IBM

Automotive Synchronous Supplier Solution Set (S^4)

Innovative design and collaboration for suppliers

CATIA

SMARTEAM

The challenge

Today, more than ever, automotive suppliers face challenges as they strive to win and exploit new business opportunities. Competition is increasing, not only from existing, but also from emerging markets. Product lead-times are shrinking, while suppliers must comply with ever more complicated standards. To win new business, suppliers must develop more innovative product concepts, deliver accurate and competitive proposals earlier, and provide higher quality products. All of this must be achieved while minimising the cost per unit and increasing return on investment (ROI).

Clearly, new strategies are needed to support these more challenging product development requirements. To succeed in this climate, companies must streamline their business processes and improve the availability of information, while optimising all aspects of their product development process.
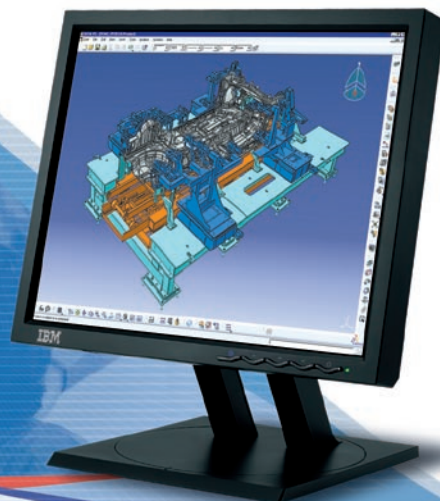
Vast quantities of information are generated during a typical project and much of this information resides in diverse, incompatible formats. As a result, little of this invaluable information is readily accessible for future projects. Frequently, no mechanism exists to search through historical data and retrieve previously validated and proven solutions.

In contrast, a central native data repository, with easy yet secure access to all relevant information early in the design process, will support innovation, increase quality, and lead to competitive advantage and increased market share.
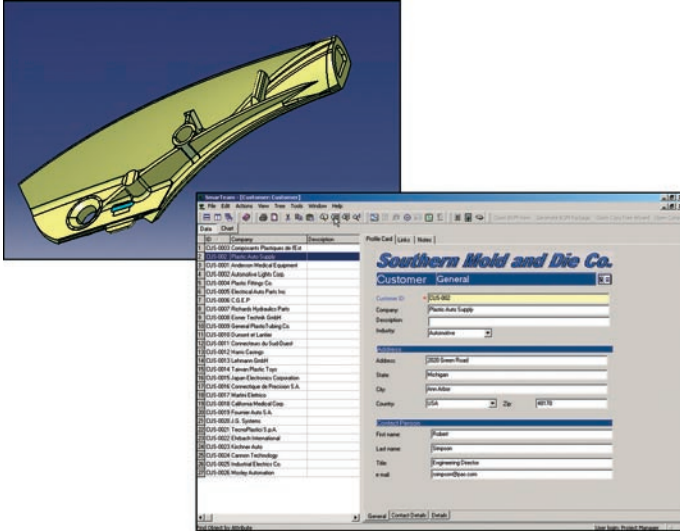
This is not tomorrow's good idea or next year's plan. Fail to collaborate successfully today and you could become yesterday's news. For many leading suppliers, the key to meeting these challenges begins with S^4 (Synchronous Supplier Solution Set) – a range of strategic solutions from IBM developed in partnership with Dassault Systèmes.

S^4 – the smart approach

S^4 is a range of solutions developed specifically to meet your requirements. Building on customised combinations of the most advanced CATIA V5 design capabilities and industry-leading SMARTEAM collaborative product data and lifecycle management products, each solution is tailored to the needs of various types of automotive supplier.

S⁴ – the benefits

S^4 – the benefits

Faster and more accurate responses to bid requests

S^4 facilitates the simple, automated generation of responses to Requests for Quotations (RFQs) and Requests for Information (RFIs), facilitating more accurate bid submissions and increased win-ratios.

Efficient sourcing of the right parts at the right price

S^4 expedites simple, automated BOM-based RFQ generation, allowing quick creation of technical specifications and easy data exchange with suppliers. The result is accurate parts and assemblies, at the right quality and price.

Reduced cost, minimised risk and timely delivery

S^4 promotes the use of one single centralised repository and Bill of Materials (BOM). The most recent versions of multi-CAx data can be efficiently retrieved, reviewed and shared with others to enable rapid innovation during early phases of the design process.

Maximum application and reuse of your know-how

S^4 provides a common platform for all engineering disciplines and supports the reuse of valuable company knowledge and expertise. New innovative designs can be generated from previously used and validated design logic. S^4 also minimises engineering re-work by maximising the reuse of standards, and by capturing knowledge through business process and engineering templates.

Reduced time and cost while exchanging engineering data

The advanced data exchange capabilities within S^4 are combined with the power of CATIA V5 for the streamlined co-design of products.

Compliance with OEM requirements and quality standards

Requirements can be managed from the initial capture of specifications, to the testing and validation of the final product. By assembling, analysing and simulating the product at an early stage, a supplier can ensure that design and manufacturing targets are achieved plus enable compliance with international standards such as ISO 9001, QS9000 and ISO/TS 16949.

Management of data from various sources and systems

S^4's connectivity simplifies the work of a supplier aiming to operate efficiently across various locations around the world. Suppliers can work with multiple OEMs and accommodate different systems and data types. You can work on the CAD applications of your choice and integrate with CATIA V5 at multiple levels simultaneously.

Industry leading capabilities

Respecting the requirements for specific tools to address multiple automotive disciplines, S^4 provides advanced capabilities developed in conjunction with market-leading OEMs. These disciplines include:

- Body-in-White
- Powertrain
- Chassis
- Trim
- Electrical
- Mold
- Die
- Castings
- Forgings
- Jigs and Fixtures.

S^4 – the solutions

S^4 capitalises on the advanced capabilities of CATIA V5 to enable an optimised end-to-end product design/ engineering process, so providing the cornerstone of a true integration of people, tools, PLM best-practices and resources. This solution set enables a unique approach to modelling and provides a truly collaborative environment, promoting the sharing of ideas, the communication of 3D product and process knowledge and fostering creativity.

S^4 Design & Collaboration

S^4 Design & Collaboration provides a customised combination of CATIA V5 and SMARTEAM capabilities developed specifically to meet OEM and supplier requirements.

SMARTEAM enables collaborating companies to share, exchange, view, manage and manipulate product information from the earliest concept phase through to product obsolescence and retirement. SMARTEAM helps drive improvements in product quality, reduced costs, expedited project turnaround, compliance with industry standards and shortened time-to-market. S^4 offers a single, centralised multi-CAD and PDM data repository with web-enabled viewing and editing, along with automated workflow to facilitate project management.

S^4 Design

For suppliers working directly with a pre-established PDM system, S^4 Design solutions provide a variety of core CATIA V5 packages which fulfill capabilities required by multiple major OEMs.

S^4 Extensions

Building upon the S^4 Design & Collaboration and S^4 Design solutions, S^4 Extensions provide advanced capabilities for specific automotive disciplines such as Body-in-White, Powertrain, Chassis, etc. Many options are available to support both component design and tooling requirements in each discipline.

S^4 – the value

"We had to become more agile and flexible to meet and exceed our customers' demands. PLM technology from IBM and Dassault Systèmes is helping us achieve our goal of becoming the innovative technology pioneer in the automotive lighting industry."
Shuichi Goto, Executive Senior Managing Director, Koito Manufacturing, Japan

"CATIA V5 is the best tool to come along in years for Powertrain design. Working with multiple OEMs means we don't always have the choice, but whenever we have the freedom, we much prefer to use CATIA V5. SMARTEAM provides a mechanism to manage our change control approval management and lets us maximise the benefit of our investment in knowledge-based design tools. It provides a single point of controlled access to the majority of our CAD and non-CAD data, and enables a collaborative approach to design engineering. The latest project data is easily available to all engineers employed on the project."
Darren Cairns, Engineering Director, Integral Powertrain, Ltd, UK

"By using SMARTEAM to manage our designs, we find that we can make changes to a product that may affect a car company in a totally different country and be able to communicate that to them on a much quicker basis. Engineering change processes are compressed; SMARTEAM has just cut that cycle time incredibly. The ability to transfer information and have sign-offs from sales, engineering, and manufacturing groups located all over the world makes us much more efficient as a global organisation."
Randall Schwann, CAD and PDM Systems Manager, BorgWarner Cooling Systems, USA
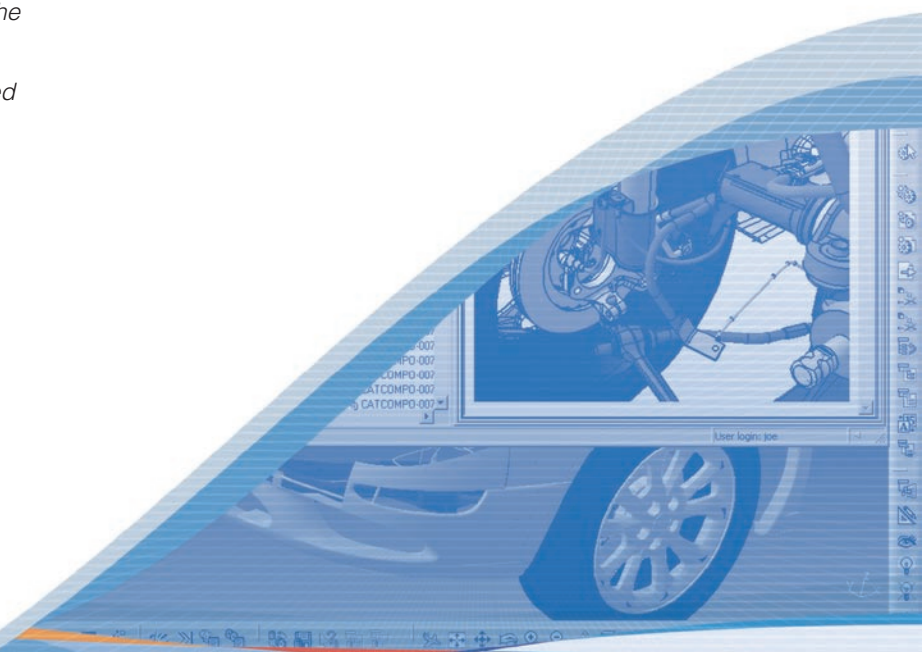
The way forward

The automotive industry is moving to CATIA V5, the premier design and engineering applications suite which strengthens your competitive edge. Along with CATIA V5, IBM provides the complete product development platform, integrating global teams and multiple applications into a single coherent product information and business process environment. Discover how you can benefit from innovative design and collaboration solutions provided and supported by the world's leading IT services organisation.

Why IBM

IBM supports S^4 through the IBM PLM Automotive Center of Competence. In addition, IBM provides solutions which integrate hardware, middleware, software, PLM best-practices and services to meet the challenges of today's demanding automotive industry.

IBM provides technology platforms for the efficient integration of processes, PLM tools, methodologies and services to meet the challenges of the entire distributed engineering product lifecycle.

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 2273
Belgium	2 225 2901
CEMA	+42 12 4954 1225
Czech Republic	420 272 131 742
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	36 1 382 5503
Israel	(972) 3 697 8586
Italy	800 753 196
Netherlands	020 513 3769
Norway	66 99 9361
Poland	48 22 8786969
Portugal	21 7915005
Romania	40 21 224 1372
Russia	7 095 9402000
Slovakia	421 2 4954 1455
Slovenia/Croatia/ Serbia/Bosnia and Hercegovina	386 1 479 6676
South Africa	0860 788 788
Spain	(34) 91 397 66 11
Sweden	8 763 4394
Switzerland	+41 58 333 5370
Turkey	0212 317 1305
United Kingdom	0870 010 2510

ibm.com/solutions/plm

ON DEMAND BUSINESS