GERMANY Stuttgart

University of Stuttgart

Institute of Visualization and Interactive Systems (VIS)
University of Stuttgart
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Core Competence

Scientific Visualization, Programmable Graphics Hardware, Real-time Rendering, Information Visualization,Virtual Reality

Head of the Institute
Thomas Ertl

History

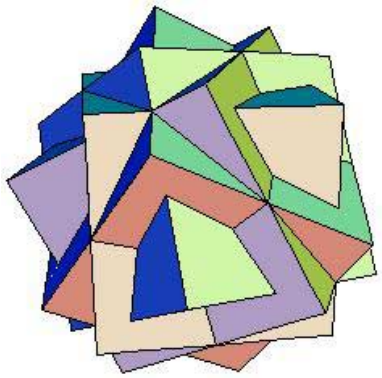
Thomas Ertl joined the University of Stuttgart in 1999. Before that he was an associate professor at the University of Erlangen, where he founded the VIS group. The group in Stuttgart was originally founded by Rul Gunzenhäuser in the seventies and made important contributions to the field of user interfaces for the blind.

Staff

1 Professor: Thomas Ertl
2 Assistant professors: Daniel Weiskopf, Kenji Hanakata
10-15 Research assistants: Joachim Diepstraten, Klaus Engel, Norbert Frisch, Matthias Hopf, Andreas Hub, Sabine Iserhardt-Bauer, Martin Kraus, Marcelo Magallon, Guido Reina, Dirc Rose, Martin Rotard, Stefan Röttger, Waltraud Schweikhardt, Simon Stegmaier, Manfred Weiler
3 Technicians: Hermann Kreppein, Martin Schmid, Alfred Werner
2 Secretaries: Ulrike Ritzmann, Marianne Castro

Rooms and Locations

The institute will move into the new informatics department building in March 2003 with special labs for visualisation and virtual reality research.



Financing

As an institute of the University of Stuttgart basic staff, rooms and other infrastructure are financed by the state of Baden-Württemberg. Most of the research assistants as well as some special equipment are paid from projects funded by the Deutsche Forschungsgemeinschaft (DFG), by the Federal Ministry of Research and Technology (BMBF) and by the state of Baden-Württemberg.

Current Structure and Important Partners

The VIS group is roughly structured according to the three research foci: visualization, graphical user interfaces, and computer graphics. Local cooperation partners include the Visualization Group of the Computing Center (RUS, Dr.

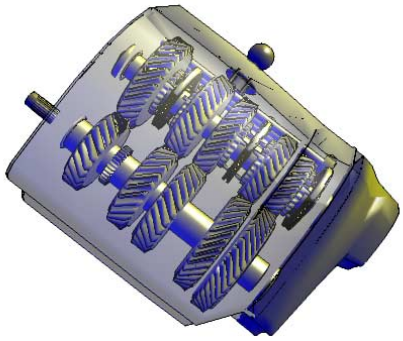
Lang), the VR group of the Fraunhofer IAO, and the Computer Graphics Group of the University of T"ubingen (GRIS, Prof. Strasser). Application partners are the Neurocenter of the University of Erlangen and the BMW Group in Munich.

Current Research

The Visualization and Interactive Systems group conducts research in scientific visualization, computer graphics and human computer interaction, often in collaboration with industrial partners such as BMW and Siemens. Some of the manifold topics are interactive volume rendering via 3D textures and novel PC graphics hardware, volume rendering by cell projection and for non-convex tetrahedral meshes, hardware accelerated registration, segmentation, and visualization of medical datasets, interactive remote and web-based visualization, flow visualization on hierarchical grids, visualization of crash-simulations, terrain rendering, visualization and steering of chemistry and physics computations, benchmarking of OpenGL and its extensions.

Important Recent Project Participations

- "DFG SFB 382", www.uni-tuebingen.de/uni/opx
- "DFG SPP V3D2", www.cg.cs.tu-bs.de/dfgspp.VVVDD
- "DFG FG Nexus", www.nexus.uni-stuttgart.de
- "BMBF AUTOOPT", wwwvis.informatik.uni-stuttgart.de/ger/research/proj/autobench
- "BMBF OpenSG PLUS", www.opensg.org



Important Recent Industrial Partners

BMW, DaimlerChrysler, Audi, Siemens, ETAS, science + computing

Future of the Lab

The institute will continue its activites in the area of interactive visualization by employing modern programmable graphics hardware. Additional research projects will cover information visualization for the life sciences, remote and mobile visualization, non-photorealistic visualization and augmented reality.