CAID Currents: The State of CAID Art

Del Coates, San Jose State University
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CAID Currents

By Del Coates, IDSA

CAID Editor

Del Coates teaches industrial design and computer graphics in the Department of Art & Design at San Jose State University. He is also associated with the CAID Research Assistant: Doug Bone

The State of the CAID Art

I've devoted this column to an update on advanced software products that have found application in 3D offices. By "advanced" I mean "fast" (requiring a powerful workstation running the UNIX operating system), with an extensive set of capabilities (requiring huge chunks of memory in the form of RAM and hard disk storage). Those systems are not cheap. While the price and performance gap between UNIX workstations and the latest generation of PCs, like Power Macintoshes and Pentium-based IBM-PC compatibles, has narrowed, the software costs more than PC software, too. Not only it does so much more, but because it cannot survive in a relatively small market: developers must spread extensive development costs over fewer users. The bottom line is this: for an advanced CAID system, including hardware and software, hovers around $100,000 and many systems still cost more than $100,000.

Considering that cost range, it might seem that things haven't improved much over the past five or ten years. But, in reality, the costs of advanced systems have plummeted when you take into account how much more performance you get for the dollar from today's workstations, and how much more the software can do. Until relatively recently, designers spent considerable time testing the computer to render new views of simple wireframe models.
When it comes to designing and manufacturing products, modern CAD systems offer a wide range of features and tools. These systems allow designers to create detailed models and renderings, simulate materials and processes, and collaborate with other team members. However, choosing the right CAD system can be challenging, as there are many options available, each with its own strengths and weaknesses.

Basic Design Features

- **Accurate Rendering:** With modern CAD systems, designers can create highly realistic renderings that accurately represent the final product. These renderings can be used for visualizations, presentations, and marketing materials.
- **Interactive Modeling:** Interactive modeling allows designers to make changes to a model in real-time, allowing them to explore different design options quickly.
- **Collaboration:** Modern CAD systems include collaboration tools that allow multiple designers to work on the same project simultaneously, making it easier to share ideas and make changes.
- **Simulation:** CAD systems can be used for simulations, such as stress analysis, fluid dynamics, and thermal analysis, helping designers to identify potential issues early in the design process.

Different CAD systems offer different combinations of these features, so it's important for designers to choose a system that meets their specific needs.

Choosing the Right CAD System

When choosing a CAD system, designers should consider factors such as the complexity of the project, the size of the design team, and the level of collaboration required. They should also consider the cost of the system and whether it offers the necessary tools and features.

In conclusion, modern CAD systems offer a wide range of features and tools that can help designers create high-quality products. However, choosing the right system requires careful consideration of the specific needs of the design project.
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Rapid Prototype Perspectives

Chicago Model Shop Leads Way To Better Rapid Prototyping For Designers

One of the leading Si-Fi animation model shops in America is the 3D model department of Wiregus Product Models. Victory Works Model Shop has been producing prototypes and models for many years. "We had been looking for a way to improve our rapid prototyping methods," says Wiregus. "We had been using a variety of methods, but none of them were as efficient as the one we are now using." The method used is Rapid Prototype and Wiregus has been using it for several years. "We have been very pleased with the results," says Wiregus. "It has allowed us to produce more accurate and reliable models."