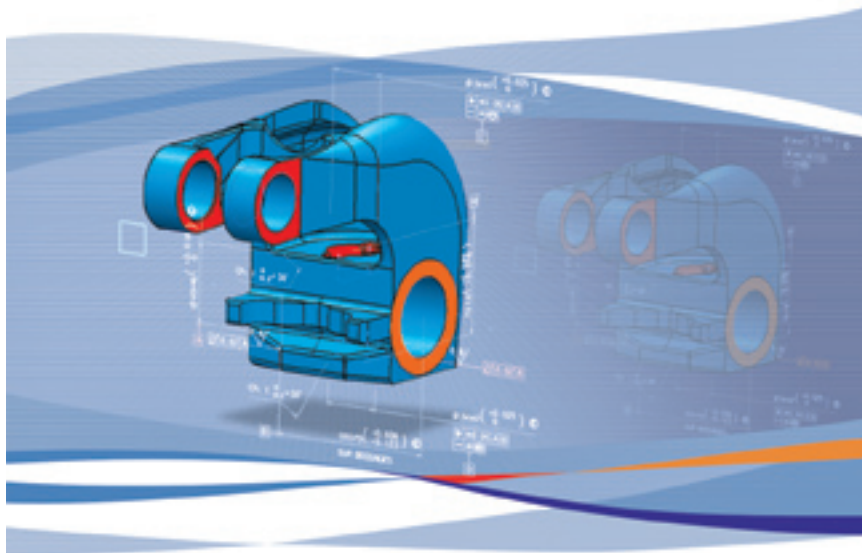**IBM**

Grow with PLM

Mechanical Engineering Profile Pack

Part of IBM's express portfolio of offerings for medium-sized businesses

> *"…by switching to CATIA V5, we improved quality by 70 percent. We've been able to reduce the number of errors made during the design phase. These errors were costly to correct later on."*
>
> *– Lorenzo Asti, Project Manager, Maschio*

Focus Industries

- **Industrial Products**
- **Consumer Goods**
- **Electrical and Electronics**

As a manufacturing company operating in a global economy, you need to design and deliver the right products to eager customers in less time than ever before. You need your engineers and designers to complete tasks in minutes, instead of hours or days. You need to design products right the first time in order to create maximum value for your company. You need to develop an on demand or scalable engineering work force by putting the right skills and capacity in place at the right time to match project needs.

The Mechanical Engineering Profile Pack includes comprehensive CATIA V5 mechanical applications complementing the base capabilities of the Collaborative Generative Design configuration to help you achieve these objectives. To meet industrial scale needs this Profile Pack can include sheet metal process and production capabilities with dedicated welded assembly features. Quick definitions of all types of linear and curved structures and plates, which are required in the mechanical design process, can be created using catalogues of standard parts and profiles or customised sections.

This Profile Pack can also be equipped with 3D tolerance annotation to facilitate assembly and adjustment 'as designed' and therefore reduce the possibility of errors early in the design cycle. For analysing the product for mechanical strength and rigidity the

powerful Generative Part Structural Analysis application can be included. This can help to reduce the number of physical prototypes since you can 'test' the product digitally. In addition feature recognition helps to retrieve comprehensive CATIA data part structures, in order to best re-use them in further processes.

The Mechanical Engineering Profile Pack helps you to:

- *Design mechanical parts right the first time with enhanced engineering analysis tools*
- *Support the machinery structure, welding and sheetmetal processes in an integrated tool set*
- *More effectively re-use intellectual property included in previous designs*
- *Free up your engineers to dedicate more time on innovation rather than repetitive tasks.*

CATIA

SMARTEAM

Mechanical Engineering Products

These are the products available to be included in the Mechanical Engineering Profile Pack. Optionally, additional profile packs can be ordered for any users who may perform a broader role in the organisation or individual products can be added from the standard Product Lifecycle Management (PLM) software catalogue as long as all pre-requisite products are also included in the order.

CATIA – Welding Design (WD1)
Design advanced welded products based on process definition and rules.

CATIA – Sheetmetal Design (SM1)
Design sheet metal parts in an intuitive and productive environment.

CATIA - 2D Layout for 3D Design 1 (LO1)
Design 3D models using a 2D conceptual approach.
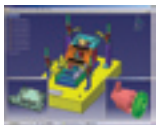
CATIA – Part Design Feature Recognition (FR1)
Recognise and manipulate feature history like holes, pads, and fillets, within an isolated boundary representation, to retrieve a comprehensive tree structure of a selected area in a CATIA part.

CATIA – 3D Functional Tolerancing & Annotation (FT1)
Define and manage tolerance specifications and annotations on 3D parts.

CATIA – Structure Design (SR1)
Rapidly design structures using catalogues of standard or custom sections.

CATIA – Generative Part Structural Analysis (GPS)*
Perform transparent and automatic structural and model analysis to promote up- front CAE during the design phase.

CATIA – COM 1 to 2 Extension (C12)
Give access to CATIA P2 products on a CATIA P1 configuration for broad scalability and wider business process coverage.

* Requires CATIA – COM 1 to 2 Extension (C12)

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

ON DEMAND BUSINESS