

Shape Design and Styling solutions



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CATIA—Shape Design and Styling solution set delivers innovative and fun-to-use products for the creation, control and modification of engineered and freeform surfaces.

Its highlights include:

- **The most complete and integrated portfolio for the creation of advanced shapes—**

The user can create shapes based on a physical mock-up or styled sketches by virtue of the Reverse Engineering solution. It covers design processes for preliminary to detailed parts, which require consequent surfacing with Mechanical Shape products. It also describes mechanical shape assemblies with Automotive Body-In-White Fastening, such as body panels and crafts harmonious aesthetic shapes with the Freestyle product set. Generate high quality photo-realistic views and dynamic renderings in real time with visualization tools.

- **General to specialized requirements for all industry segments are catered for—**

A complete P1 platform delivers high levels of productivity and efficiency to all manufacturing industries. High range technologies enable powerful and process-centric skills.

- **Surface design made accessible to everyone—** These particularly easy-to-use tools for surfaces and shapes are for parts designed by non-surface specialists or advanced shape designers looking for a complete surfacing tool set.

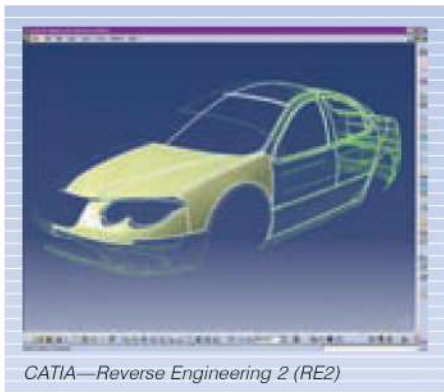
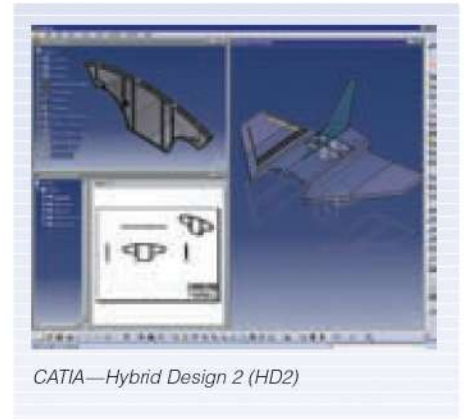
- **The most flexible modification schemes—** Change management is built into the solution's design, providing the user with shorter conceptual testing times. The associativity with other CATIA V5 domains also allows for an efficient model for manufacturing management.

- **Harnessing the power of knowledge-driven shapes—** These solutions capture design intent as the design is built with a combination of interactive shape design and styling functions along with the solution paradigm of embedded knowledge. This provides the power of explicit rules that define product behavior. As a result, these solutions act as an expert advisor to guide users through tasks, warning them of rule violations and conflicts to achieve automated design generation and reduced risk.

CATIA—Hybrid Design 2 (HD2)

Provides in one seat all the necessary tools to perform advanced 3D design of mechanical parts, assemblies and complex shapes in the context of the full scale digital mock-up, and generation of production drawings.

As a CATIA P2 configuration, HD2 offers advanced 3D orientation features, such as fly-through navigation and advanced specification graph display and manipulation. Customers benefit from its built-in interoperability with other CATIA V5 solution sets. It is the configuration of choice for existing CATIA V4 customers because it offers integration tools that are compatible with V4 and data interfaces to the most frequently used industry standards. Customers also benefit from a seat definition that can be seamlessly upgraded by the addition of shape design capabilities, allowing for the design of more complex parts using hybrid-modeling methodologies.



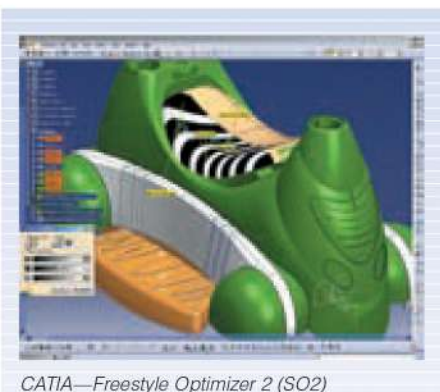
CATIA—Reverse Engineering 2 (RE2)

Provides all of the necessary tools to cover the complete surface reverse engineering process. From the import of digitized data, including clean up and tessellation, to the recovering and finishing of surfaces, RE2 allows the user to quickly visualize design study alternatives.

RE2 provides the best technology available for managing potentially huge meshes and faithfully recovering shapes with high quality results. The RE2 set of easy-to-use capabilities allows manufacturing companies to, not only shorten the design validation phase, but also to enhance the quality of CAD data in the preliminary design process.

CATIA—Freestyle Shaper 2 (FS2)

Provides all of the necessary tools to address intuitive, dynamic surface sculpting and real-time diagnosis requirements, as well as the production of associative drawings. In addition, it offers integration tools that are compatible with CATIA V4. Customers benefit from a seat definition that can be seamlessly upgraded by adding dynamic multi-surface deformation and real-time diagnosis functions.



CATIA—Freestyle Optimizer 2 (SO2)

Provides all of the necessary tools to address the advanced surface sculpting and real-time diagnostic requirements for automotive or Class-A parts, as well as the production of associative drawings. In addition, it offers integration tools that are compatible with CATIA V4. Customers benefit from a seat that can be seamlessly upgraded by adding dynamic multi-surface deformation and real-time diagnosis functions to its definition.