design guidelines in the DFMPro, we partnered with HCL to add Cisco specific design rules that caters to our organization. DFMPro is the only automated tool for Design for Manufacturability (DFM) analysis besides input from manufacturer or analyzing parts manually. We have DFMPro configured for Sheet Metal, Plastic & Die-cast parts to ensure that the parts are designed for manufacturability.

Biren Kothari  
NPI Technical Lead,  
Mechanical, Cisco Systems  
San Jose, California USA
About HCLSoftware

HCLSoftware develops, markets, sells, and supports product families in the areas of Digital Transformation, Data, Analytics & Insights, AI & Automation and Enterprise Security platforms. HCLSoftware is the cloud-native solution factory for enterprise software and powers millions of apps at more than 20,000 organizations, including more than half of the Fortune 1000 and Global 2000 companies. HCLSoftware’s mission is to drive ultimate customer success with its IT investments through relentless product innovation.

https://www.hcl-software.com
HCL DFMPro Supports all Manufacturing Processes

Marketing  Sheet Metal  Injection Molding
Assembly  Die-casting  Welding
and many more

In our organization, time to market is of utmost importance besides other factors. HCL DFMPro product enabled us to deploy the design rules for a quick & timely feedback.

Apart from sets of standard design guidelines in the DFMPs, we partnered with HCL to add Cisco-specific design rules that cater to our organization. DFMP is the only automated tool for Design for Manufacturability (DFM) analysis besides input from manufacturer or analyzing parts manually. We have DFMPs configured for Sheet Metal, Plastics, & Die-cast parts to ensure that the parts are designed for manufacturability.

Biren Kothari
NPI Technical Lead,
Mechanical, Cisco Systems,
San Jose, California USA

HCL Software
Get Early Visibility into Manufacturability & Product Cost

Deliver High Quality Designs Faster at Lower Costs

In today’s time organizations spend millions of dollars on Engineering Change Orders (ECOs). A single ECO can cost up to $40,000. A small investment using DFMP at the design stage to address manufacturing and assembly requirements helps save significant time to market.

HCL DFMP is an easy-to-use CAD-integrated Design-for-Manufacturing (DFM) software. It identifies & provides recommendations to resolve potential downstream manufacturing issues. It helps reduce time consuming design iterations resulting into faster development of high-quality products.

For more information: dhanybharad@hcl.com | https://www.hclmp.com
**Easy and Powerful DFM Software to Drive Measurable Results Fast**

- Automates the DFM Review Process
- DFMPro automates and formalizes the design review process.
- Seamlessly integrates inside DS CATIA V5, PTC CREO Parametric®, Siemens NX®, and SOLIDWORKS®

**Rule Manager**

- Informs and enforces organization specific guidelines as design rules.
- String Standardization in design review processes.

**Industry Best Practices**

- Enables Best Practice Knowledge Capture and Dissemination
- Customizable framework to capture best practices and knowledge retention of retiring workforce.
- Facilitates continuous design improvements and knowledge retention of retiring workforce.

**HCL DFMPRO Supports various CAD platforms**

- DFMPRO for CATIA V5
- DFMPRO for CREO
- DFMPRO for NX
- DFMPRO for SOLIDWORKS
- DFMPRO for Siemens PLM
- DFMPRO for EOS
- DFMPRO for Oberon

**HCL DFMPRO Benefits**

- Captures design issues early and reduces engineering rework.
- Understands opportunities for cost reduction prior to design stage and save cost.
- Aids last stage engineering changes and allows comparing changes.
- Captures best practices and bring in standardized flow in design review processes.

**DFMPRO Cost Add on**

- Cost-effective Designs
- Design validation
- Cost Trend Indices

**DFX Analytics**

- DFX platform offers DFX Analytics as one of the solution for customers to get visibility of various parameters to check overall product design efficiencies.
- Captures the data generated by designers.
- Visualizes the data with predefined plots.
- Validates and takes action.
- Plans effectively with supporting data.
- Monitors the process with live data.
- Identifies and reduces waste.

**DFX Server Solution**

HCL, DFX Server Solution is an extended capability of HCL DFMPRO for customers who face challenges related to rework, cost, and quality for large assemblies. With DFX Server Solution, designers can check the impact of part and subassembly level changes on higher module and assemblies prior to submitting their designs. It offers an offline mode on the server, so no tools, large assemblies that would have been excluded from automated DFX analysis are now included right at the design stage. DFX Server Solution benefits include:

- More accurate analysis in offline environments.
- Timely design validation for downstream issues.
- Access to database in DFMPRO offline.