

SITUATION

In 1995, Ford Motor Company launched "Ford 2000," a massive, global restructuring effort aimed at faster development, greater value, and globalization.

To help achieve these goals, the engineering and manufacturing sectors of Ford developed the C3P program. Named to reflect the program's focus on CAD, CAM, CAE, and Product Information Management (PIM) systems, the program seeks to provide a seamless unification of CAD, CAM, and CAE environments at all stages of component, powertrain, vehicle development and manufacturing. As such, it represents the most significant retooling effort in the design automation environment ever undertaken at Ford.

To support this kind of aggressive process change, Ford selected SDRC as its technology partner because of their shared visions and strategies, and SDRC's commitment to Ford's success.

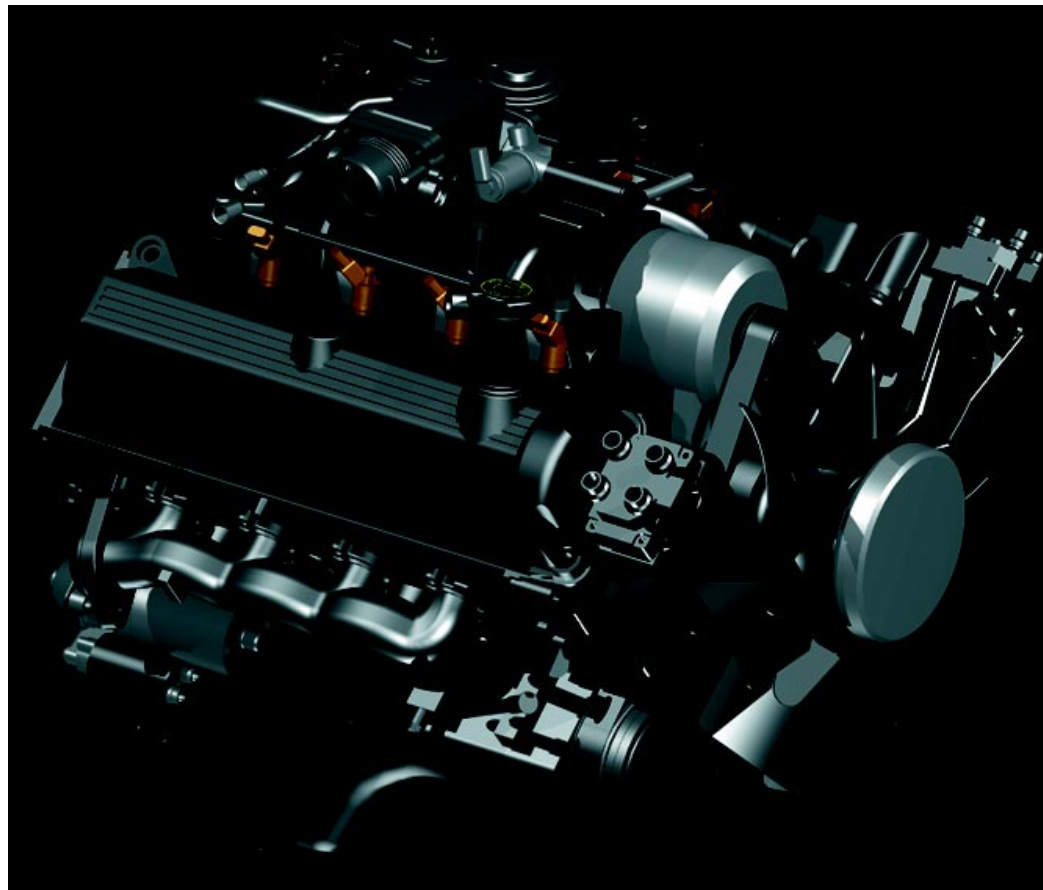
PROCESS VISION

- ✓ Create a single, globally accessible source of product engineering and process information.
- ✓ Significantly reduce prototype costs and greatly expand simulation early in the vehicle development process.
- ✓ Accelerate time-to-market.
- ✓ Improve engineering efficiency significantly.
- ✓ Help Ford meet the challenging goals of sustaining and growing its market leadership and profitability.

ACTIONS

- ✓ SDRC has established the SDRC-Ford Technology Center in Dearborn, Michigan, to serve as the focal point for these efforts. Here, more than 200 SDRC employees are dedicated to supporting Ford through software training and implementation assistance. Similar centers are being established to support Ford's European operations.
- ✓ Ford's dramatic process-improvement efforts extend to its suppliers as well. To further speed its product development process by eliminating

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the need to recreate or reformat product-related data, Ford is encouraging its suppliers to standardize on I-DEAS™ software for Ford-related work.

PROJECTED RESULTS

- ✓ The Ford implementation of CAD/CAM/CAE and PIM is the largest and fastest adoption of new technology in the automotive industry. When the transformation to C3P is complete, all Ford development teams around the world will have at their fingertips the collective knowledge of the rest of the company, present and past. Ultimately this technology will result in reduced time and associated costs to product development. For Ford it represents the opportunity to:
 - Increase world leadership as a vehicle manufacturer.
 - Realize dramatic process improvements, enabling the company to bring superior products to market in record time and at a reduced cost. Ford realized a 25% rise in productivity in design engineering by the end of 1998.
 - Enable Ford engineering teams throughout the world to share information in a more timely and effective manner, and thus reap the benefits of a concurrent or team engineering approach to product development.
 - Cut vehicle development time from approximately 37 months to 24 months or less, from program approval to Job One.
- ✓ There are more than 4,000 I-DEAS software users and more than 3,300 Metaphase® users. Additionally, more than 3,000 Ford supplier seats have been sold.
- ✓ Currently there are nearly 30 vehicle programs under development with C3P. All new programs will be online with C3P by the year 2000.

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