FRANCE Rocquencourt/Grenoble

INRIA-i3D

i3D
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Core Competence

3D Interaction, Virtual Reality, Virtual and Augmented Environments

Head of the CGU
Sabine Coquillart

History

The activities of the i3D research group started in 1998 in Rocquencourt and the group now is moving to Grenoble. i3D has installed the first workbench in France, a two screens Tan Holobench.

Staff

1 Research director: Sabine Coquillart
3 Engineers: Boris Mansencal, Tangui Morvan, Nicolas Tarrin
4 PhD students: Jean-Edouard Coste, Jérôme Grosjean, Alexis Paljic, Stéphane Redon
1 Secretary: Sandrine Boute

Rooms and Locations

i3D will soon be located at INRIA Rhône-Alpes (Grenoble), France.

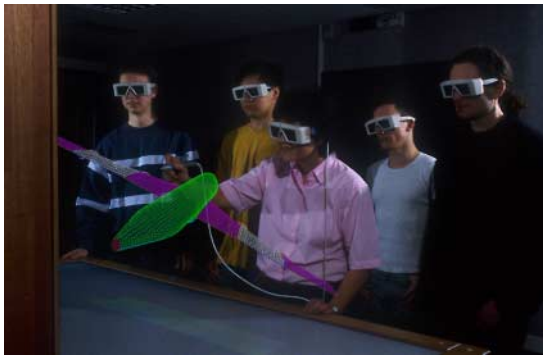
Financing

As an INRIA research group, permanent research staff (1 person), the rooms and other infrastructure are financed by INRIA. Most of the engineers, PhD

students, as well as most special equipment are paid from projects funded by industrial partners or the French government.

Current Structure and Important Partners

i3D cooperates with industrial partners: CEA, Dassault, EADS, IFP, Renault, TGS,..., french academic partners: Siames, Eiffel, Limsi, LaBRI, LRP, Evry University..., foreign partners: GMD, Tokyo Institute of Technology, Technion...

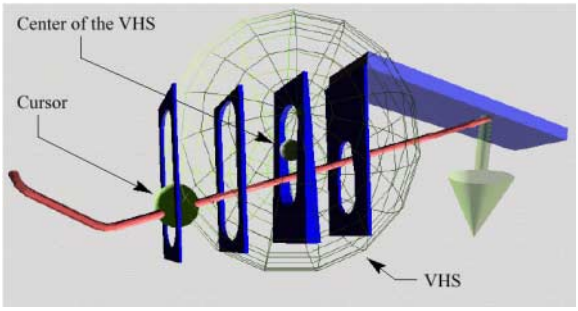


Current Research

The objective of the research in the i3D group is to contribute to making interaction in virtual worlds at least as simple and intuitive as in the real world. These works are based on the Workbench, a configuration that was chosen for it's potentiality in terms of interaction. The research in the i3D group is organized in 3 themes:

The study of interaction metaphors and paradigms. Tasks as simple as moving around in a virtual scene or grabbing and repositioning an

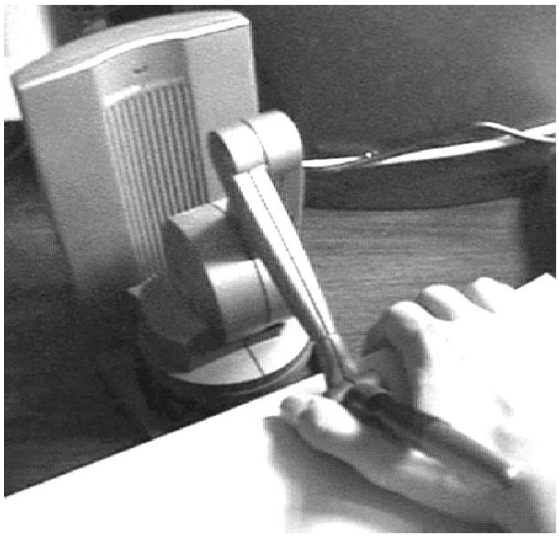
interaction 3D



object are still difficult to complete in a virtual world. The objective of this theme is to study new interaction metaphors and paradigms.

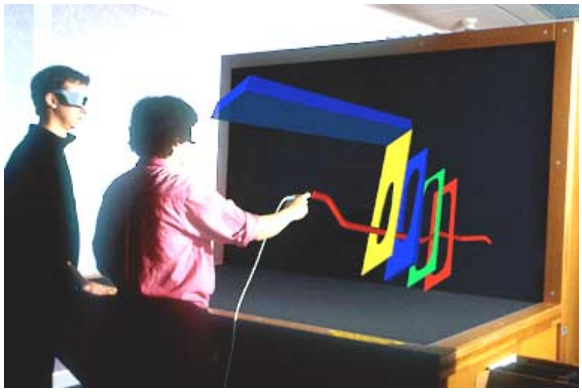
The study of haptic feedbacks. There are several ways to give a haptic feedback: active haptic feedback (requiring the use of a haptic feedback device), pseudo-haptic feedback, passive haptic feedback (makes use of a prop), and sensory substitution. The objective of this theme is to study these different techniques in order to have a better characterization of haptic feedbacks according to the completed task.

Human factors study. Complementary to the two previous themes, the research group aims to carry out experiments each time it is possible. These experiments are either carried out to provide a basis for research in the group: such as psychophysics experiments on human perception or evaluation of existing techniques and peripherals, or to evaluate approaches that are developed in the group.



Important Recent Project Participations

- "PERF-RV", RNTL project, http://www.perfrv.org/
- "VTHD", RNRT project, http://www.vthd.org/anglais/index.html
- "Inventor Immersif", RNTL project



Important Recent Industrial Partners

CEA, Dassault, EADS, IFP, Peugeot, Renault, TGS,...

Future of the Lab

The research group will continue research activities and close cooperation with the current and new partners. i3D will intensify international projects and partners.