








Profile Packs available to extend the Collaborative Generative Design platform include:

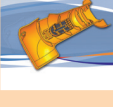
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Mechanical Engineering
For advanced sheetmetal, welding and structural analysis requirements.
- 

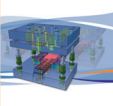
Surface & Style Engineering
For initial concept and packaging design of products involving advanced shapes and complex surfaces.
- 

Template Design
For creation of standard templates to incorporate company standards and speed the development of similar parts.
- 

Review & Decide
For complete digital mockup including kinematics simulation of moving parts.
- 

Manufacturing
For NC machine programming.
- 

Molded Part Engineering
For the design of plastic or other thin-walled parts.
- 

Equipment & Systems
For integrating mechanical and electrical designs.
- 

Die & Progressive Die Design
For the design of 'intelligent' tooling that quickly conforms to the geometry of the part.

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

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**Grow with PLM
Collaborative Generative Design**

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



“With CATIA V5 and SMARTEAM, Joka will streamline development by reducing cycle times for bidding, improving customer responsiveness, effectively reusing existing designs and components, and reducing errors and interferences.”

– Fleming M. Christensen, Sales and Marketing Manager, Joka

The challenge

In global markets, it is essential that the new products your customers are demanding hit the market at the ideal time. To do this requires an optimisation of the product development process, from initial design specifications to detailed design, manufacturing, shipping, and service after sales. You need to speed both new product development and those already in the pipeline with effective prototyping and testing. You need to design products right the first time, in order to create maximum value for your customers and for your company.

You also need to get the most out of your data by having immediate access to engineering assets, product knowledge and design data from across your company and in many cases from across your supply chain so you can make better, faster decisions. Faster access to data will help you maximise your return on assets and minimise your costs. Market research of manufacturing customers shows that 70 percent of the overall technology for a new product (from design to manufacturing) is known by the design team from the beginning of the project. The key is being able to get quick access to all of the ‘known’ information from previous similar projects. The remaining 30 percent of the design effort is the value-added part requiring customisation and/or innovation, which will differentiate your company from the competition.

These are the key drivers calling for a PLM business transformation.

The approach

The optimisation of development processes is efficiently supported by the IBM Product Lifecycle Management (PLM) Collaborative Generative Design (CGD) configuration developed by Dassault Systèmes, which is designed to enable you to respond dynamically to your customers’ increasing demands. This configuration integrates key design and process-oriented applications to deliver a robust, flexible PLM solution.

As a common base platform for all project team members, the Collaborative Generative Design configuration delivers a unique solution to efficiently support this business transformation and implement an end-to-end PLM solution. This collaborative platform is based on SMARTEAM, CATIA V5 knowledgeware applications and CATIA V5 Mechanical Design products, priced and delivered as an attractive solution for small and medium enterprises. Plus CGD now includes a new product called Generative Design Practices (GDP) which provides sample Industrial Products design templates, self-paced tutorials and classroom course materials to ensure a rapid implementation of the best practices for a generative design approach.

The 3D product creation package contains comprehensive part and assembly design features, as well as associative drawing extraction capabilities. Your designers will also find that it has all the 2D drafting features necessary for efficient drawing production. When combined with the CATIA V5 knowledgeware applications included in the configuration, these design products help to ensure your designs will have the high quality and consistency mandated by your corporate standards, capturing and capitalising on your company’s know-how and best practices. The base includes also the template design runtime to provide design engineers across projects with many simple re-use scenarios for designs and methodologies. The Step product is also included to make it easy to work with CAD designs from other CAD systems.

This base platform can then be customised by adding selective optional Profile Packs to address the particular requirements of individual users. It provides a high degree of flexibility and makes it very easy to extend the scope of your PLM deployment as your organisation’s needs and skills evolve.

The benefits

The re-use of company assets supported by CATIA V5 knowledgeware applications, combined with SMARTEAM Product Data Management (PDM) and collaboration capabilities, can help your company to optimise its product development processes. Optimising the re-use of company assets including previous project experience, standardised components and functions, and company rules can help you to better predict new product cost development expenses and can free up your engineers to spend more time on new product innovation. Collaborative Generative Design will help you to focus on value-added tasks and increase your company’s competitiveness:

Maximise application and re-use of your company know-how

Collaborative Generative Design provides a common platform for all engineering disciplines and supports the re-use of valuable company knowledge and expertise. New innovative designs can be generated from previously used and validated design logic. CGD also minimises engineering re-work by maximising the re-use of standards, and by capturing knowledge through business process and engineering templates.

Comply with corporate requirements and quality standards

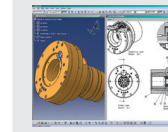
Thanks to CGD, requirements can be managed from the initial capturing of specifications, to the testing and validation of the final product. By assembling, analysing and simulating the product at an early stage, you can ensure that design and manufacturing targets are met and compliance to industry standards is achieved.

Reduce cost, minimise risk and ensure timely delivery

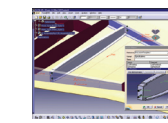
Collaborative Generative Design offers a unique integrated environment and promotes the use of a single centralised repository. The most recent versions of product data can be efficiently retrieved, reviewed and shared with others to enable rapid innovation and efficient collaboration during early phases of the design process.

The products

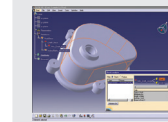
These are the products included in the Collaborative Generative Design configuration.



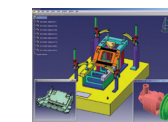
CATIA Mechanical Design 1 (MD1)
Perform 3D part and assembly design and generate production drawings.



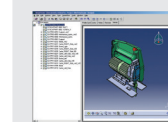
CATIA Product Knowledge Template 1 (KT1)
Re-use existing secured intelligent feature, part and assembly templates.



CATIA Knowledge Expert 1 (KE1)
Apply rules defined and stored in corporate standard data bases to ensure design quality and consistency.



CATIA STEP Core Interface 1 (ST1)
Help users working in a heterogeneous CAD/CAM environment to exchange data through a neutral format.



SMARTEAM CATIA Team PDM (TDM)
Provide rapidly implemented, scalable and customisable collaborative data management.



Generative Design Practices (GDP)
Provide sample Industrial Products design templates, self-paced tutorials and classroom course materials to ensure a rapid implementation of the best practices for a generative design approach.

