

C A T I A F O R D E S I G N

DS
CATIA

I M A G I N E

From ideation to concept:

Start your 3D ideation from scratch as well as from 2D sketches.

Combine the virtual clay modeling approach of Imagine & Shape with free-form & parameter-controlled surfaces.

Produce exact surfaces and solids outputs, for sharp and efficient communication within and without your project team, ensuring design intent understanding by all project actors.

C R E A T E

Further in Detailed Design:

You are the pilot to push your concept forward, taking advantage of CATIA best-in-class hybrid modeling to reach new summits. Detail your product in assembly context, with immediate access to movement simulations.

Any new feature required by the marketing? Perform expected modifications on key components, and update impacted ones on-demand.

Create production drawing as you go. Decide for 3D design associativity when relevant.

E X P E R I E N C E

Live experience as part of your Design:

From concepts to production decision, place your products in life-like conditions before anything physical exists.

Create real time and calculated realistic renderings as decision support tools, and give more impact to your communication.

Validate your design options with early simulations. Kinematics, stress, thermal or vibration analysis lead you to unexplored innovative options, with valuable energy savings.

Build new experiences, and ensure customer satisfaction preparing user's manual and maintenance guide up-front.

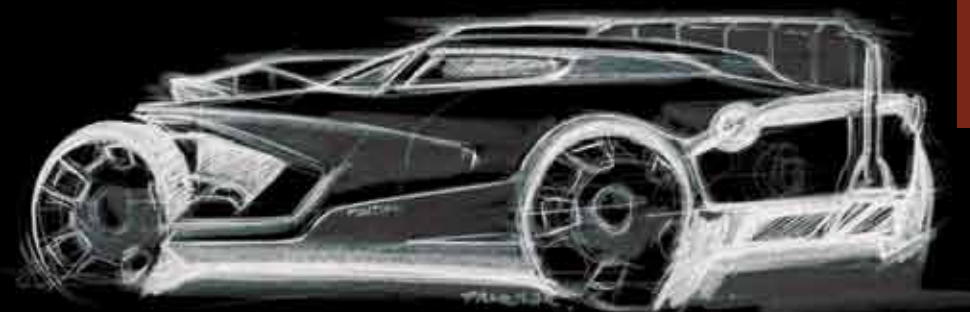
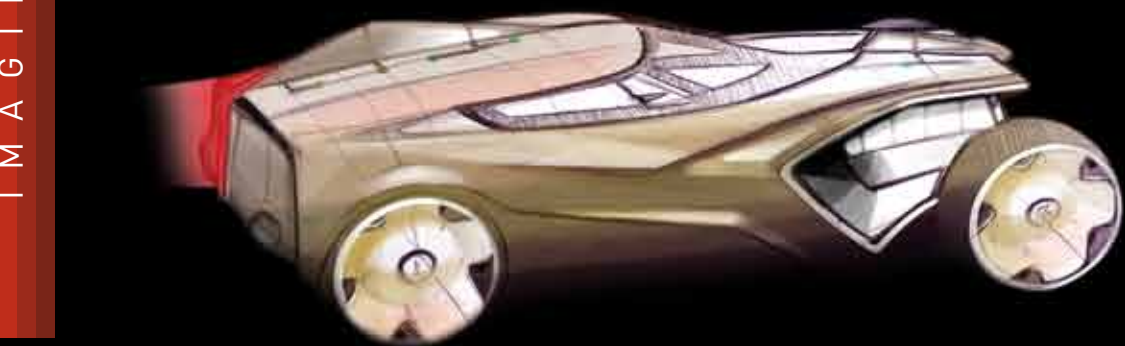
S H A R E

Share & Collaborate:

3D becomes your common language within and without your company. Share your 3D Design using 3DXML format, via email or via office documents.

Establish a project-oriented collaboration platform for all involved actors: A single place to store & find all project-related data.

Take advantage of your company know-how: capitalize and re-use where relevant, in an optimized way.



FROM IDEATION TO CONCEPT



CATIA Freestyle Sketch Tracer

Integrate your 2D design sketches within your CATIA 3D environment. An intuitive toolbox guides you to position your sketches in the background and adjust their size, leveraging their content in 3D as you enter your CATIA creative modeling.

CATIA Imagine & Shape

Have more ideas coming to life! Dedicated to design concept creation, CATIA Imagine & Shape breaks the traditional surface modeling approach with a virtual clay paradigm. Beyond traditional modeling tools, and whatever your domain, it represents a key competitive advantage to convey the emotional aspect of your creations, and to feed downstream product development process phases with an exact shape definition. Whatever your modeling skill level, from beginner to 3D expert, its intuitive user interface provides you with the immediate access to professional results.

CATIA Free Style Curves & Surfaces

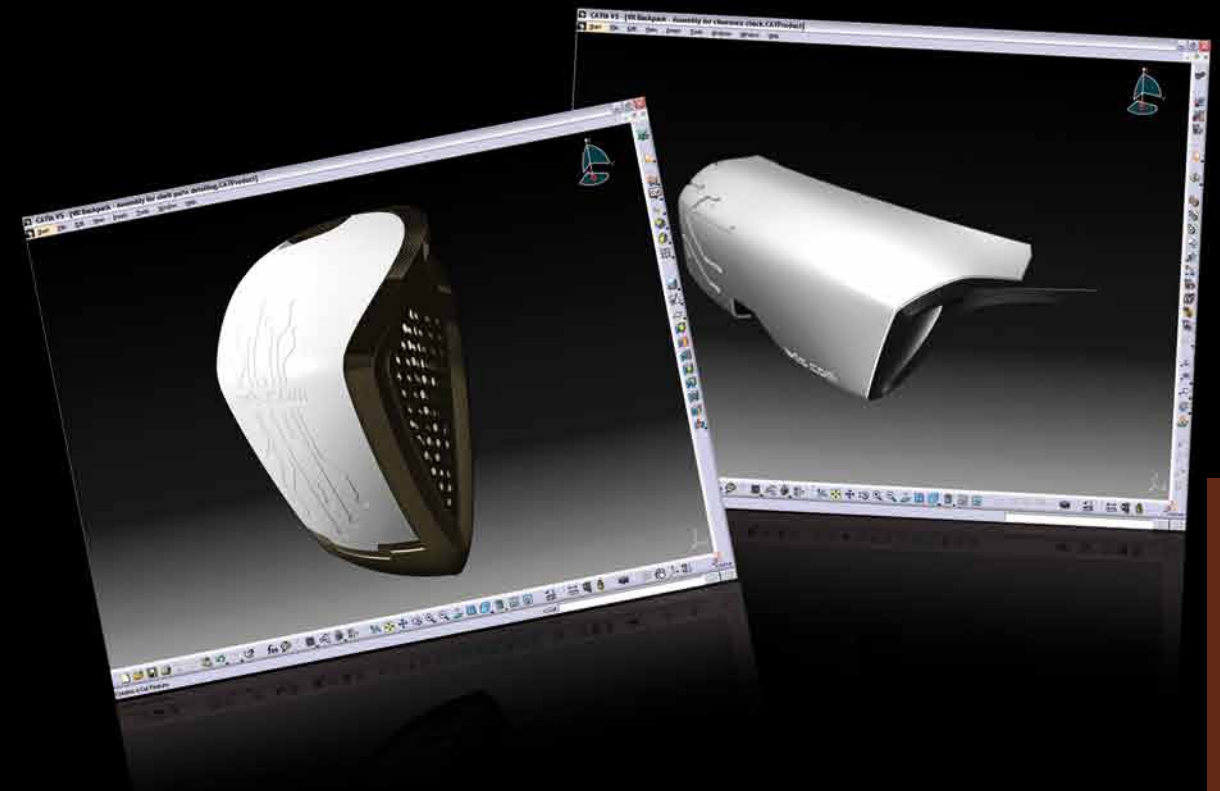
A powerful and easy to use set of curve and surface-based applications helps you define all kinds of shapes you may need to express your creativity. Create, combine, smooth, trim curves and surfaces. Check their quality on the fly, with real time extensive industry-oriented diagnosis tools.

CATIA Wireframe & Surfaces

Create construction elements during the preliminary design phase, and enrich your existing 3D design with fundamental wireframe and surface features. An intuitive feature-based approach contributes to the productivity of your design environment. Capture design methodologies and specifications on demand for re-use.

CATIA Generative Shape Design

Assemble your multiple wireframe and surface features altogether to design simple to complex hybrid parts. An extensive set of tools supports your production quality expectations. Set-up associativity on-demand for easy and efficient design change propagation. Concentrate on high value-added tasks with advanced knowledge-based capabilities like powercopy to capture and instantiate frequently used elements.



FURTHER IN DETAILED DESIGN

CATIA Part Design

Easy creation and easy modifications, this is what CATIA solid modeler immediately provides to your teams. Take advantage of a unique combination of feature-based design with a boolean approach. Whatever your preferred design methodology, experience a highly productive and intuitive mechanical design environment. Other CATIA applications such as Assembly Design, Generative Drafting, Wireframe & Surfaces leverage your CATIA Part Design data as you move forward in your project.

CATIA Assembly Design

Design in assembly context and manage your assemblies in a concurrent engineering spirit. Either start from your assembly structure (top-down), or assemble individual components together (bottom-up). Dynamically drag parts into position and reorder the assembly structure. Place assembly constraints, check collisions and clearances. Access your in-house standard components as well as external ones through catalogs. Stay focused on design and innovation: key outputs such as exploded views and bill of materials are generated automatically for you.

CATIA Functional Molded Parts

Experience unmatched productivity and flexibility to design your cast, molded and forged parts as well as related tooling. The order in which features are created has no impact on the design itself, for more freedom in that phase. Such a history-free approach for defining the complete functional specification for both parts and tooling represents a breakthrough to optimize your design-to-manufacturing cycle.

CATIA Generative Drafting

Create associative drawings from your CATIA 3D design, whatever it is made of (surfaces, solids, hybrid parts, assemblies...), in a single-click operation. Automatically generate 3D dimensions with full placement control. Add annotations anytime with standards-based dress-up features. Drawings associativity with 3D Design provides you with added flexibility for concurrent design and drawing production.

For a better world:

How about integrating key concerns such as energy efficiency, emissions, and product recycling specifications from the early stages of your product development process?

Environment protection is one of our shared objectives. CATIA federates your corporate assets, enabling all project actors to capitalize and re-use your eco-design practices, all the way from first project ideas to product recycling.

imagine use of new materials and processes

imagine new solutions

get inspired by nature

holistic simulation

enforce environmental compliance

remove waste and complexity

FOR A BETTER WORLD

CATIA Knowledge Expert

How about capturing your company best practices and standards to take advantage of them when and where relevant ? In addition to this, CATIA Knowledge Expert can be used to secure your design compliance with established standards. The report outputs identify standards violations and help you to implement necessary corrections.

CATIA Product Knowledge Templates

Create your own CATIA intelligent feature, part and assembly templates, and instantiate them in a fully adaptive way, taking advantage of the CATIA catalog infrastructure. Other groups within your company can re-use such encapsulated knowledge. At the same time, you can control the access to the author's intellectual property, protecting know-how while still facilitating reuse.

This significantly improves design productivity and promotes best design methodology sharing.

3DXML format

3D XML is the most efficient solution for you to share CATIA 3D data within and beyond CATIA users community. Generate 3D XML files anytime from your CATIA 3D models, and share them via email or via MS office documents. Download the 3DVIA player from DS 3DVIA website, install it, and experience easy viewing, rotation, zooming and manipulation. Easy multi-purpose 3D data sharing and reuse goes way beyond PLM applications.

CATIA Iges & Step Interfaces

Easily interact in a heterogeneous design environment, and exchange data in a neutral format. Perform reliable bi-directional 2D and 3D data exchange between the different systems with direct and automated file access. CATIA offers you a homogeneous user interface for all supported formats.

3D AS A UNIVERSAL COLLABORATION LANGUAGE

CATIA STL Rapid Prototyping

Create Stereolithography (STL) files from your CATIA concepts and products in a fast and accurate way. Import existing files, display the mesh for quality check, and improve the mesh quality with advanced tools when needed. Generate thin offsets to obtain watertight solids. Export your parts meshes as standard binary STL files for rapid prototyping machines.

CATIA Digitized Shape editor

Import digitized data, and perform clean up, tessellation, cross sections, character line, shape and quality checking with real time diagnosis. This product takes place at the beginning of your reverse engineering cycle, just after the digitizing machines and before downstream processes covered by dedicated CATIA V5 applications. The inspection process can be directly handled, comparing clouds of points with design models.

CATIA Team PLM

As an industry actor in global competitive market conditions, you keep focused on innovation while managing your portfolio and the associated products lifecycle to deliver them "right to market". CATIA Team PLM is a tailored solution to meet your specific needs, managing your product's lifecycle end to end, helping your company to keep up with its full potential. CATIA TEAM PLM can cut product development time by half with its ease of use and built-in analysis/simulation technology. Your product's achievability prior to manufacturing is secured, saving time and money. A role-based approach provides a clear competitive advantage at all stages of your product development.

LIVE EXPERIENCE AS PART OF YOUR DESIGN



CATIA Real Time Rendering

Leverage your concepts and products with materials technological specifications to generate dynamic realistic renderings. Create your textures either from scratch, from imported digital images, or from the CATIA library. Apply materials to your parts, and maintain associativity with the material library. Real-time display computations quickly convert models to realistic renderings.

CATIA Photo Studio

Generate high quality photo-realistic images and animations from your digital products, using an extremely powerful ray-tracing engine. Your images realism is enhanced by real soft shadows as well as accurate light reflections and refractions. Your scene settings are kept for reuse.

At any stage, the life-like renderings of your 3D models provides you with a significant competitive advantage, leveraging your concepts and products both in internal communications (decision making reviews) and external ones (customer presentations, media and press communications, web sites).

CATIA Generative Part Stress

Ensure that your concepts and products meet their design requirements, and better understand how your design behaves under a variety of conditions. Accurately calculate displacements and stress within your parts and assemblies. Access vibration characteristics from parts natural frequencies and associated mode shapes calculations. For this, your design skills are perfectly adequate, as the user interface is the CATIA one you are familiar with. Perform your analysis directly on solids, surfaces and wireframe parts. The underlying finite element mesh is automatically created and adjusted to provide accurate results without any manual intervention.

3D VIA Composer (Optional)

Create interactive product documentation, animation, technical illustrations and more! By reusing your digital product definition data including 3D design data and bills-of-material information, 3DVIA Composer revolutionizes the product documentation process.

With its easy-to-use, desktop content-creation system, 3DVIA Composer effectively automates your document-based processes such as assembly instructions, customer service procedures, installation documents, field service repair manuals, User manuals and training, marketing materials

For more info: <http://www.3ds.com/products/3dvia/3dvia-composer>

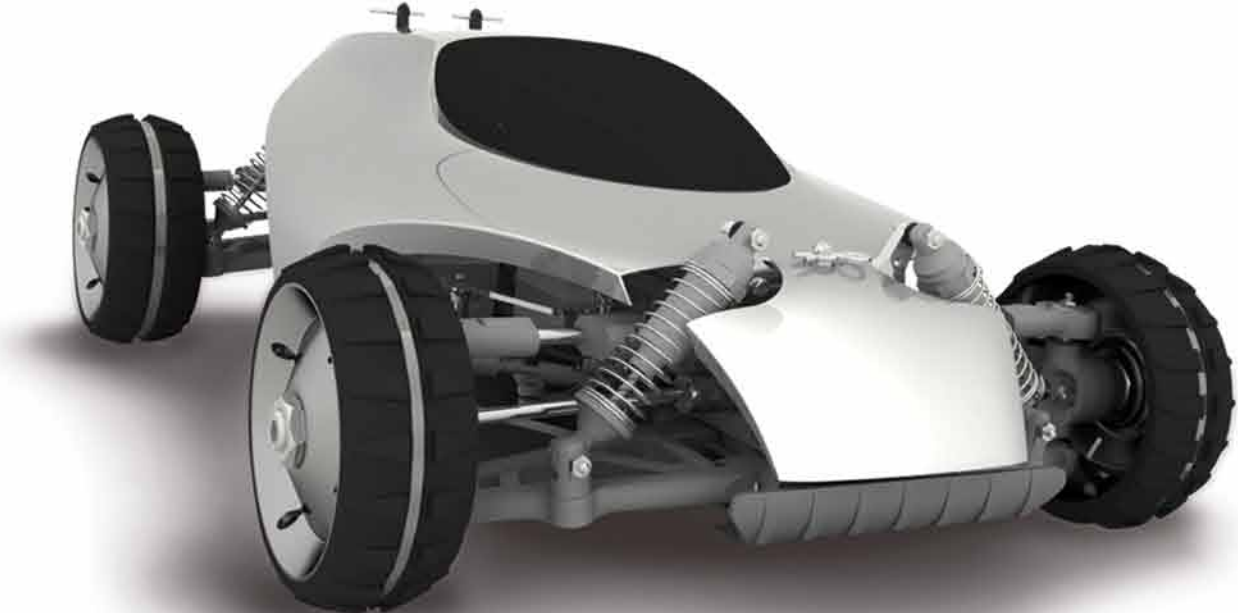
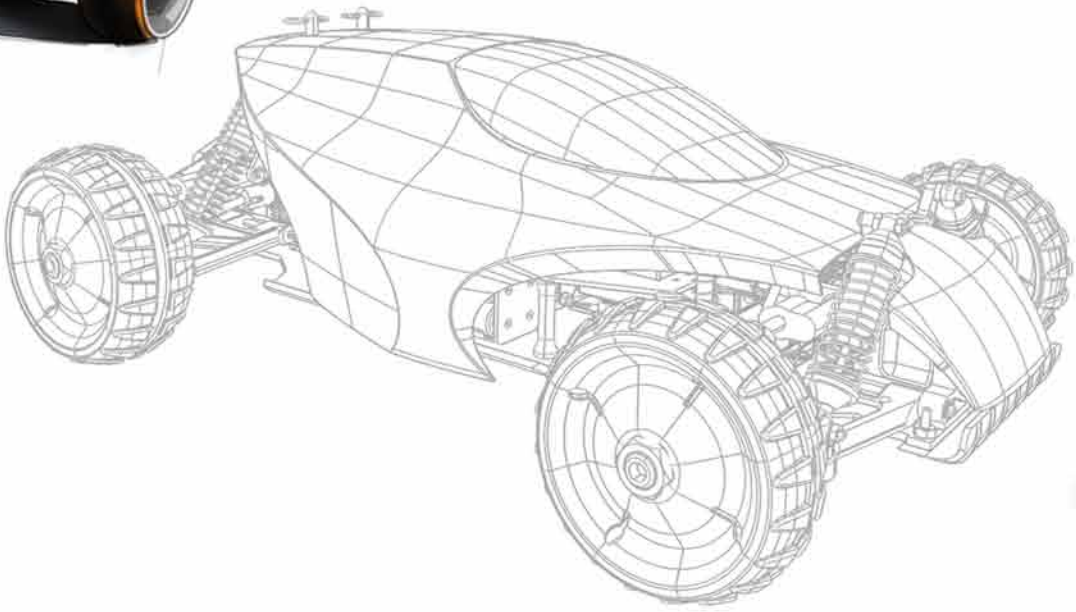
3D VIA Virtools (Optional)

Develop exceptional interactive, real-time applications!

3DVIA Virtools is a complete development and deployment platform with an innovative approach to interactive 3D content creation. The 3DVIA Virtools production process facilitates prototyping and robust development up to large-scale, immersive or online, lifelike experience delivery. Breaking away from traditional environments, 3DVIA Virtools solutions help you meet your production requirements on schedule, while significantly reducing production costs and overall risks. 3DVIA Virtools' ground-breaking software solutions suit a wide range of production and trade-specific application needs, like design reviews, shopping experiences, simulation-based training, advergaming, sales configurators and more.

For more info: <http://www.3ds.com/products/3dvia/3dvia-virttools>

FOR EACH STEP OF THE DESIGN PROCESS,
SCALABLE SOLUTIONS TAILORED TO YOUR NEEDS



	INSPIRED PACKAGE	CREATIVE PACKAGE	ULTIMATE PACKAGE
IMAGINE	CATIA Free Style Design	CATIA Free Style Design	CATIA Free Style Design
	CATIA Imagine & Shape	CATIA Imagine & Shape	CATIA Imagine & Shape
	CATIA Freestyle Sketch Tracer	CATIA Freestyle Sketch Tracer	CATIA Freestyle Sketch Tracer
CREATE	CATIA Product Knowledge Templates	CATIA Product Knowledge Templates	CATIA Product Knowledge Templates
	CATIA Generative Drafting	CATIA Generative Drafting	CATIA Generative Drafting
	CATIA Generative Shape Design	CATIA Generative Shape Design	CATIA Generative Shape Design
	CATIA Wireframe & Surfaces	CATIA Wireframe & Surfaces	CATIA Wireframe & Surfaces
SHARE	CATIA Knowledge Expert	CATIA Knowledge Expert	CATIA Knowledge Expert
	CATIA Functional Molded Part	CATIA Functional Molded Part	CATIA Functional Molded Part
	CATIA Assembly Design	CATIA Assembly Design	CATIA Assembly Design
	CATIA Part Design	CATIA Part Design	CATIA Part Design
	3DXML Format	3DXML Format	3DXML Format
	CATIA STL Prototyping	CATIA STL Prototyping	CATIA STL Prototyping
	CATIA Iges & Step Interfaces	CATIA Iges & Step Interfaces	CATIA Iges & Step Interfaces
	CATIA Digitized Shape Editor	CATIA Digitized Shape Editor	CATIA Digitized Shape Editor
	CATIA Team PLM	CATIA Team PLM	CATIA Team PLM
EXPERIENCE	CATIA Photo Studio	CATIA Photo Studio	CATIA Photo Studio
	CATIA Real Time Rendering	CATIA Real Time Rendering	CATIA Real Time Rendering
		CATIA Generative Part Stress	CATIA Generative Part Stress
		3DVIA Virtools	3DVIA Virtools
		3DVIA Composer	3DVIA Composer



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