

## Infrastructure solutions



## CATIA V5

As one of the software applications that lies at the heart of the PLM solution set, CATIA Version 5 is the cornerstone of true integration between people, tools, methodologies and resources within an enterprise. Its unique product, process, resource model and workplace approach provide a fully collaborative environment that fosters creativity, knowledge sharing and the communication of three-dimensional (3D) product and process-centric definitions.

The ability to capture and reuse knowledge embedded within CATIA facilitates the implementation of corporate design best practices. It also frees end users to concentrate on enhanced creativity and innovation.

In addition, the open CATIA V5 application architecture allows a vast and growing number of third-party vendors to submit specialised applications to meet targeted needs.

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## 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:

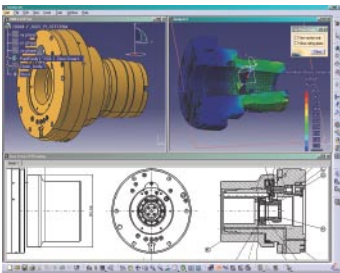
- The next generation platform for 3D PLM** – This suite of solutions provides built-in knowledgeware applications, fun-to-use user interfaces and core object management and visualisation services.
- Natively scalable solutions** – From entry-level P1 to P3 platforms, this solution set comprises highly specialised 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 optimise communication throughout the supply chain.
- Integrated solutions for product data management** – Solutions for real concurrent engineering, easy change management and secured vault.



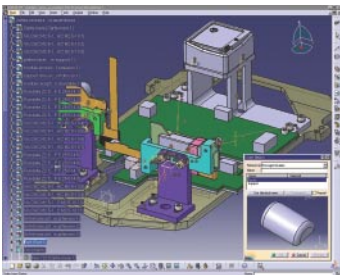
# Products

## Object Manager products

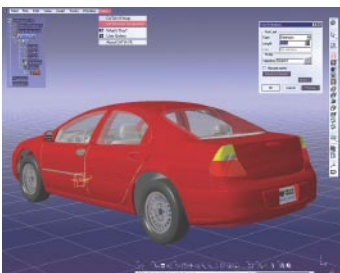
The Next Generation CATIA Solution Version 5 is built on a totally new scalable architecture which combines the best of the current CATIA technologies with new generation standards. It offers total single system image across Native Windows and UNIX environments, and an extensible environment capable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



CATIA – Object Manager 1 (CO1)



CATIA – Object Manager 2 (COM)



CATIA – Object Manager 3 (CO3)

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 specialisation 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 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 – 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 – 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.

### **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 – 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.

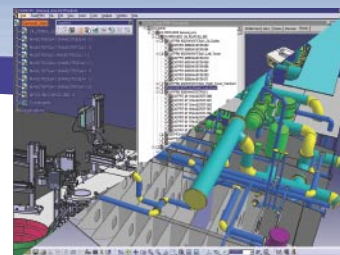
### **CATIA – IGES Interface (IG1)**

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.

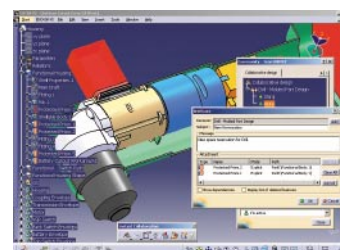
### **CATIA – STEP Core Interface 1 (ST1)**

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.

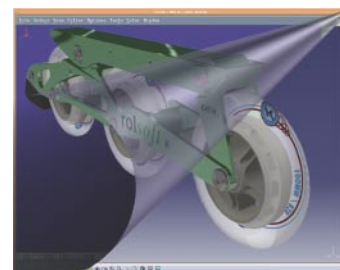
The access can be done directly with file-open/file-save capabilities or automated by batch utility.



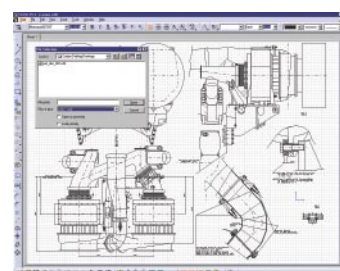
CATIA – COM 1 to 2 Extension (C12)



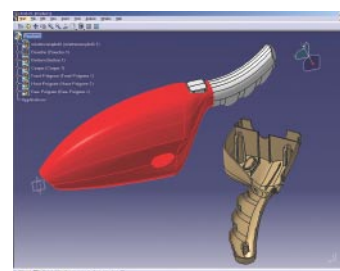
CATIA – Instant Collaborative Design 1 (CD1)



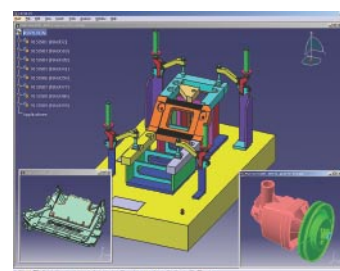
CATIA – V4 Integration 1 (V41)



CATIA – CADAM Interface 1 (CC1)



CATIA – IGES Interface (IG1)



CATIA – STEP Core Interface 1 (ST1)

# Products

## **CATIA – ENOVIA Work Package Exchange 1 (EW1)**

ENOVIA Work Package 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 ENOVIA Work Package Exchange 2 – (EWE) product.

With ENOVIA Work Package 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 specialised 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 synchronisation.

## **CATIA – ENOVIA Work Package Exchange 2 (EWE)**

CATIA – ENOVIA Workpackage 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 Work Package Exchange 2, the OEM defines a work context in ENOVIA VPM 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 – ENOVIA Work Exchange Package 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 ENOVIA VPM V4 or V5 with CATIA ENOVIA Work Package 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, visualisation. 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 visualise 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.

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)**

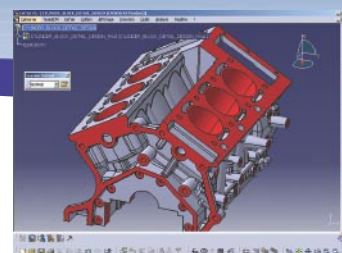
Allows users to process geometry from Strim and Styler applications in CATIA V5. It provides a unique, direct interface from Strim and Styler to CATIA, which operates on Strim and Styler native format files in the CATIA Environment.

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.

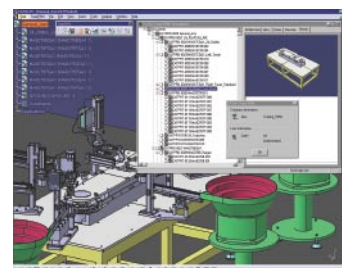
#### **CATIA – V4 Integration 2 (V4I)**

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.

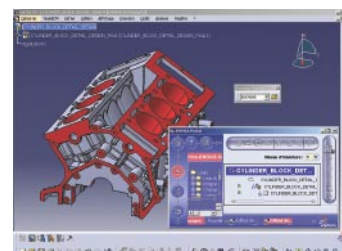
Enabling V5 users to browse V4 models and seamlessly use hybrid V4/V5 geometry in V5 applications by referencing V4 models as well as allowing V4 2D and 3D data conversion in various ways into V5 data. V4 Integration 2 allows also a downward migration from CATIA V5 3D data into V4 format.



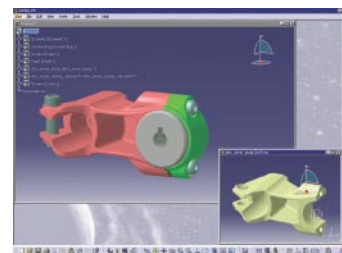
CATIA – ENOVIA Work Package Exchange 1 (EW1)



CATIA – PPR xPDM Gateway 1 (PX1)



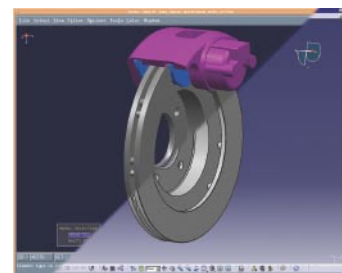
CATIA – ENOVIA Work Package Exchange 2 (EWE)



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)



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