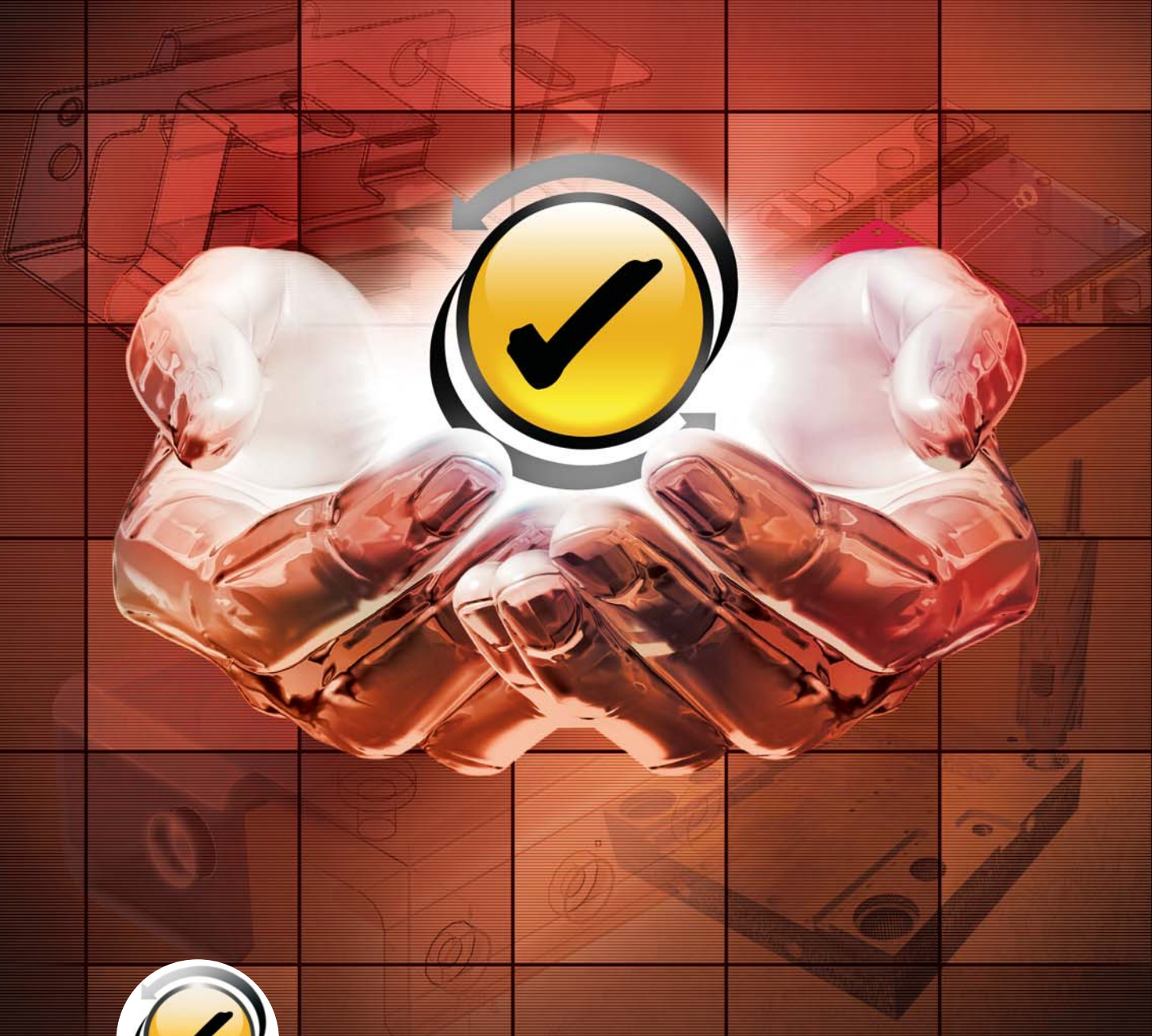




# DFMPro

A Geometric Product



[www.dfmpro.com](http://www.dfmpro.com)

**Get your designs right the first time!**



The design stage is considered to be most crucial in the product lifecycle process. Approximately 80% or more of the lifecycle costs are committed by decisions taken during the design stage. Thus it becomes important to get the designs right the first time, as the costs rise exponentially if problems are detected in later stages of product lifecycle. Key challenges faced by organizations are:

- Ineffective manual reviews due to the time consuming and iterative nature of the review process
- Shortage of design and manufacturing experts
- Inability to capture knowledge from experts and pass them on to fresh design engineers

Existing methods of Design for Manufacturing (DFM) reviews involving check lists and consultations with manufacturing experts have many limitations and produce inconsistent final designs since they are based on manual intervention. Organizations need consistent mechanisms to enforce DFM guidelines and checklists to ensure predictable and high quality design output.

## DFMPro Product

DFMPro from Geometric facilitates upstream manufacturability validation. DFMPro helps to reduce cost by identifying design errors that finally result in difficult, expensive, or impossible to manufacture products. DFMPro also automates the iterative design review process and provides a mechanism for capturing and reusing manufacturability knowledge for continuous process improvement.

## Key Features

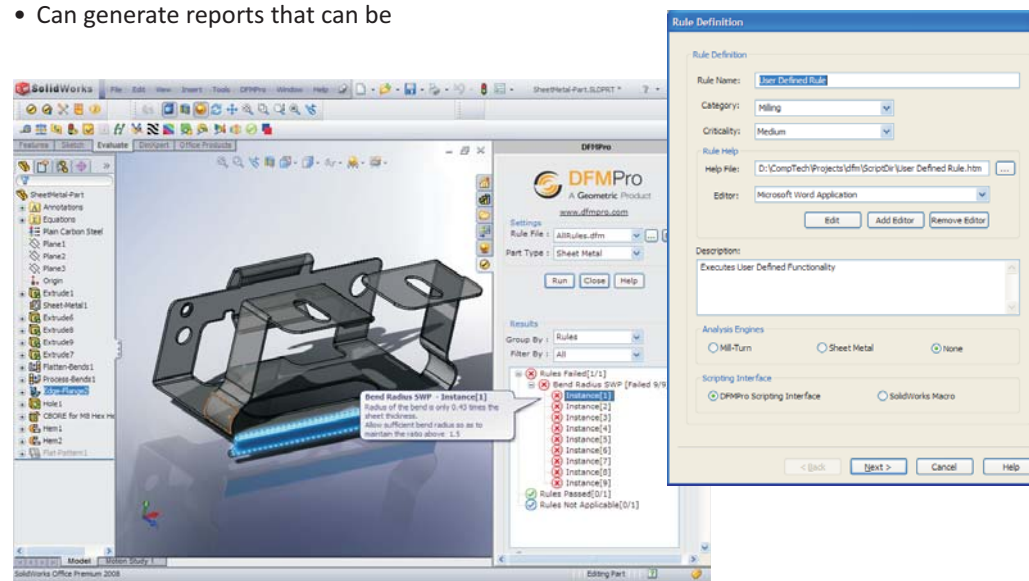
- Easy to learn and use - seamlessly integrated within CAD system
- Implements common manufacturability checks related to machining and sheet metal fabrication
- Provides reasons and suggests best practices in the context of detected manufacturability issues
- Parameters and criticality of rules can be configured using the Rule Manager
- Provides tools to create and use different rule files for various vendors and machine shops
- Can generate reports that can be

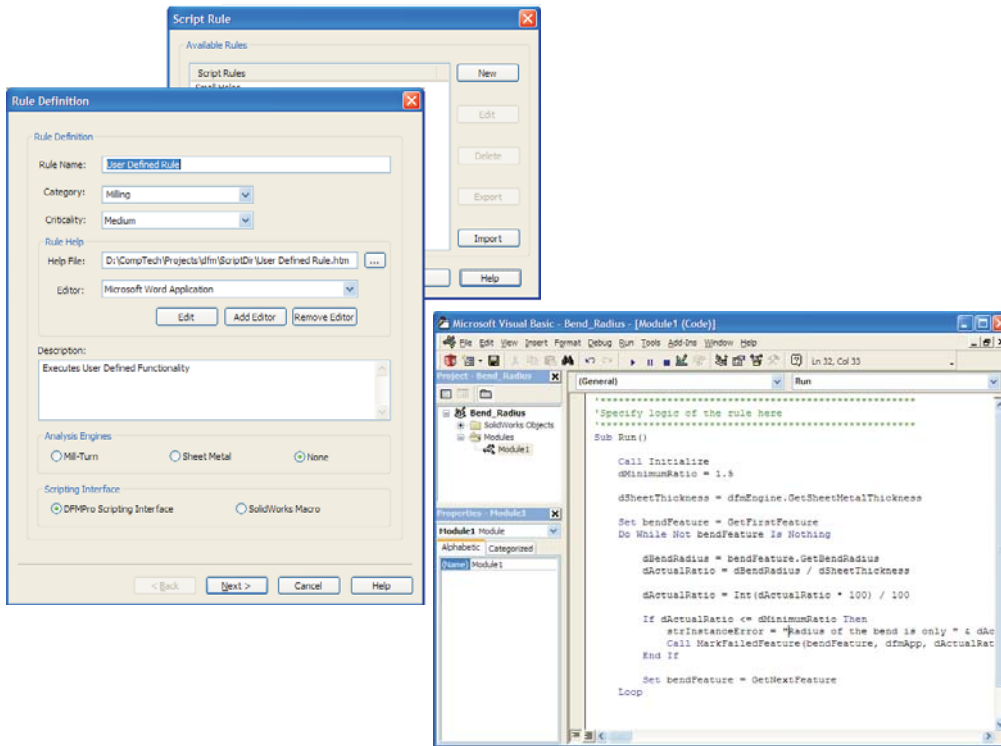
## DFMPro Customizability

DFMPro provides a framework to capture and reuse manufacturability expertise in the form of design rules. Using DFMPro, organizations get the ability to automate in-house DFM practices into their overall standard operating procedures. The existing set of manufacturability checks can be implemented as a set of DFM rules. Designs are validated against these rules for manufacturability.

## Salient Features

- Easily create user defined rules in VB Script or SolidWorks Macro editor
- Convert rules from in-house DFM guidelines and checklists into organization's proprietary DFMPro rules
- Package and share these rules with other departments, suppliers, and vendors
- Download and use best practices DFM rules from internet forums, in future
- Integrate DFMPro with PLM servers to enforce DFM reviews with consistency





## Summary

Design flaws are often 'easy to detect'. They are also 'difficult to fix' during downstream stages like manufacturing. Using rules based checks, DFMPRO enables designers to optimize their entire design through manufacturing process by predicting manufacturing problems early in the upstream design stage. DFMPRO considerably reduces design review steps. It facilitates product design that is compatible with desired manufacturing processes to ensure it is manufactured economically and meets the quality standards.

## Benefits of DFMPRO: Leads to Overall Cost Reduction

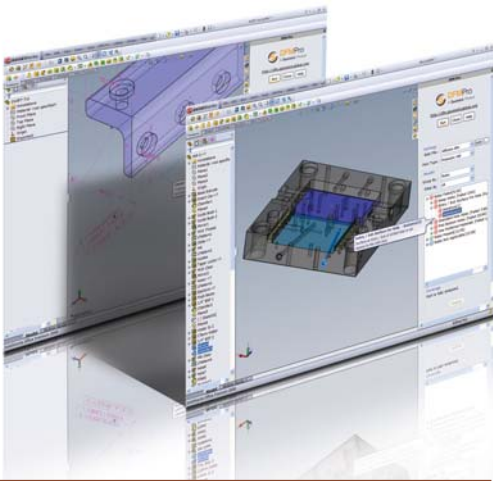
- **Catch mistakes early in the design stage:** DFMPRO reduces chances of costly design mistakes passing through, thus helping to achieve significant savings.
- **Ensures past mistakes are not repeated (especially by new design engineers):** DFMPRO can capture organization specific best practices, automate reviews and enforce those consistently.
- **Leverages experience of experts:** DFMPRO based solution provides systematic framework to capture, enforce and improve manufacturability knowledge. Experienced and retiring workforce can leave behind the legacy of best practices in reusable format, which can be enforced throughout the organization.
- **Decreases overall cycle time:** DFMPRO helps to eliminate or reduce number of iterations between design and manufacturing departments to shorten overall cycle time.
- **Facilitates on-the-job training of design engineers:** DFMPRO adds value as an effective training tool for design engineers. It presents best practices at a point where they are actually required. DFMPRO is effective tool for knowledge dissemination in an organization.

- Quick and interactive feedback while designing
- Integrated access to organization's knowledge repository
- Productivity improvements



- Assured level of design quality
- Ensures fulfillment of acceptance criteria or input filter for receiving jobs
- Saves downstream time and re-work

- Reduces cost
- Facilitates continuous process improvement through 'Manufacturability Knowledge' capture and reuse
- Supports 'Design anywhere – Manufacture anywhere' paradigm
- Minimizes time-to-market



## About Geometric

Geometric is a specialist in the domain of engineering solutions, services and technologies. Its Desktop Products and Technologies (DPT) business unit develops cutting-edge point productivity solutions that enhance design and improve manufacturing operations. The end-user products from Geometric include CAMWorks®, eDrawings® Publisher, DFMPro and GeomCaliper® and the key technologies are NestLib®, Feature Recognition (FR), GeomDiff and 3DSearchIT®. Geometric licenses these technologies to OEM partners and also designs and implements customized process solutions using these technologies for industrial customers.

For further details about Geometric's DPT business unit, please visit [www.geometricglobal.com/products](http://www.geometricglobal.com/products) or call +1.480.367.0132

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