

Autumn 2003

CONTENTS

1. Customer Diversity

...Intrinsys' business activities stretch beyond automotive powertrain into interesting and challenging markets.

2. V12 Engine Developed by A.I.E.D.

...INTRINSYS demonstrates the power of its knowledge-based engine design tools by delivering a new engine concept in less than 5 weeks.

3. SMARTEAM

... smaller businesses now have access to a cost effective, yet powerful business data management system.

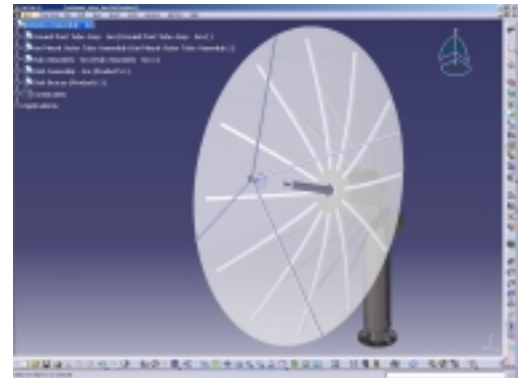
4. Intrinsys Developments

...Intrinsys' engineering focused approach to software sales proves successful resulting in growth in a contracting market.



Customer Diversity Flourishes

Intrinsys' approach to CAE services is finding new fans in diverse industries and engineering disciplines. Customers tell us they like our in-depth knowledge of the CATIA and SMARTEAM solutions, combined with genuine practical engineering application skills and experience.



One key factor driving Intrinsys' diversification is its expertise in CATIA V5 Template design applications – this allows clients to automate many of the repetitive design modelling activities for their products, dramatically reducing the time required to produce new configurations.

These interesting developments include:

- **Child Seat Parametric Template Design**
- **Luxury Yacht Furnishing Template Design**
- **Communications Antenna Template Design Vehicle**
- **Emergency Vehicle Parametric Template Design**
- **Chassis F/E Analysis**
- **Aircraft Passenger Seat F/E Analysis**

Intrinsys staff have helped customers with the transition from their existing systems to CATIA V5 by providing user training, system installations and additional design support to maintain productivity during these critical periods.

BREAKING NEWS:

- BMW announces CATIA V5 roll-out programme to its suppliers.
- Ford announces completion of first CATIA V5 vehicle design - FORD GT project
- AIRBUS mandates suppliers use CATIA V5 for A380F and A400M aircraft projects





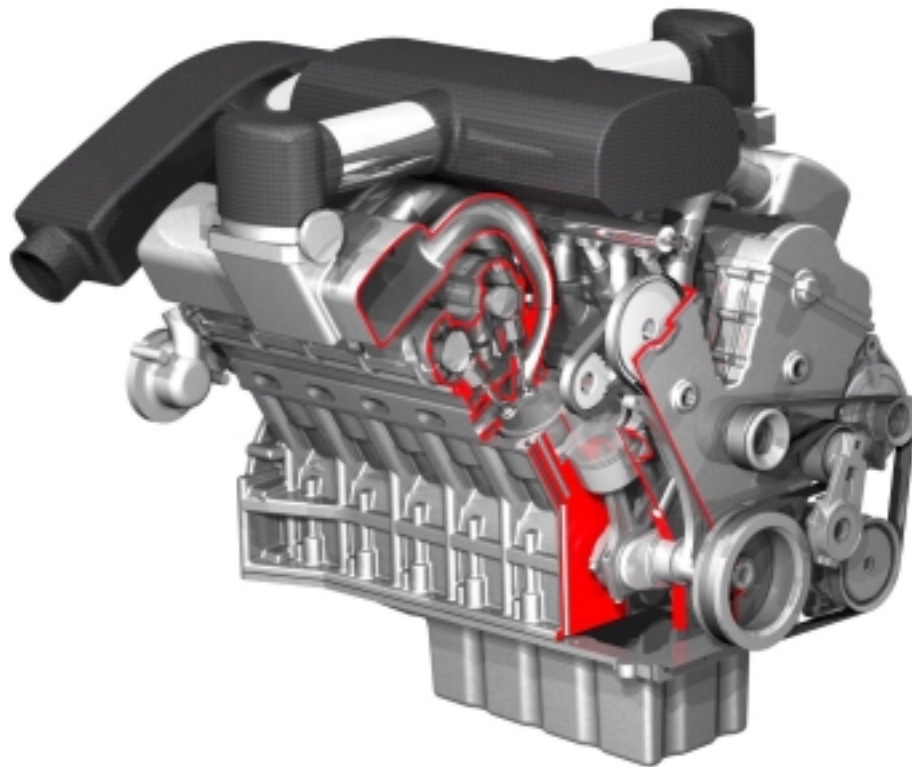
...the A.I.E.D. tools have halved the time it takes INTRINSYS to deliver a high quality engine concept.



V12 Engine Proves A.I.E.D. Tools

Integral Powertrain, Intrinsys' parent company, was given the opportunity to demonstrate its engine-specific knowledge-based design templates for a client project earlier this year. Integral's client wanted to create a thorough concept design for a new V12 engine. IP was required to deliver performance, mass, package, piece cost and investment data to enable the client to complete its total vehicle feasibility study.

IP was able to complete the engine concept development in less than 5 weeks from a total clean sheet and all deliverables were issued after a total of 7 weeks. IP was able to achieve this impressive task by using its Automated Intelligent Engine Design (A.I.E.D.) tools which are knowledge-driven modelling templates created for CATIA V5. The templates used covered; cylinder head, cylinder block, piston, con-rod and crankshaft.



The tools allow a high level of analytical and knowledge input to be incorporated automatically into the 3D models. This improves the quality of the design and dramatically reduces the time taken to achieve feasible and robust geometry.

IP's achievement has created a lot of interest in the engine design community across the globe, resulting in enquiries from Japan, India, USA and Europe. IP is considered by the developers of CATIA, as the leading independent user of these advanced software functions for powertrain applications.

Intrinsys is offering to develop intelligent design templates for its clients, incorporating the client's specific engineering and manufacturing rules.





...smaller businesses now have access to a cost effective, yet powerful business data management system.



SMARTEAM Data Management

There comes a point in a company's development when the task of managing engineering, purchasing and business accounting data becomes far too complex for traditional methods and separate systems. Large multi-national companies have long found efficient management of such data essential to avoid business chaos!

A variety of software products have been developed to help larger businesses perform the following tasks:

- Component and assembly CAD data management
- Bill of Materials (BoM) management
- Sign-off and releasing for manufacture
- Purchasing administration
- Accounts and cost management

Most smaller businesses have built their business IT systems around the Windows infrastructure and would prefer business system upgrades and developments to operate efficiently in this environment. IBM has launched SMARTEAM PDM system to complement NT-based CAD systems to produce a harmonised Windows based engineering and business design and data management system. Known in the IT trade as a Product Lifecycle Management (PLM) system.

Intrinsys' parent company Integral Powertrain has implemented SMARTEAM in its own business and has found the following benefits.

- Avoidance of design re-work due to package clashes – SMARTEAM ensures the design team can see all the current component designs within complex assemblies enabling efficient parallel design activity.
- Simple BoM maintenance – BoM data is easy for the engineers to update and is automatically linked to the master BoM
- Effective design data storage avoids mistakes – design histories and obsolescence are handled effectively – old data is managed – current data and component relationships are mapped. If one part is modified and it has a relationship to other parts, these parts are flagged for checking and sign-off, as well as the original part.
- Data storage and retrieval – flexible search engines enable users to find relevant data.
- Clear and robust design releasing and quality management procedures can be easily implemented.
- Product visualisation – non-CAD users can view the parts which helps with identification and communication
- Analysis data, calculations, notes, NC machining data etc can all be stored and associated to their relevant parts.

SMARTEAM is compatible with all NT based CAD systems.

As a new development for businesses using the Sage accounting system, Intrinsys has worked with Dassault to develop software links to enable the BoM data from SMARTEAM to be shared with Sage purchasing and cost accounting systems. This development will enable SMARTEAM and Sage users to significantly reduce the work required to manage component purchasing and cost tracking activities.





...Intrinsys' engineering led approach to CAE implementation has proved successful.

Intrinsys
Denbigh Road
Bletchley
Milton Keynes
MK1 1DB

Phone:
01908 278 606

Fax:
01908 278 601

E-mail:
mcostin@intrinsys.co.uk

www.integralp.com
www.intrinsys.co.uk

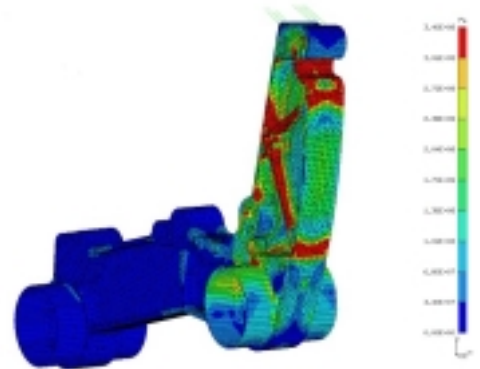


Intrinsys Developments

IP launched its Intrinsys C.A.E. consultancy in the Autumn of 2001 with the aim of developing a successful and complimentary division. Under the name of Intrinsys, the division operates as an IBM Business Partner for sales and support services for CATIA, SMARTEAM & Enovia CAE, including user training and hardware system solutions.

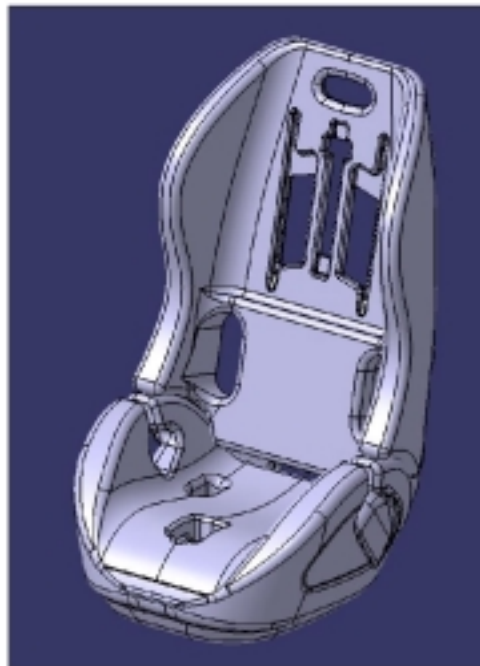
IP anticipated that the combination of engineering and I.T. systems expertise would prove valuable to its new clients. We are pleased to report that this enterprise has been successful with Intrinsys now being one of IBM's top performing UK business partners.

Intrinsys' clients come from many industries and have diverse needs. Its success has been based on a policy of providing experienced engineers to work alongside clients to implement the software in a robust manner. Many clients tell us they value the level of knowledge and skill of our engineers and that this has proved important in tailoring the software and training implementation to fit the needs of their business.



Intrinsys has worked with Dassault Systemes and IBM for a number of years influencing the development of the new V5 software. Intrinsys engineers have been exploiting the new knowledge-based engineering tools to develop templates across a number of industries as well as the Automotive sector.

Through working with client engineers on a number of projects, IP's engineers have been able to demonstrate the significant time-savings when modelling, detailing and manufacturing parts using CATIA V5. Several rigorous back-to-back evaluations for very different applications have proven the cost saving and quality benefits of this new approach to engineering.



Intrinsys also provides customers with other specialist solutions including PQA automated data quality checking that supports multiple CAD environments and e-Signatory software that allows fully electronic sign-off and approval that is required by various industry authorities.

In-house programming skills also allow customised integrations between various products, enhancing customer business efficiency.

