Infrastructure solutions

CATIA V5

CATIA V5 is the leading product development solution for all manufacturing organizations, from OEMs, through their supply chains, to small independent producers. The range of its capabilities allows CATIA V5 to be applied in a wide variety of industries, such as aerospace, automotive, industrial machinery, electrical, electronics, shipbuilding, plant design, and consumer goods, including design for such diverse products as jewelry and clothing.

CATIA V5 is the only solution capable of addressing the complete product development process, from product concept specifications through product-in-service, in a fully integrated and associative manner. It facilitates true collaborative engineering across the multi-disciplinary extended enterprise, including:

- *Style and form design*
- *Mechanical design and equipment and systems engineering*
- *Managing digital mock-up*
- *Machining*
- *Analysis*
- *Simulation.*

CATIA products are based on the open, scalable V5 architecture.

By enabling enterprises to reuse product design knowledge and accelerate development cycles, CATIA helps companies speed-up their responses to market needs and frees end-users to focus on creativity and innovation.

Infrastructure solutions

Based on breathtaking technology and open industry standards, CATIA V5 Infrastructure solutions provide a highly scalable and open platform for collaborative product development.

Some of the highlights include:

- **The next generation platform for 3D PLM—***This suite of solutions provides built-in knowledgeware applications, fun-to-use user interfaces and core object management and visualization services.*

- **Natively scalable solutions—***From entry-level P1 to P3 platforms, this solution set comprises highly specialized applications for UNIX® and Windows™ operating systems.*

- **A natural path from CATIA V4 to CATIA V5—***Core infrastructure architecture enables a smooth transition from CATIA V4 to V5, safeguarding productivity and protecting investments.*

- **A true collaborative environment—***These products offer interfaces with the most common standard CAD formats, to optimize communication throughout the supply chain.*

- **Integrated solutions for product data management—***Solutions for real concurrent engineering, easy change management and secured vault.*

CATIA—Object Manager 1 (CO1)

Products

Object Manager products

The Next Generation CATIA Solution Version 5 is built on a totally new scalable architecture which combines the best of the current CATIA technologies with new generation standards. It offers total single system image across Native Windows and UNIX environments, and an extensible environment capable of supporting all aspects of the Digital Enterprise, from Digital Mockup, Digital Manufacturing, to Digital Operation and Digital Plant definition.

The Version 5 system architecture offers a unique scalability environment which gives to customers the choice of selecting the optimum set of solutions, given the CAD specialization of the intended users, the complexity of the project and corresponding functional requirements. For selecting the right platform, there are three possible choices CATIA-P1 (CO1), CATIA-P2 (COM) and CATIA P3 (CO3) installations.

CATIA—Object Manager 1 (CO1)

CATIA—Object Manager 1 provides a highly scalable and open platform for collaborative product development based on breath-taking technology and open industry standards.
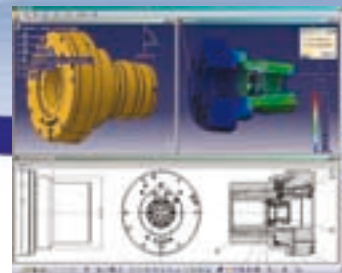
CATIA—Object Manager 2 (COM)

CATIA—Object Manager 2 provides a highly scalable and open platform for collaborative product development, which combines the best of the current CATIA technologies with new generation standards.

CATIA—Object Manager 2 (COM)

CATIA—Object Manager 3 (CO3)

CATIA—Object Manager 3 provides a highly scalable and open platform for collaborative product development with ultimate 3D technology to immerse you in even easier to use and advanced 3D simulation for higher productivity.

CATIA—Object Manager 3 (CO3)

CATIA—COM 1 to 2 Extension (C12)

This product, when installed on top of any P1 configuration, acts as an upgrade of CATIA infrastructure from P1 platform to P2 platform and allows users to install P2 sharable or add-ons products in addition to it. The evolution from P1 platform to P2 platform can be made at any time after initial installation, on all workstations or on a limited set of workstations dedicated to specific tasks.
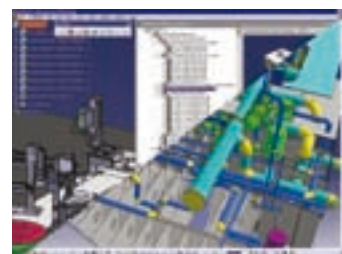

CATIA—COM 1 to 2 Extension (C12)

Products

CATIA—Instant Collaborative Design 1 (CD1)

Performing a breakthrough, Instant Collaborative Design enables informal concurrent engineering for parts or surfaces that can be used in any domain. Designers can share features in order to create concurrently parts or exchange know-how in a synchronous or asynchronous mode.

Instant Collaborative Design is fully scalable from peer to peer for local communications to client/server mode which benefits from standard communication solutions integration.

Digital Product Rights Manager 1 (RM1)

Allows a company to control and protect its Intellectual Property (IP) when exchanging documents. Distributed supply chain organizations need a way to exchange data in a secure manner.

Digital Product Rights Manager 1 lets users apply and enforce digital rights on V5 documents, enabling them to secure and control distribution and exchanges. Digital Product Rights Manager 1 provides users with a comprehensive set of rights enabling the handling of simple as well as more complex scenarios. It is completely integrated into the Dassault Systemes' V5 architecture and based on Microsoft Windows Rights Management Services (RMS) technology

CATIA—V4 Integration 1 (V41)

Helps existing CATIA Version 4 customers take advantage of Version 5 while preserving their investment in V4 data.

CATIA V4 Integration 1 is part of every P1 CATIA platform configuration. It offers basic integration features which make seamless hybrid installations possible, involving both applications from CATIA Version 4 and applications from CATIA Version 5, while benefiting from data compatibility between the two product lines.
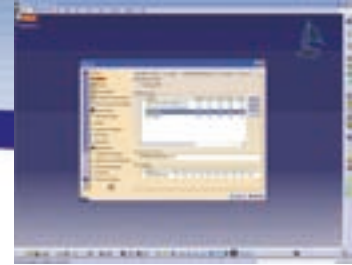
CATIA V4 Integration 1 produces seamless data integration between CATIA V4 and V5.

Enabling V5 users to browse V4 models and seamlessly use hybrid V4/V5 geometry in V5 applications by referencing V4 models as well as allowing V4 2D data conversion into V5 2D data.
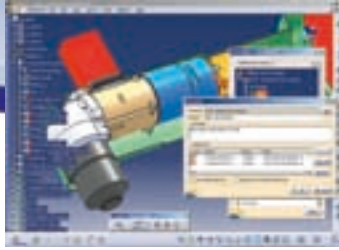
CATIA—Instant Collaborative Design 1 (CD1)

Digital Product Rights Manager 1 (RM1)

CATIA—CADAM Interface 1 (CC1)

This product provides the user with an integrated capability to share 2D drafting information between CATIA CADAM Drafting (CCD) and V5 Drafting products.

This integrated capability provides existing CCD users with the flexibility to easily integrate the V5 CATIA product portfolio into their environment, while maintaining their current practices and procedures based on their CCD product use.

CATIA—IGES Interface (IG1)

Helps users working in a heterogeneous CAD/CAM environment to exchange data in a neutral format. This utility supports IGES Version 5.3 and provides naming management to map IGES and CATIA identifiers. Users can perform reliable bi-directional 2D and 3D data exchange between dissimilar systems. The access can be done directly with file-open/ file-save capabilities or automated by batch utility.

CATIA—STEP Core Interface 1 (ST1)

CATIA STEP Core Interface helps you exchange data through a neutral format in a heterogeneous CAD/CAM environment. You can interactively read and write data in STEP AP214 and STEP AP203 data formats allowing reliable bi-directional data exchange between dissimilar systems.

The access can be done directly with file-open/file-save capabilities or automated by batch utility.

CATIA—Product Data Filtering 1 (DF1)

helps companies to manage and protect their intellectual property (IP) by providing filtering mechanism that can be integrated into their data exchange processes. OEMs, supply chain members, and risk sharing partners are provided with only the data they need to share to complete their product definition operations. As a result, company knowledge is well protected without impairing data exchange requirements. The product provides filters for controlling part and product structure data exchange.

DF1 can be invoked in either an interactive or batch mode. The batch mode is available through a command line with filtering options passed as parameters.
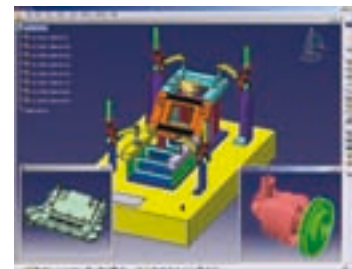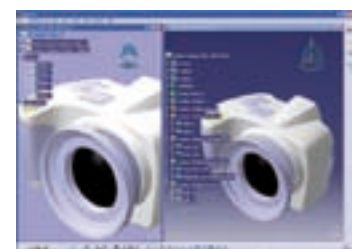

CATIA—V4 Integration 1 (V41)

CATIA—CADAM Interface 1 (CC1)

CATIA—IGES Interface (IG1)

CATIA—STEP Core Interface 1 (ST1)

CATIA—Product Data Filtering 1 (DF1)

Products

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 1 (EW1)

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 1 is the P1 product used by subcontractors to export or import CATIA V5 product data, which was previously delivered from an OEM ENOVIA site, using ENOVIAVPM Supply Chain Engineering Exchange 2 (EWE) product.

With ENOVIAVPM Supply Chain Engineering Exchange 1 subcontractors are able to manage CATIA V5 product data together with the associated CATIA V5 links without access to the OEM ENOVIA database. With EW1 subcontractors are able to recover a CATIA V5 CATProduct from OEM mobile files, to work one demanded changes and send them back.

CATIA—PPR xPDM Gateway 1 (PX1)

Provides tools to build a comprehensive Gateway Interface between CATIA V5 and any PDM for fluid import/export of data in a heterogeneous environment. PX1 is a build-time/run-time engine with a series of API's that a customer or 3rd party can use to build their own interface to other PDM systems.

The export/import infrastructures or 'engines' consist of several components, each has a specialized function to perform on the exchanged data: extraction, validation, mapping and reconciliation. Each component can be

specifically tailored to address various desired exchange format characteristics and to implement exchange rules.

User has the ability to manage and streamline all product related information throughout the product life cycle whatever his PDM systems are, while preserving integrity and reliability of data through synchronization.

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 2 (EWE)

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 2 supports the ability to Export/Import CATIA V5 product data and associated CATIA V5 links from the OEM site to the subcontractors, which are not connected to the OEM ENOVIA database.

Thanks to Supply Chain Engineering Exchange 2, the OEM defines a work context in ENOVIAVPM V4 or V5, which is used to generate and deliver a workpackage to the supplier. The supplier is now able to import this data with CATIA—ENOVIAVPM Supply Chain Engineering Exchange 1 (EW1).

After finishing all data modifications or creations requested by the OEM, the supplier sends back the updated 'mobile' files. The OEM loads the data provided by the supplier in CATIA V5 and imports them in ENOVIAVPM V4 or V5 with CATIA ENOVIAVPM Supply Chain Engineering Exchange 2 (EWE).

MultiCAx AD (Autodesk) Plug-in (DAL)
MultiCAx SE (SolidEdge) Plug-in (DEL)
MultiCAx IGES Direct Plug-in (DGL)
MultiCAx SolidWorks Plug-in (DSL)
MultiCAx STEP Direct Plug-in (DTL)
MultiCAx ID (I-deas) Plug-in (IDL)
MultiCAx PD (Pro/ENGINEER) Plug-in (PDL)
MultiCAx UD (Unigraphics) Plug-in (UDL)

The MultiCAx products provide interoperability functions for CAD data to enable MultiCAx design-in-context, visualization. The MultiCAx products provide the ability to handle proprietary data from a large number of CAD systems. The MultiCAx products enable the import of 3D data from I-DEAS, Pro/ENGINEER, Unigraphics, SolidEdge, Inventor, SolidWorks, ACIS, Parasolid, DELMIA, CATIA Version 4, CATIA Version 5 and various other formats (IGES, STEP, STL, SLP, OBJ Wavefront, VRML, I-DEAS IF). The MultiCAx products also support 2D data from AutoCAD (DXF) and Unigraphics.

The MultiCAx products may be used in conjunction with ENOVIA Portal products to visualize a multiCAx digital mock-up, with ENOVIAVPM and ENOVIA V5 to support management of product structures that include multiCAx parts and in conjunction with CATIA to enable data coming from non-CATIA systems to be used in a hybrid product development environment.

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 1 (EW1)

CATIA—PPR xPDM Gateway 1 (PX1)

CATIA—ENOVIAVPM Supply Chain Engineering Exchange 2 (EWE)

MultiCAx Plug-in Products (DAL, DEL, DGL, DSL, DTL, IDL, PDL and UDL)

CATIA—STRIM/STYLER to CATIA Interface 2 (STC)

CATIA—V4 Integration 2 (V4I)

When these products are used with ENOVIAVPM or ENOVIA V5, they enable original multiCAx assemblies and/or part definition data to be stored as documents in the ENOVIA vault. A stored assembly can be extracted from the vault and modified in the original editor. Changes can then be stored back into ENOVIA. Assemblies made up of mixed CATIA and other CAx geometry can be loaded into CATIA V5 or ENOVIA DMU from ENOVIAVPM or ENOVIA V5 VPM, modified and changes stored back.

CATIA—STRIM/STYLER to CATIA Interface 2 (STC)

Allows users to process geometry from Strim and Styler applications in CATIA V5. It provides a unique, direct interface from Strim and Styler to CATIA, which operates on Strim and Styler native format files in the CATIA Environment.

The product features direct access to Styler and Strim data files to allow users to convert and store them in CATIA V5 format. Users can retrieve an existing Styler or Strim design into CATIA, and complete further transformations in CATIA Mechanical Solutions, as well as NC Manufacturing and Shape Design & Styling solutions.

CATIA—V4 Integration 2 (V4I)

Help existing CATIA Version 4 customers take advantage of Version 5 while preserving their investment in V4 data. CATIA V4 Integration 2 is part of every P2 and P3 CATIA platform configuration. It offers numerous integration features which make seamless hybrid installations possible, involving both applications from CATIA Version 4 and applications from CATIA Version 5, while benefiting from data compatibility between the two product lines.

Enabling V5 users to browse V4 models and seamlessly use hybrid V4/V5 geometry in V5 applications by referencing V4 models as well as allowing V4 2D and 3D data conversion in various ways into V5 data. V4 Integration 2 allows also a downward migration from CATIA V5 3D data into V4 format.
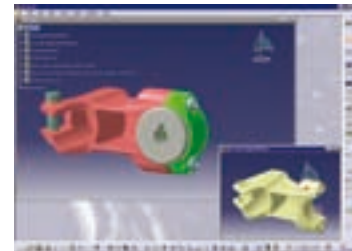
IBM®

For more information contact your IBM Representative,
IBM Business Partner, or visit the IBM PLM Web site at:

ibm.com/solutions/plm

The IBM home page can be found at **ibm.com**

07-0183-US (08/07) DG