

3D Topography in Virtual Environments

- TUDelft Computer Graphics & CAD/CAM group
 - VRLab at TUDelft
 - My PhD work, in progress:

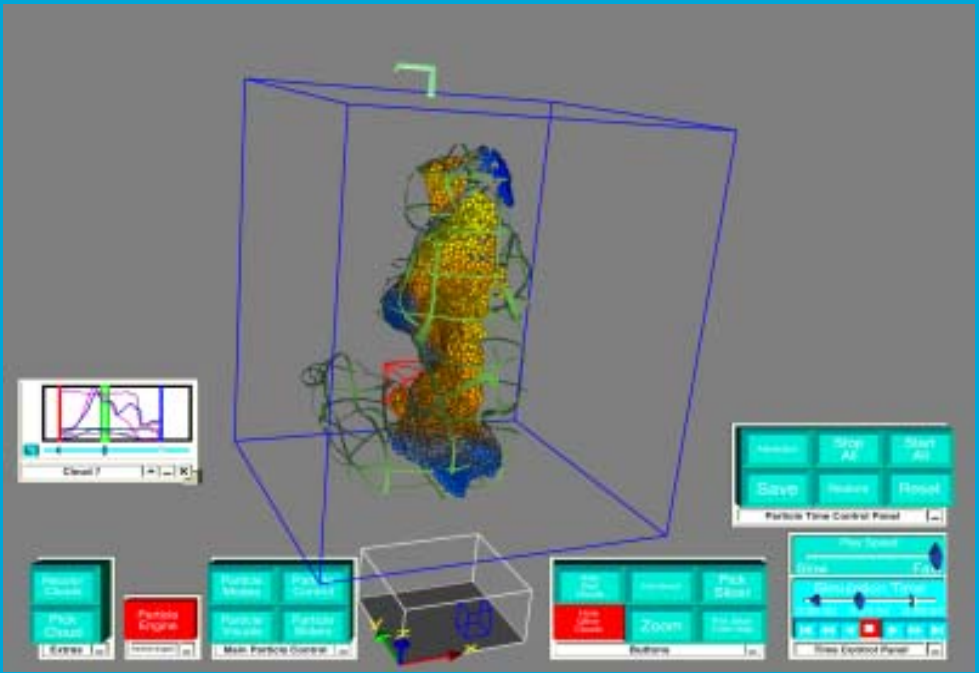
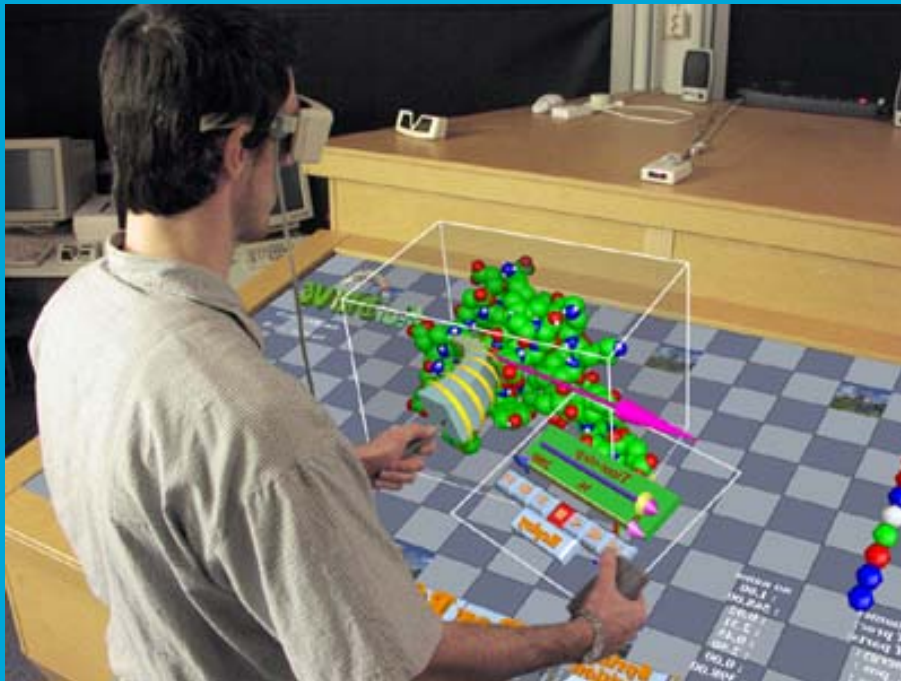
**“Architectures and Techniques
for 3D Interaction in Virtual Environments”**

Computer Graphics & CAD/CAM group

- Rendering
- CAD/CAM
- Serious Gaming
- Data Visualisation
 - Medical Visualisation
 - **Visualisation and VR**

Scientific Visualisation in VR

- Molecular Dynamics, Atmospheric Processes
- Large, time-varying datasets
- Interactive 3D exploration, simulation steering

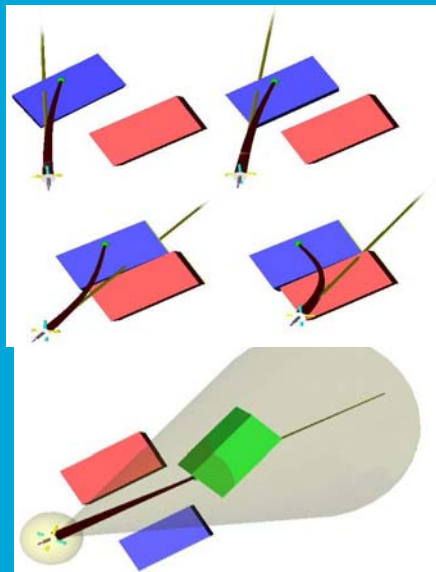
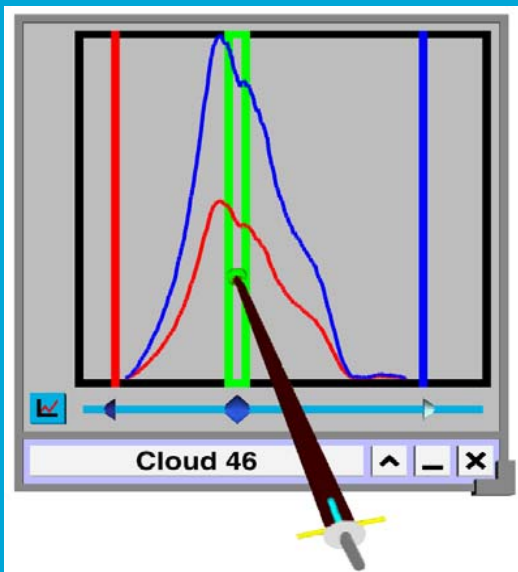


March 7, 2007

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VR Interaction and Hybrid Interfaces

- Two-handed
- 2D/3D Hybrid interfaces
- Application-specific
- Multi-User collaboration

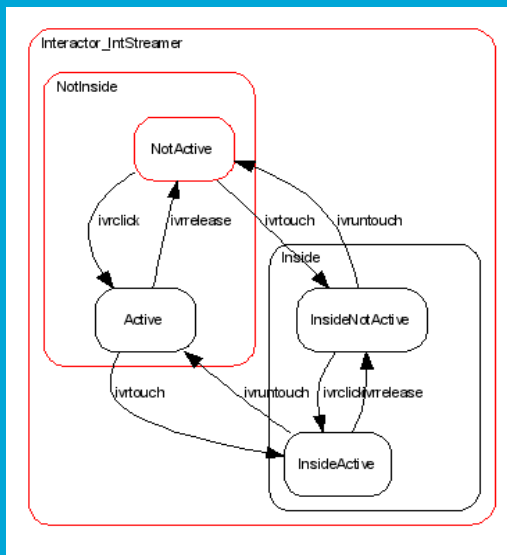


VR for Surveillance

- **Integrating Surveillance Video in 3D models**
 - Avoid information overload for operators
 - Enhance Navigation support (fly-through, following)

VR soft-, hardware prototyping

- Making VR development more accessible
 - Shifts development to **higher-level programming**
 - Integrate in scientific/engineering workflow
 - Design/Development of novel interaction techniques



3D Topography in Virtual Environments

- **Planar display** (and others)
- **Interactive VR for 3D Topography**
 - 3D Navigation
 - Visualisation & Exploration
 - Annotation & Measurements
- **Data Processing, Rendering**
 - TENs
 - Database connectivity, paging
 - (Level-Of-Detail)
 - (point clouds)