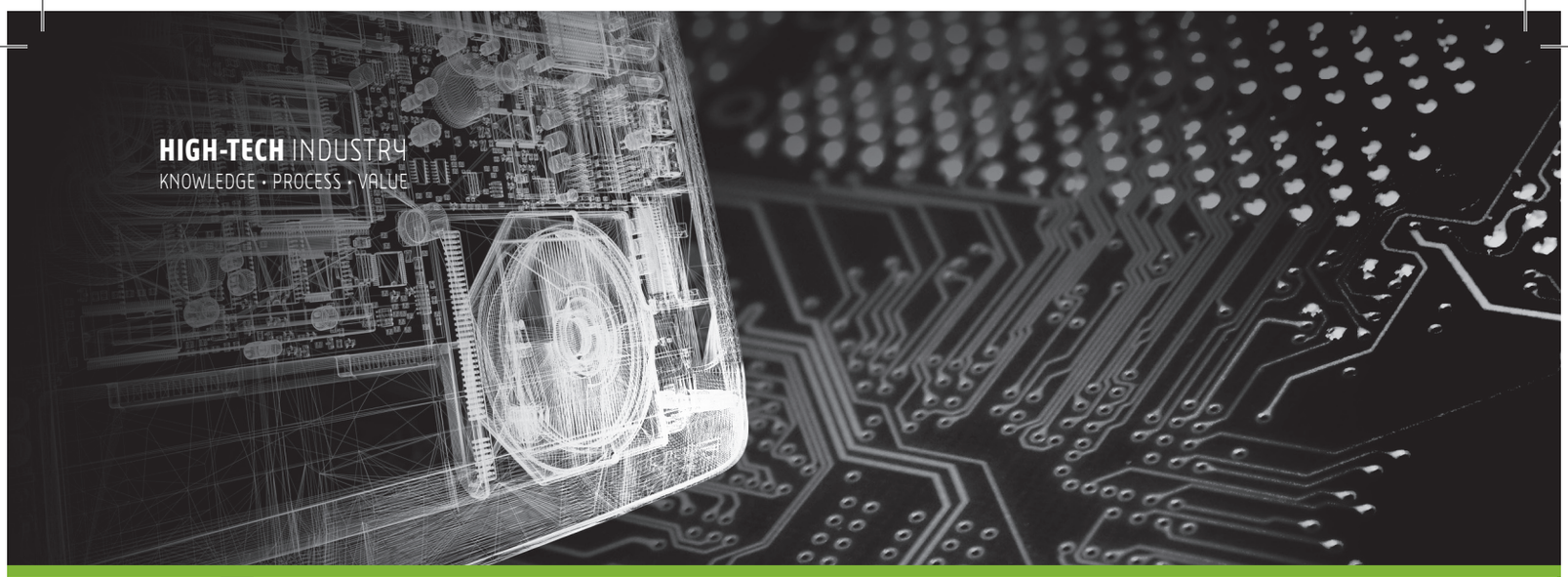


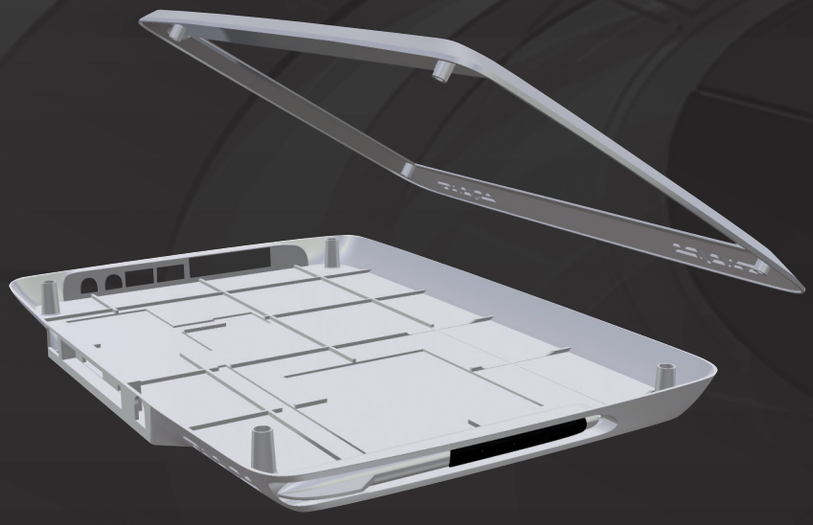
HIGH-TECH INDUSTRY
KNOWLEDGE • PROCESS • VALUE

Concurrent Product Housing Engineering Solution

ACCELERATING PRODUCT ENCLOSURE PART DEVELOPMENT PROCESS

This solution enables:

- Tracking and minimizing costs related to plastic and sheet metal design and manufacturing
- Using the same user interface and 3D model across the complete process from detail design to tooling design and Numerical Control (NC) tool path generation
- Process standardization by capturing, sharing, and reusing company rules, and expertise
- Dramatic reductions in design labor with rapid design for molded parts and automatic updates of associated tools
- Improved product quality by facilitating automatic design validations driven by knowledge capture and expert systems
- Shortening response times for Request-for-Quote (RFQ) by re-using valuable experience from previous projects



DASSAULT SYSTEMES

COMPLEX ELECTRONICS ENCLOSURES

The process of defining product enclosure parts can be tedious and inflexible, adding a significant time lag between engineering and manufacturing phases. The challenges are even greater when the enclosure parts are not made from the same material. Plastic, sheet metal, and composite parts demand different design methodologies to be implemented. Having a complete toolset that can address all product housing and packaging engineering challenges from design to manufacturing will accelerate design maturity and reduce late-cycle changes.

Concurrent Product Housing Engineering Solution Overview

As part of the Dassault Systèmes' comprehensive Product Lifecycle Management (PLM) V6 offering, the Concurrent Product Housing Engineering solution delivers an end-to-end process for engineers to accelerate the definition of product enclosure parts from part design to tooling design and manufacturing simulation. Advanced knowledge management capabilities enable manufacturing specifications to be captured and embedded in design templates, making it available to the engineers from early on in the design phase.

Mold and stamping dies automatically generated

Supported by dedicated DELMIA® products, mold and stamping dies can be automatically generated from a product design, saving the engineers hundreds of labor hours. Easy-to-use and innovative NC programming and machining simulation capabilities are available to reduce manufacturing time. The OEM and tool makers can now optimize the entire development process of product housing and packaging parts, from bidding preparation to design and manufacturing.

An intuitive solution for molded parts

The Concurrent Product Housing Engineering solution covers the entire development process of plastic parts and associated molds. To avoid inconsistencies and costly iterations, tooling design are created automatically within the same product definition as the part. CATIA® enables automatic core/cavity extraction from the product design and allows design modifications to be propagated automatically to the tools. Engineers can also simulate the filling process of injection of thermoplastic materials so that design and material usage can be optimized.

The Concurrent Product Housing Engineering solution includes:

- Plastic Molded Part Engineering
- Sheet Metal Design
- Concurrent Engineering Design
- Mold and Die Design
- Manufacturing Simulation (Plastic Mold Injection)
- NC Programming and Machining Simulation
- Technical Documentation

Dedicated features for rapid sheet metal process

This solution also offers features dedicated for rapid sheet metal part and associated tool generation, covering a wide range of processes for ruled and non-ruled sheet metal parts. Designers can benefit from already capitalized knowledge and are able to take into account manufacturing constraints in the design stage by using design templates. This helps ensure that sheet metal parts are fully compliant with company rules and standards for efficient manufacturing. As more and more parts are made of composite materials nowadays, functionalities are available to address composite part design to manufacturing processes.

Accelerates performance-based decisions

Dassault Systèmes provides an integrated system for design, analysis and manufacturing to support smooth transitions from 2D to 3D modeling, analysis and manufacturing. By enabling collaboration between engineers from various disciplines, Dassault Systèmes' PLM system accelerates performance-based decisions and reduces the need for costly and time-consuming physical prototypes and testing.

Animated and interactive 3D instructions

3D-based technical documentation can be generated quickly and kept in-synch with each design iteration. Animated and interactive 3D instructions help accelerate assembly and maintenance processes and reduce the time needed to train manufacturing or support personnel. The Concurrent Product Housing Engineering solution helps High-Tech companies track and minimize costs related to plastic and sheet metal part design and manufacturing, while capturing and re-using valuable knowledge from successful projects.

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