Do you know?

CAD – Interesting facts

Dr. Patrick J. Hanratty known as "the Father of CAD/CAM" for his pioneering contributions to the field of computer-aided design and manufacturing, developed in 1957 PRONTO, the first commercial numerical-control programming system. At the end of 70s a typical CAD system was a 16-bit minicomputer with maximum of 512 Kb memory and 20 to 300 Mb disk storage at a price of 125,000 USD.

1981 - Unigraphics introduced the first solid modeling system, UniSolid. It was based on PADL-2, and was sold as a stand-alone product to Unigraphics.

1982 - CATIA Version 1 announced as an add-on product for 3D design, surface modeling and NC programming.

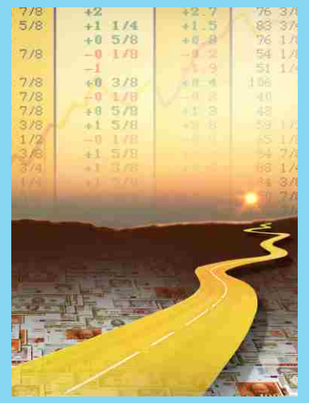
1983 - The first German and French versions of AutoCAD

1984 - The first Autodesk Training Centre

1986 - AutoCAD reaches 50,000 copies sold worldwide.

1987 - General Motors selects Unigraphics company as a Strategic Partner

1989 - Parametric Technology ships the first version of Pro/ENGINEER.



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Book Post

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1990 - Bentley Systems announces that the installed base of MicroStation reaches 100,000.MicroStation expands to range of products

1996 - SolidWorks Co. ships Solid Works, an ambitious 3D package based on Parasolids modeling Kernel.

1998 - Autodesk ships 3D Studio MAX version 2.5

1999 - Parametric Technology acquired Computervision and their product CADDS 5.

2000 - CoCreate Software Inc., a subsidary of Hewlett Packard Company, announces release of Solid Designer 2000 with five new modules.

2000 - Delcam has been the world's leading specialist supplier of NC machining software and services during 2000. Second position is Hitachi Zosen followed by Cimatron.

Courtesy: www.mbdesign.net

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your CAD / CAM highway

Today's product development challenges

More than ever before, manufacturing companies are motivated to develop more innovative products in shorter delivery cycles while striving to meet customer demands for high levels of quality. But the need to perform "better, cheaper and faster" in a highly competitive global marketplace is easier said than done. The issues that the product development process must address are among today's most daunting challenges. At first glance, speed, cost, quality and capturing the customer's imagination are objectives that appear to be at odds. Conventional technologies often speak to one or two of these goals, but few solutions are designed to embrace all four concerns.

This dilemma requires a radical rethinking of the traditional business model that has been applied to product development. Today's challenges require companies to examine every step in the product development process and then improve each of these steps individually –as well as to transform the product development process in its entirety.

Your product development process must master complexity. It requires the participation of multiple disciplines that traditionally have been geographically, organizationally and technologically isolated. These barriers inhibit the marketing, design, engineering, simulation and manufacturing teams that develop a product from aligning their activities from the start of a project to its completion. These cross-discipline teams need to understand the product's evolving requirements, share their best ideas, retain the product's design intent, manage change, communicate their concerns, and monitor current status through systematic and repeatable processes that mirror the iterative and dispersed nature of today's product development value chain.

Engineering Job Fair - 2010

CADD Centre in association with Skillease conducts "Engineering Job Fair - 2010" at

St.Joseph Composite PU College, Bangalore
on 8th August, 2010.

Over 15 companies namely Atlantis lab Pvt Ltd, Haritab Techserve Ltd, ASM Technologies Ltd, Geometric software, Featherlite Product Pvt Ltd, Prothious Engineering Services, Potential Consultancy, Oasis Automation Technologies, Forge Pro India Pvt Ltd, IHTP Design Associates-ISKON, BioDiversity Conservation India Pvt Ltd, ANIL CNC and GEARS Pvt Ltd, Netcom, Airvent Private Limited, Neural systems Pvt Ltd are participating in this job fair. For more details please call 09900991776 / 09945152868 or write to g.sathya@caddcentre.ws

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NX

"Today's challenges require companies to examine every step in the product development process and then improve each of these steps individually - as well as to transform the product development process in its entirety."

Just as importantly, today's product development process is expected to compress its various cycle times by minimizing lead times and eliminating tasks that do not add value – while maximizing knowledge re-use and proactively addressing downstream issues before they turn into costly mistakes. To address these challenges, Siemens PLM Software provides the NX suite of digital product development solutions.

Introducing NX

UGS NX is the commercial CAD/CAM/CAE PLM software suite developed by Siemens UGS PLM Software. NX is widely used throughout the engineering industry, especially in the automotive (e.g., General Motors, Nissan Motors) and aerospace sectors (e.g., Boeing, Rolls-Royce and Pratt & Whitney). It is also used in consumer goods design in companies such as BSH, Dyson, and Apple.

The NX suite of solutions enables you to transform your entire product development process – as well as streamline the efficiency of the individual steps that comprise this process. NX provides best-in-class functionality for CAD, CAM, CAE and PDM for all of your product development initiatives. The NX suite delivers unparalleled breadth and depth of functionality, including:

Synchronous Technology, enables you to seamlessly use the most productive modeling approaches in the same environment including explicit solid and surface modeling, as well as parametric and history-free modeling.

Knowledge-based automation, enables you to leverage the product and process knowledge that your company has gained from its experiences, as well as from industry best practices.

Process innovation, enables you to streamline and integrate the everyday work of your planning, concept design, engineering, simulation and manufacturing teams.

Lifecycle simulation, enables you to streamline your simulation, validation and optimization processes and incorporate performance simulation into your product development process early and often.

Mechanical Design

Today's design processes need to deliver increasingly more complex products that require the participation of multiple teams, disciplines and suppliers using independent CAD systems and different modeling techniques.

NX's leading edge CAD modeling tools represent a radical departure from conventional CAD systems in terms of the power, versatility, flexibility and productivity they deliver to the product development environment.

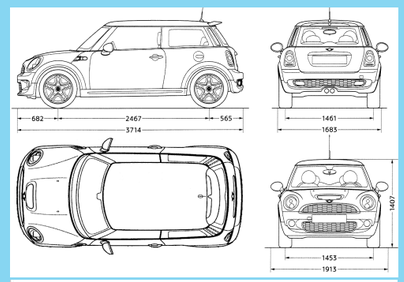
Comprehensive high-performance modeling. NX enables you to freely use any modeling technique that fits your design challenge. NX's comprehensive 3D design capabilities include wireframe, surface, solid and direct modeling solutions. Powered by Siemens' groundbreaking Synchronous Technology, NX lets you unite feature-based parametric and history-free modeling in the same design environment. Designers can use NX to modify design geometry initially created on other CAD systems or by other modeling techniques – without re-creating data.

Knowledge-enabled design. NX leverages the product and process knowledge that your company has gained from its experiences, as well as from industry best practices. Designers can capture knowledge in the form of high-level product structure, templates, frequently used design features, engineering rules, formulae and validation checks. Knowledge-enabled design helps you reduce design costs, compress the design cycle and improve design quality.

Active mockup and assembly design. NX Active Mockup enables designers to easily navigate large assemblies and establish a context for detailed sub-assembly and component work. Design teams use NX's interactive design capability to collaboratively view, modify and evaluate complete digital mockups. Designers can perform interactive clearance and interference checking to detect and eliminate fit problems.

Advantage

- Accelerate the design process and improve design throughout by eliminating non-valued added tasks.
- Improve design team productivity and performance, especially when handling large complex models.
- Fully integrate all of your design teams across the entire development cycle by retaining design intent even when different disciplines use multiple CAD systems.
- Raise quality and minimize design errors by "designing-in" –rather than "inspecting in" – product quality.
- Maximize design re-use by establishing common product platforms and building established best practices in your development processes.



Machining

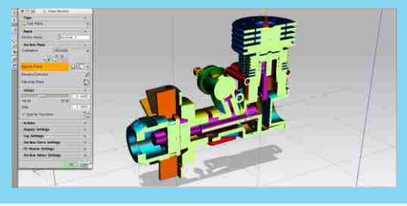
To maximize the value of today's latest and most powerful machine tools, it is crucial that manufacturing companies leverage NC programming systems that realize the full capability of these investments. NX CAM provides a wide range of machine tool programming capabilities in a single integrated solution to enable you to take advantage of the latest machine tool technologies and manufacturing processes.

Advanced capability. NX's high-speed machining strategies facilitate efficient hard milling while maintaining smooth motion and consistent chip loads. Synchronized point distribution produces tool paths that deliver a superior finish at the machine tool. The NX machining library provides proven out-of-the-box solutions for machining tool steels.

NX supports the latest generation of multi-function machine tools, including multi-channel milling, drilling and turning capabilities for simultaneous 5-axis support. NX facilitates a wide range of flexible 5-axis machining with many tool axis control options.

Programming automation. NX's automated feature-based machining strategies enable you to apply machining processes to hole and surface features in the parts model. You can use NX CAM wizards to capture and re-use proven machining processes that lead NC programmers through step-by-step machining sequences.

Production-ready output. G-code-driven machine tool simulation validates NX programs in the context of the machine tool. Complete toolkits with proven post processors, G-code simulation drivers, 3D machine tool models, setup examples and sample parts are available for select multi-function machines. You can use NX Postbuilder's graphical user interface to create post processors with simple drag and drop techniques. Hundreds of posts are available in the NX online post processor library.



Integrated part manufacturing. NX CAM is totally integrated with other NX solutions so that NC programmers can directly access comprehensive design, assembly and drafting tools in a single part manufacturing environment. With design through manufacturing associatively, design changes are automatically propagated to machining operations. Programmers and manufacturing engineers can work with part models, create and assemble fixtures, develop tool paths and even model entire machines for 3D machining simulation in this environment.

Advantage

- Improve the productivity of your machine tools by taking advantage of the latest machine tool technologies and manufacturing processes.
- Save up to 90 percent on programming time by automating routine tasks.
- Achieve faster and repeatable NC programming by capturing and re-using proven machining processes.
- Get it right the first time on the shop floor by simulating and validating NC programs in the context of the machine tool