CATIA Version 5

Mastering product development success

Product Lifecycle Management

Product Lifecycle Management (PLM) is a powerful IBM e-business on demand enabler. It facilitates a strategic approach to creating and managing a company's product-related intellectual capital, from initial conception to retirement.

PLM improves the efficiency of product development processes and a company's capacity to use product-related information. This enables companies to make better business decisions and deliver greater value to customers. It also allows collaboration across organisational and geographic boundaries, to improve supply chain communication, business process efficiency, and the ability to innovate.

Built on open industry-leading IBM middleware standards, PLM solution set components fit within any IT architecture to maximise the value of existing technical environments. The PLM solution set combines consulting, applications, services and infrastructure components to make a company's core business run smarter, smoother and faster.

A formidable combination

By combining its integrated portfolio of PLM software, market-leading hardware and world-class consulting and services, IBM delivers the most comprehensive PLM solution for any business.

As the world leader in providing e-business solutions, IBM has been at the forefront of serving the needs of small and medium-sized businesses, as well as top Fortune 500 companies, for more than 21 years. The key to this success has been its ongoing strategic partnership with Dassault Systèmes, the developer of CATIA**, ENOVIA**, SMARTEAM** and DELMIA** – the products that lie at the heart of the IBM PLM solution set.

More than technology

Using the collaborative power of the Internet, the PLM solution set allows organisations to make a quantum leap in innovative product design. It achieves this by reducing cycle times, streamlining development windows and cutting production costs all at the same time. PLM solutions optimise the product lifecycle environment and end-to-end processes with the help of the e-business and PLM technology and consulting services expertise of IBM, or its Business Partners.

ibm.com/catia

CATIA V5

To help realise the benefits of PLM, IBM also provides implementation, integration and operational support services, which include application management and business process outsourcing. To further underpin the PLM solution set, IBM can also add its industry-leading portfolio of hardware and services to your infrastructure. IBM e-server and storage solutions, as well as middleware like WebSphere[*], WBI and DB2[*], can all be used as mission-critical components of a tailored PLM solution.

Like other IBM e-business on demand offerings, the PLM solution set links enterprise technology islands into a powerful network for nurturing new ideas. It breaks down the silos between different companies within your value chain, increasing the rate of information exchange and interaction between the people who drive a business forward.

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 to the CATIA V5 Release 11 portfolio of more than 140 applications, the open CATIA V5 application architecture allows a vast and growing number of third-party vendors to submit specialised applications to meet targeted needs.

Flexible packaging

CATIA V5R11 is packaged to make selecting the solution best suited to usage profiles and process requirements easy. Predefined configurations lie at the heart of this model, and include product selections that are targeted at specific tasks or processes. To further tailor the solution, products can be added to these configurations to address broader or more specialist requirements, either as products that can be shared or added-on. Products can be ordered in three ways:

- *As an integral part of a standard configuration*
- *As an add-on to a configuration*
- *As a licence that can be shared by moving between configurations (See diagram on page 5).*
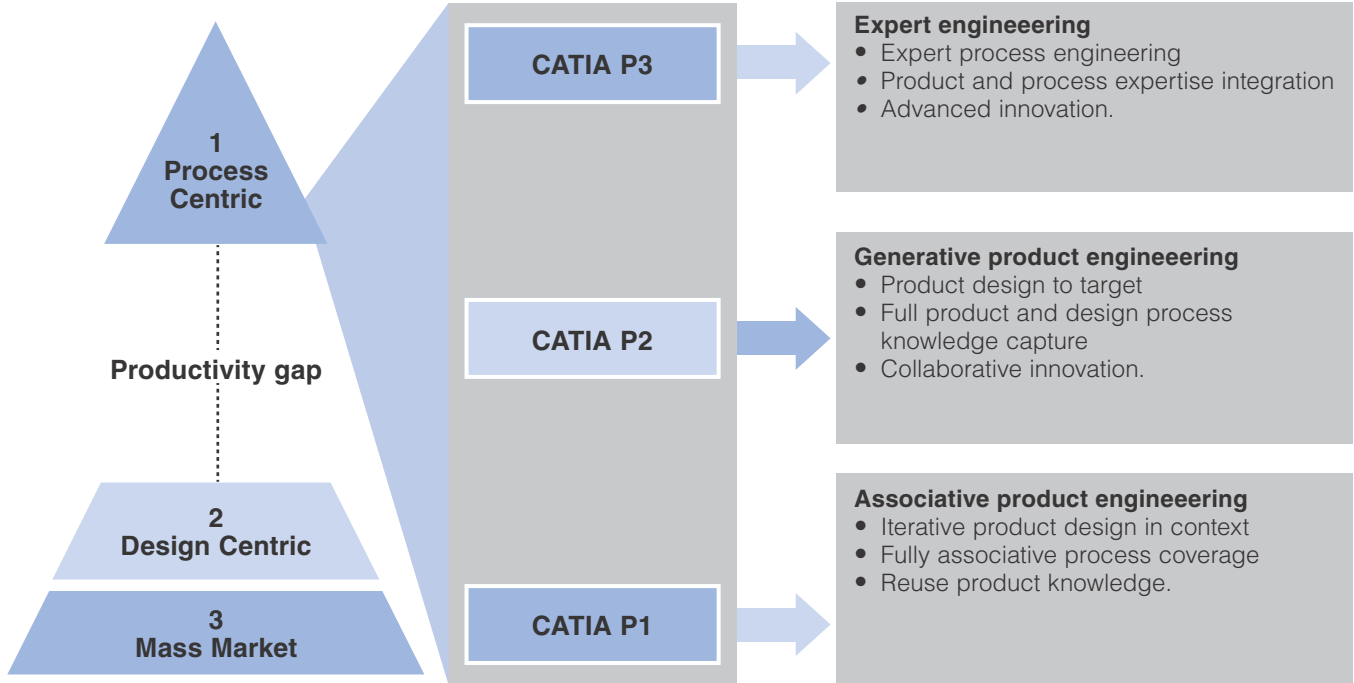
The level of capability required for specific tasks or processes can also vary due to differing product or process complexity or technological requirements. To address this and allow for the most cost effective implementation, CATIA V5 products are organised on three different platforms:

- *CATIA V5 P1 platform delivers affordable PLM productivity with the security of potential growth to advanced generative applications. With CATIA P1 Solutions, associative product engineering, product knowledge reuse, end-to-end associativity, product validation and collaborative change management capabilities are now available to all small and medium sized enterprises (SMEs).*
- *CATIA V5 P2 platform enables further PLM process optimisation through knowledge integration, process accelerators and customised tools for automated design through to manufacturing. CATIA P2 Solutions drive generative product engineering, using the most comprehensive application portfolio available in the marketplace. 'Design-to-target' optimisation allows the user to easily capture and reuse knowledge, in addition to stimulating collaborative innovation.*

- *CATIA V5 P3 platform maximises the productivity of specific advanced processes using focused solutions. These are designed to support expert engineering and advanced innovation with highly specialised applications that integrate product and process expertise.*

The world of CATIA V5 is fully scalable, as P1, P2 and P3 platforms operate on the same data model, share methodologies and facilitate growth and cost-effective deployment across the extended enterprise. A common user interface across platforms minimises training costs and maximises effectiveness, as new capabilities are introduced to accommodate an expanding scope of use. The ability to grow as needs expand is also ensured by the ability to install advanced P2 applications on top of P1 seats.

V5 scalability and portfolio access

1 Process Centric

Productivity gap

2 Design Centric

3 Mass Market

CATIA P3

CATIA P2

CATIA P1

Expert engineeering
- Expert process engineering
- Product and process expertise integration
- Advanced innovation.

Generative product engineeering
- Product design to target
- Full product and design process knowledge capture
- Collaborative innovation.

Associative product engineeering
- Iterative product design in context
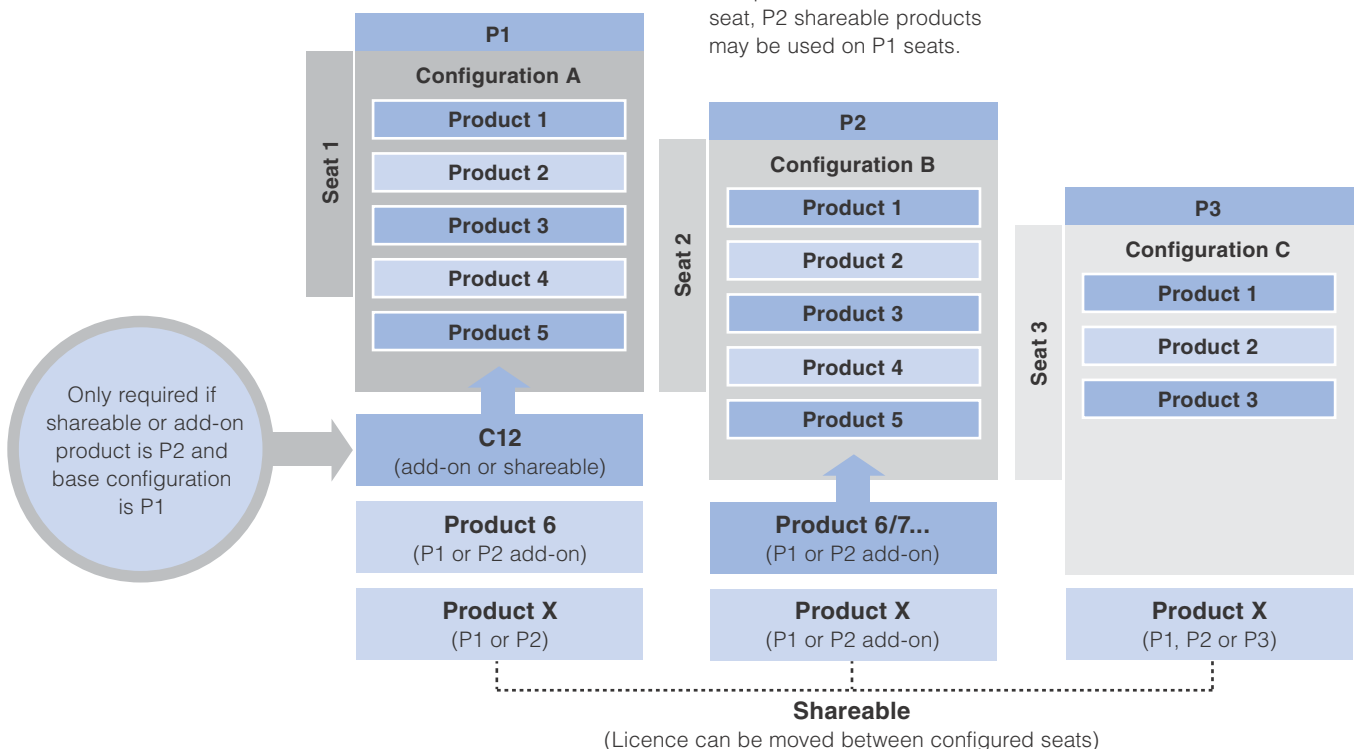- Fully associative process coverage
- Reuse product knowledge.

Flexible packaging

P1 shareable products are limited to those with no P2 equivalent.

Shareable products can be used with any seat within their own platform or any higher platform. In addition with the C12 product added to a P1 seat, P2 shareable products may be used on P1 seats.

All P1/P2/P3 products are now available as add-on products for P3 configurations.

Seat 1

P1

Configuration A

Product 1
Product 2
Product 3
Product 4
Product 5

Only required if shareable or add-on product is P2 and base configuration is P1

C12
(add-on or shareable)

Product 6
(P1 or P2 add-on)

Product X
(P1 or P2)

Seat 2

P2

Configuration B

Product 1
Product 2
Product 3
Product 4
Product 5

Product 6/7...
(P1 or P2 add-on)

Product X
(P1 or P2 add-on)

Seat 3

P3

Configuration C

Product 1
Product 2
Product 3

Product X
(P1, P2 or P3)

Shareable
(Licence can be moved between configured seats)

Mechanical Design Solutions

From concept to detailed design and onto drawing production, CATIA V5R11 mechanical design solution set accelerates the core activities of product development. Its products also address sheet metal and mould manufacturing requirements through dedicated applications that dramatically enhance productivity and reduce time-to-market. Its main highlights include:

- **An advanced 3D product creation package…** *This package includes comprehensive part and assembly design features, as well as associative drawing extraction capabilities. Designers will also find all of the two-dimensional (2D) drafting capabilities required for efficient drawing production.*

- **Productive and intuitive design of sheet metal parts…** *The feature-based approach offers a highly productive and intuitive design environment. It allows for concurrent engineering between the folded or unfolded representation of the part to deliver increased levels of productivity.*

- **Rapid, cost-effective creation of mould tools…** *CATIA Mechanical Design products provide dedicated tools to address the plastic injection process. They also provide a fast splitting tool that takes a surface or solid part and separates it into a core and cavity with sliders and loose cores. These applications greatly enhance design productivity through advanced mould simulation features for the production of assembly drawings and the machining of mould assemblies.*

- **Simple and quick creation of all types of structures…** *This capability addresses preliminary and detailed design requirements for products such as heavy machinery and equipment, tooling jigs, shipbuilding foundations and manufacturing plant foundations.*

- **Specification-driven modelling, generative applications and controlled associativity…** *These features deliver highly productive and robust engineering change management. Engineering changes can be associatively propagated through the entire product definition and with related lifecycle processes. This dramatically reduces development time and costs, while eliminating any risk of human error or design inconsistency.*

Shape design and styling solutions

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. Construct Class-A modelling shapes with the unique Class-A process orientation offer and generate high quality photo-realistic views and dynamic renderings in real time with visualisation tools.*

- **General to specialised 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 knowledgeware. This provides the power of explicit rules that define product behaviour. 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.*

Product synthesis solutions

Get it right first time! The extensive range of tools provided with CATIA V5R11 product synthesis solution set provides easy automation and validation of design and manufacturing data. This also allows for the effective capture and reuse of corporate know-how. Some of the highlights include:

Focus on the knowledgeware solutions

The CATIA V5R11 knowledgeware solution set turns implicit design methods into explicit knowledge for obtaining the optimum design.

- **The core capabilities of CATIA V5…** *Enjoy the power of product synthesis embedded within its easy-to-use multi-discipline tools. The CATIA V5 knowledgeware solution turns implicit design methods into explicit knowledge and allow users to capture and reuse corporate know-how throughout the product lifecycle. Users can add and share this extra intelligence in every phase from design to manufacturing, for simple applications or enterprise-wide deployment.*

- **The capture of expertise and automation of business processes…** *The KnowledgeWare solutions combine the power of explicit rules that define the product behaviour, with interactive capture of design intent as the design is built. As a result, the system acts as an expert advisor to guide users through the tasks, warning them of rule violations and conflicts, thus automating design generation and reducing risk. The full power of your accumulated product knowledge can be embedded directly in the design, by storing it in catalogues. It can also be leveraged through the use of custom applications based on CATIA V5 processes, allowing designers to accelerate and secure the design process cycle time, while being more innovative.*

- **Knowledgeware tools to explore more of the benefits of design alternatives and automated goal-driven design optimisation…** *The Knowledgeware solutions permit users to assess and quickly determine the best alternative for a design amongst numerous combinations of parameters and constraints. Its ability to take multidisciplinary specifications into account, such as distance, cost, volume and time, across all the CATIA V5 products, enables users to perform powerful and complete assessments of designs.*

- **Assured design consistency and quality…** *Knowledgeware solutions ensure compliance to best practices and corporate standards. Users can validate their designs and ensure acceptable development standards are maintained enterprise-wide. They also assure designers of the quality of their design, enabling them to make the right decisions, faster.*

- **Solutions that facilitate brainstorming and innovation…** *Functional and conceptual definition optimisation tools are designed to formalise designs. This allows users to detect engineering problems in the functional definition of the system at the conceptual development stage. They can then use solution guidance and links to knowledge databases as a powerful tool for solving them.*

Focus on DMU solutions

CATIA V5R11 DMU solutions support complex DMU reviews and simulations for quick and efficient engineering and process decisions.

- **Dramatically reduced costs and design cycle time…** *DMU solutions enable people involved in engineering and process decisions to perform a number of time and cost-saving functions. These include collaborative and immersive visualisation, navigation, review and simulation of digital mock-ups and technical data of any complexity. Leveraging collaborative design review methodologies across the extended enterprise, DMU solutions allow customers to place the digital product definition at the centre of their development process, transforming product information into business intelligence for fast and decisive project decisions.*

- **Increased levels of responsiveness throughout the design chain…** *DMU solutions exploit e-business characteristics throughout the product lifecycle, and are a key component of the digital enterprise. They form a platform on which customers can achieve*

a real competitive edge through product innovation. DMU solutions strengthen communication across the extended enterprise by providing advanced tools to support collaborative design and manufacturing decisions. Their tight integration with ENOVIA lifecycle management solutions contributes to raising extended enterprise performance.

- **Proven support for all DMU needs…** *DMU solutions offer a unique and extensive combination of scalable applications. They can be used by all user profiles and all levels of specialisation in the enterprise at any stage of the digital product development. They also address requirements from design review to quality verification and simulation. Built on the industry-leading CATIA V5 architecture of Dassault Systèmes, this solution set delivers seamless interoperability, reduced*

training and support requirements, ease of installation and enhanced team collaboration. This enables an accelerated response to business needs and investment protection. Its complete 'plug and play' design review environment and extensive, real-time, multi-user conferencing and reporting capabilities allow all team members to collaborate in a completely interactive review process.

Equipment and systems engineering solutions

CATIA V5 Equipment and Systems Solutions provides a set of products allowing simultaneous design and integration of electrical, fluid and mechanical systems within a 3D digital mock-up while optimizing space allocation. It includes products for optimizing plant layouts, creation of circuit boards and design of structural products. These solutions enrich your product design in any industry. For examples, fuel / brake systems for aircraft and automotive, HVAC / piping for shipbuilding and chemical and petroleum industries, tooling structure for industrial machinery, circuit boards for consumer goods. Product Highlights include:

- **A set of electrical products to address 2D and 3D requirements…** *CATIA V5 electrical products provide the necessary tools for managing the electrical behaviour of components and their integration into a 3D digital mock-up. A bi-directional interface between CATIA V5 and CAD-based electrical systems defines the electrical behaviour of mechanical parts and assemblies for electrical devices. They also manage the definition of electrical wires within the digital mock-up. A relationship can be set between 2D logical design and 3D digital mock-up to ensure consistency of both schematic and physical representations.*

- **An advanced common platform for all CATIA V5 diagramming applications…** *Based on CATIA Piping and Instrumentation diagrams and CATIA HVAC diagrams as the common platform for all 2D logical schematic tools, these applications are a base for all diagramming systems. Integrated into the rest of the CATIA V5 platform, they allow the user to define relationships between the 2D logical design and 3D allocation.*

- **Solutions to create, manage and analyse documents, equipment and systems…** *CATIA V5 provides a complete set of tools to satisfy the lifecycle requirements of manufacturing plant equipment designs and tubing, piping and HVAC designs.*

- **The ability to manage and optimise space allocation for equipment and systems…** *Users can create and manage their system pathways to ensure space reservations and allocations. Using these products customers can optimise their electrical system routing layouts for them to automatically follow functionally defined pathways.*

- **High productivity focus on in ship design and systems integration…** *The consistent and scalable nature of the CATIA V5 solution set delivers unprecedented capability to large-scale projects. It supports shipbuilding with specific applications for key processes in the ship design lifecycle. Many CATIA V5 applications also include features that support requirements specific to the industry. Specification-driven design ensures compliance with project standards and 2D logical design can drive the 3D definitions. Use these specification-driven design features to prevent using 3D equipment if it is not part of the 2D PandID diagram, for example.*

- **Tools that can be used from virtual product to virtual plant…** *Plant layout tools in this solution set combine the disciplines of civil engineering and manufacturing engineering in one seamless approach.*

Analysis solutions

he generative capability of CATIA V5 Analysis solutions provides fast design and analysis iteration for any type of part and assembly. Moreover, as a result of the CATIA V5 knowledge-based architecture, it is easy to drive product optimisation based on analysis specifications and results. Unbeatable ease-of-use also makes these powerful tools available to both designers and specialists. Some of the highlights include:

- *Fast design-analysis loops… The common CAD-FEA environment of CATIA V5 analysis solution set facilitates a wider number of mechanical behaviour and sizing assessments of parts and assemblies earlier in the product development process. The ability to drive consistent generative and associative specifications throughout the enterprise also enhances the breadth of its capability. As analysis specifications are an extension of part or assembly design specifications, the impact of design changes can be rapidly reassessed with automatic updates.*
- *Knowledge-based optimisation… The analysis suite of products takes advantage of the native CATIA knowledge-based architecture. It is designed to achieve highly sophisticated levels of design optimisation by capturing and studying the knowledge associated with part design and analysis. The reuse of analysis features and application of knowledge-based rules and checks ensure compliance to company best practices.*

- *Highly scalable solutions… These solutions address the needs of designers, engineering analysts and advanced analysts. They can be used on their own or in conjunction with the extensive range of applications available through CATIA's analysis partner solutions, which are all based on the CATIA V5 architecture. These partnerships extend the process coverage and address more specific needs such as multi-body dynamics, fatigue, acoustics and radiation.*
- *Industry-proven suite of solutions… Characterised by ease-of-use, coupled with a common user interface and fast computation time, these solutions provide a rapid return on investment. Process analysis is supported by robust, built-in and finite element solvers and mesh generators, for balancing accuracy and speed. Additionally, users can review the characteristics of designs in a DMU environment to get a realistic idea of the mechanical behaviour. This provides an opportunity to improve and optimise the design early in the development cycle.*

- *Products that are easy to understand and to use… The integrated and automated approach to solving and pre- and post-processing offers an intuitive interface for the needs of the designer, design engineer and analyst. The core application, CATIA – Generative Part Structural Analysis 2 (GPS), creates this user-friendly environment and acts as the foundation for all other analysis products. In addition, the CATIA V5 tools and environment that are common to all CATIA applications and partner solutions eliminate the problems of lost productivity associated with using multiple applications.*

NC Manufacturing Solutions

With the completeness of the CATIA product portfolio and the easy-to-use knowledge-based CATIA V5 architecture, CATIA V5 NC Manufacturing solutions exceed the capabilities of all existing NC Manufacturing applications. Some of the highlights include:

- *High efficiency in part programming…* Thanks to tight integration between tool path definition and computation, tool path verification and output creation the user can boost production quality by machining the right part, first time. Machining operations, supported by multiple passes and levels and automated rework in roughing and finishing also enhance this ability.

- *Effective change management…* This solution set possesses a high level of associativity between product engineering and manufacturing processes and resources (PPR). Companies can therefore manage concurrent engineering and manufacturing flows better and reduce the length of the design to manufacturing cycle and then saving costs.

- *High level of automation and standardisation…* By integrating the pervasive knowledgeware capabilities of CATIA V5 (in manufacturing intent and macro storage, for example), NC products allow the capture of skills and reuse of proven manufacturing knowledge and avoid repetition. This also facilitates innovation through shortened test cyles.

- *Optimised tool paths and reduced machining time…* CATIA V5 NC products offer a wide set of flexible high-speed machining operations. This decreases the time needed to execute shop floor operations, such as concentric roughing, Z-level milling, spiral milling and 5-axis flank contouring.

- *Easy to learn and easy-to-use products..* As a result of an intuitive user interface, users are trained faster and then use the full breadth of CATIA V5.

- *Reduced administration costs and skills efforts…* CATIA V5 NC Manufacturing solutions can be used as a single system to cover a wide set of integrated applications, such as lathe to 5-axis milling. This allows companies to institute strong, manageable and long-term partnerships with their CATIA CAM supplier.
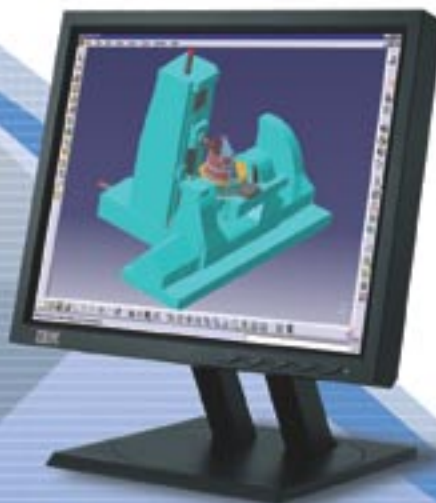
Infrastructure Solutions

Based on breath-taking 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 returns on investment.

- *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.

Learning Solutions

CATIA – Web-based Learning Solutions (WLS) is an easy-to-use learning and support system. It provides to all the required information and training in one source for maximum assured productivity of for the CATIA user community.

Also known as 'the Companion', it is designed to accompany the user so that it is ready to answer any query at any time. As such, the Companion is an essential tool allowing for the continuous enhancement of one's skills and knowledge. This is crucial to ensure optimum on-the-job performance. By combining Internet and intranet standards with common client / server architecture, WLS can be deployed throughout an entire company or installed as a stand-alone application.

Some of the highlights include:

Extending your knowledge of ENOVIA anytime with an everyday 'Companion'
The Companion provides a set of learning resources, also known as 'skillets', which are carefully designed to acquire or enhance a given skill in a short timeframe and are commonly know as 'skillets'. These skillets provide an interactive experience that includes different learning components such as 'show me', 'do it', 'try it' and 'quiz'. The variety of components makes skillets highly adaptive to the user's learning style and preferences.

Skillets can also be packaged as full courses that are equally as accessible via the Companion desktop. Among them, the course updates provided with each new release are an efficient way to keep thea user community up-to-date with the new product capabilities,thereby ensuring in order to make the most efficient usage of CATIA.

The tracking mechanism and icon-based codification features allow the user to quickly select the most relevant component while maintaining a global view of learning resources. The Companion is configured with several collaborative tools such as frequently asked questions (FAQs),forums, and e-mail to access the support desk or tutor.

Customisation according to a company's needs
As companies have their own specifications, Companion Development Studio provides the capability to fully customise WLS products. Companion Studio is an intuitive, yet sophisticated environment that enables the development of integrated learning resources for ENOVIA. With Companion Development Studio, it is possible to develop and assemble brand new material while also reusing skillets delivered in the WLS products. It is therefore easy to quickly rearrange an existing WLS course to address more accurately the targeted population. It is also possible to add specific company information, such as procedures and best practices, to build a customised learning and user reference environment.

RADE solutions

Companion Studio also promotes the development of reusable learning objects. These objects are based around a proven and robust instructional design model. Using a graphical interface, the designer can define a particular progression and then populate these objects using standard authoring tools, such as Microsoft** Word, FrontPage and PowerPoint, Macromedia Flash or DreamWeaver. It is also possible to use the specialised editors provided with Companion Studio to develop UNIX-compatible simulations and videos. As a rule, the Companion architecture is designed so that any HTML-compliant data used within a company can also be included in any Companion's learning object using Companion Studio. This feature ensures the compliance of generated data to Internet standards along with a fast evolutionary correlation to emerging standards.

Component Application Architecture (CAA) V5 and its Rapid Application Development Environment (RADE) enable users to integrate their know-how into specialised CATIA and ENOVIA applications. They also enable users to federate their existing legacy system into ENOVIA 3d com. CAA V5 is rapidly becoming the preferred development environment for companies wanting to grow the PLM solutions portfolio. Highlights of this product family include:

- *Open 3D PLM solutions…* These products build customised applications with more than 3000 component-based APIs across the range of PLM solution sets.
- *Based on leading-edge V5 architecture…* Customers can focus on innovation with powerful native capabilities, which are provided as standard components.

- *Fully integrate 3D PLM products with V5 applications…* This solution set allows for the full integration of innovative applications into existing PLM products for extending the CATIA V5 product portfolio.
- *Fast development capabilities…* The family includes tools that offer methods and guidelines for building stable applications, which are supported by the component-based architecture.
- *Toolkits that are compliant with industry standards produce Windows and UNIX V5 applications…* This feature allows companies to profit from best-in-class development experience to cut development time.

IBM®

For more information contact your IBM Marketing Representative, IBM Business Partner, or call one of the numbers below:

AMERICAS

USA	Toll-free 1 800 395 3339
Canada	(514) 938 6718
Argentina	(54) 11 4319 6594
Brazil	(55) 11 3050 5542
Mexico	(1) (52) 5 270 64 25

ASIA / PACIFIC

Australia	02 9842 9555
China	86 10 6539 1188 ext. 4774
Hong Kong	2825 7614
India	91 20 649724 / 649621
Indonesia	021 5238622
Japan	3 3808 8510
Korea	822 3781 7583
Malaysia	(603) 7720 2069
New Zealand	+64 9 359 8785
Philippines	2 819 2345
Singapore	65 320 1234
Taiwan	02 725 9493
Thailand	2 273 4406

EUROPE / MIDDLE EAST / AFRICA

Austria	1 211 45 2929
Belgium	2 225 2901
CEMA	+42 02 4929 1236
Czech Republic	27 213 1742
Denmark	45 233000
Egypt	539 2539
Finland	(0) 9 459 4151
France	01 49 05 70 64
Germany	01 805 426 756
Greece	1 688 14 76
Hungary	01 382 5500
Israel	(972) 3 697 8586
Italy	(39) 039 600 3767
Netherlands	020 513 3769
Norway	66 99 9361
Poland	22 878 6145
Portugal	21 7915005
Romania	21 224 1544
Russia	095 940 2000
Slovakia	02 4929 1203
Slovenia/Croatia	01 479 6676
South Africa	0860 788 788
Spain	(34) 91 397 66 11
Sweden	8 763 4394
Switzerland	58 333 53 70
Turkey	0212 317 1305
United Kingdom	0870 010 2510

IBM Eurocoordination
Product Lifecycle Management
Tour Descartes
La Defense 5
2, avenue Gambetta
92066 Paris La Defense Cedex
France

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

* IBM, the IBM logo, the e logo, DB2, @server and WebSphere are trademarks of International Business Machines Corporation in the United States, other countries, or both.

** CATIA, ENOVIA and DELMIA are trademarks of Dassault Systèmes.

** SMARTEAM is a registered trademark of SmarTeam Corporation Ltd.

** Microsoft is a trademark of Microsoft Corporation in the United States, other countries, or both.

** UNIX is a registered trademark of The Open Group in the United States, other countries, or both.

** Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product and service names may be trademarks, or service marks of others.

References in this publication to IBM products, programs or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program or service is not intended to imply that only IBM products, programs or services may be used. Any functionally equivalent product, program or service may be used instead.

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM warranty terms apply.

This publication is for general guidance only. Information is subject to change without notice. Please contact your local IBM sales office or reseller for latest information on IBM products and services.

Photographs may show design models. Front cover image courtesy of Design and Industry.

© Copyright IBM Corporation 2003. All Rights Reserved.

ibm.com/solutions/plm

The PLM e-newsletter delivers the latest information on PLM product announcements, events, customer success stories and more in your mailbox. Select your country and your language and subscribe at:
ibm.com/solutions/plm/newsletter

ebusiness solutions