



MANAGING AND REPORTING DFMA™ PRODUCT COST DATA

Developing the most cost effective products is a critical practice in today's economy. To be successful, companies need to know where the best opportunities to reduce costs lie. Boothroyd Dewhurst has been helping companies since the mid 80's to reduce their product costs while improving the manufacturability of their products with their DFMA™ (Design for Manufacturability and Assembly) cost modeling software tools. Convergence provides solutions that enhance the capabilities of the DFMA™ cost modeling tools by enabling the following activities:

- 1.) Batch refresh of past DFMA™ analysis results against different DFMA™ library inputs or more current library cost data (e.g. updated material costs), so engineers can do apples to apples cost comparisons of competitive designs based on the same library variables; saving days or even weeks of re-analysis, depending on the size of the DFMA™ files.
- 2.) Provide a reporting architecture that makes it easy for engineers to interrogate the DFMA™ data from their web browsers, allowing engineers to drill down into the DFMA™ results and uncover key cost data
- 3.) Present cost data in a hierarchical format so engineers can compare and analyze rolled up cost data at different levels in a product architecture
- 4.) Allow DFMA library management in order to compare manufacturing costs across different regions, manufacturing locations, or for different suppliers
- 5.) Develop a competitive benchmarking database allowing engineer's to compare their products against competitors while in the early stages of product development

Convergence's Data Storage, Validation, Publishing and Batch Refresh DFMA™ solutions; a scalable approach to managing cost data

Convergence Data Services has been managing engineering part meta-data for many years and has applications that can protect this data, relate this data to a customer's current part masters, and make this data easy to distribute. Convergence provides a database application called Design for Retrieval™ (DFR™) that allows companies to organize and store all of their part data. DFR™ is a flexible storage solution that is capable of managing data that is dynamic; i.e. subject to changes due to many outside business factors. DFR™ organizes data into specific categories making it easy to find information; effortlessly promoting a common nomenclature through the use of standard category attributes and properties.

DFR™ validates DFMA™ data output to ensure that engineers create a compliant DFMA™ analysis. Validation errors point to changes a DFMA™ cost modeling engineer needs to make in their analysis prior to publishing to the DFR database. This validation process ensures DFMA™ is being used in a standard and consistent manner, such that cost comparisons between products result in valid conclusions.

DFR's DFMA tools then publish compliant DFMA analysis files to the DFR database. The DFMA analysis data can be stored in a classification structure to make it easier to compare DFMA costs and easily find past DFMA files. As part of this publish process, DFMA files are moved from an unpublished directory location to a production location, while maintaining the DFMA file links for future use. The publishing utility supports batch processing of many DFMA files against a single set of DFMA library parameters to support cost data refresh requirements.



DFMA™ Reporting Architecture, effectively distributing DFMA™ cost data using SmartFind

Convergence provides a powerful web based search engine called SmartFind™ that works with DFR™. SmartFind™ is a search and custom reporting solution that makes it very easy to distribute DFMA™ cost data. Enabled by the relationships managed in the DFR™ database, users can easily find specific parts and their DFMA™ cost data, and compare their parts with competing designs or competitor products; all in a single query. Users can also check and track DFMA™ costs at different levels of a product architecture leveraging SmartFind™ cost rollup capabilities. Custom reports can be created with each search query and saved in an Excel spreadsheet for easy use and distribution. Benefits of the SmartFind architecture:

- 1.) Promotes side by side comparisons, highlighting key costs differences
- 2.) Provides links to critical DFMA™ files to promote re-use of existing cost models
- 3.) Maintains a history of DFMA™ cost data to analyze historical product cost trends
- 4.) Allows users to compare current costs to target costs, highlighting the areas for cost improvement
- 5.) Manages images and photographs of products, including competing benchmark designs
- 6.) Enables graphing of rolled up cost data, displaying current costs versus target costs

DFMA Integration Architecture

To have an effective DFMA™ costing environment your key applications need to be integrated and working together. DFR provides application integration tools and supporting applications to satisfy your particular costing architecture. Here are samples of the types of integrations that can be supported:

- 1.) Reading BOM or Product Architecture relationships from your PDM systems to support cost roll-up capabilities
- 2.) Supporting PDM DFMA file management to allow DFMA™ refresh and re-use requirements
- 3.) Integrating part number generation and cross reference capabilities to support competitive benchmarking
- 4.) Integrating ERP to capture current internal costs and enable should-cost comparisons

Schedule a Demo Today

Allow us to demo these capabilities that are critical to scaling your product costing activities. Contact us today at info@convergencedata.com or 203-364-8600 to discuss the most efficient solution that meets your company's product costing goals.