## Georgia Tech

**Research News** 

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## BRINGING COMPUTERS CLOSER TO USERS: GRAPHICS, VISUALIZATION & USABILITY (GVU) CENTER OPENS AT GEORGIA TECH

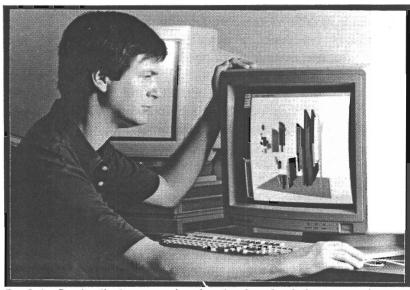
The Georgia Institute of Technology has established a Graphics, Visualization & Usability (GVU) Center to help make computers more accessible through advances in computer graphics, information visualization and ease of use.

The new GVU Center is scheduled to be officially opened at an October 15 convocation featuring internationally-known authorities in computer graphics, interface design, human-computer interaction, interactive computing and computer animation.

"Making computers accessible and usable by every person represents the next and perhaps final great frontier in the computer and information

## FOR MORE INFORMATION:

ASSISTANCE/PHOTO: John Toon or Lea McLees, (404) 894-3444, or CompuServe at 71045,164. RESEARCHER: Dr. James Foley, (404) 853-0671.



Dr. John Stasko displays an animation developed to help users understand the operation of computer algorithms. The work is being done in the new GVU Center. (Color/B&W Available)

revolution," said Dr. James D. Foley, director of the GVU Center. "The Center's vision is of a world in which individuals are empowered in their everyday pursuits by the use of computers."

The declining cost of computer hardware and increased access to software have broken down the technological barriers preventing more widespread use of computers, he noted.

But before computers become as widely and effectively used as automobiles or telephones, better methods must be developed to help humans and computers communicate with each other, Foley said.

The GVU Center will help focus interdisciplinary efforts on the issues of graphics, visualization and usability by bringing together 25 faculty and researchers -- along with nearly 100 graduate students -- from ten different Georgia Tech colleges, schools and offices. The Center's mission includes teaching, research and service.

Among the participants are Georgia Tech's College of Computing, College of Architecture, the Georgia Tech Research Institute, the Office of Information Technology, the Multimedia Technology Laboratory, and the Schools of Mathematics; Literature, Communication and Culture; Psychology; Industrial and Systems Engineering, and Civil Engineering.

The GVU Center operates a 3,000 square foot research facility and scientific visualization laboratory housed in Georgia Tech's College of Computing. Included in the facility are a usability laboratory for studying user-computer interfaces, a complete video editing studio, and more than 45 Apple, DEC, Silicon Graphics and Sun workstations.

Center members conduct research in realistic imagery, computer-supported collaborative work, algorithm animation, medical imaging, image understanding, scientific data visualization, animation, user interface software, usability, adaptive user interfaces, multimedia, stereoscopic computer graphics, virtual environments, image quality and expert systems in graphics and user interfaces.

A sampling of research projects which involve the Center includes:

- \* Stereoscopic Computer Graphics
- \* Next Generation User Interfaces
- \* Stereo Visualization and Animation Tools
- \* Visualization of Parallel Programs
- \* Interactive Model-Based Vision for Telerobotic Control
- \* Knowledge-Based Interpretation of Medical Images
- \* Multimedia On-line Help
- \* Multimedia Electronic Mail
- \* A Non-Visual Network Computing Interface
- \* A Cognitive Architecture for Human-Centered Automation on the Flight Deck
- \* Fast Parallel Wavelet Transform
- \* Image Compression

Topics and speakers for the October 15 convocation include:

- -- "Electronic Books," Andries van Dam, Professor, Computer Science Department, Brown University.
- -- "Computer Graphics and Its Use in Architecture: Past, Present and Future," Donald P. Greenberg, Professor, Computer Graphics, Cornell University.
- -- "Analysis and Design in Human-Computer Interaction," Stuart K. Card, Research Fellow and Manager, User Interface Research, Xerox Palo Alto Research Center.
- -- "Interactive Computing in the Year 2000: How Do We Get There From Here?" Robert Glass, Sun Microsystems; Frederick L. Kitson, Hewlett Packard Laboratories; John A. Morse, Digital Equipment Corporation; and Joy Mountford, Apple Computer.
- -- "Computer Animation for Math and Science Education," James F. Blinn, Project MATHEMATICS! California Institute of Technology.

The convocation will begin with opening remarks by John Patrick Crecine, president of Georgia Tech; Peter Freeman, dean of the College of Computing; and James Thomas, chairman of the ACM Special Interest Group for Graphics. Demonstrations and tours will also be held at the Center.

The convocation will begin at 8:30 a.m. in the College of Computing, Room 16 of the AECAL Building. For more information, please call (404) 853-0672.

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