

Research into Distributed Virtual Reality for Interactive Visualisation

Shaun Bangay
cssb@cs.ru.ac.za



Luis Casanueva
csuc@cs.ru.ac.za



Soterios Panagou
cssp@cs.ru.ac.za



Michael Preston
mikep@cs.ru.ac.za

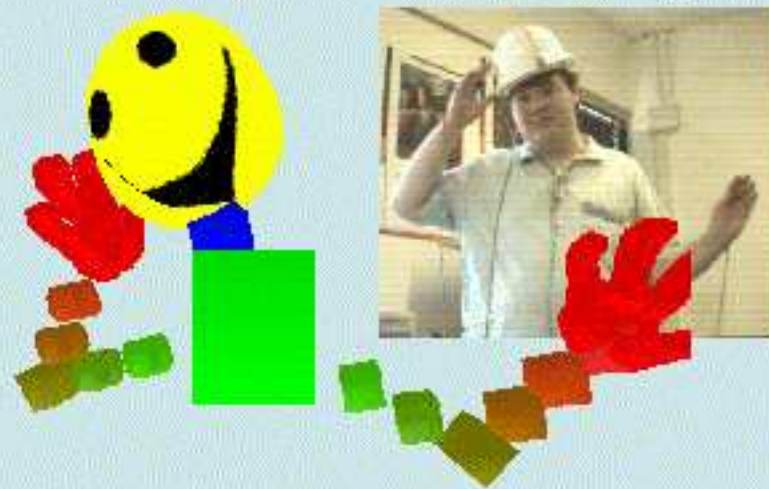


Adrian Smith
csaws@cs.ru.ac.za



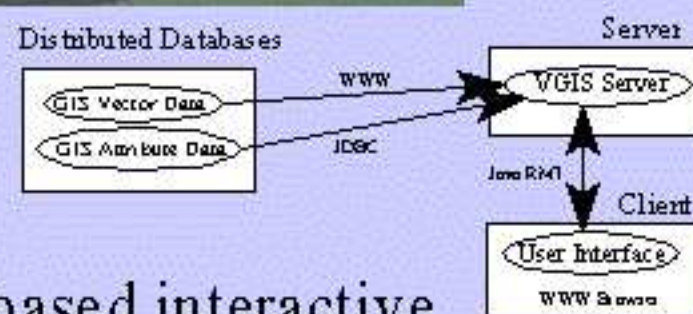
Interactive Visualisation Applications

Virtual Conferencing



- Near real-time articulated figure animation interface
- Minimal use of trackers
- Potential use for conferencing in distributed virtual worlds

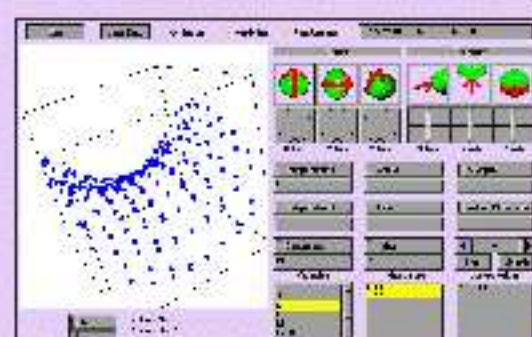
Virtual GIS



- Web based interactive virtual GIS accessing distributed databases

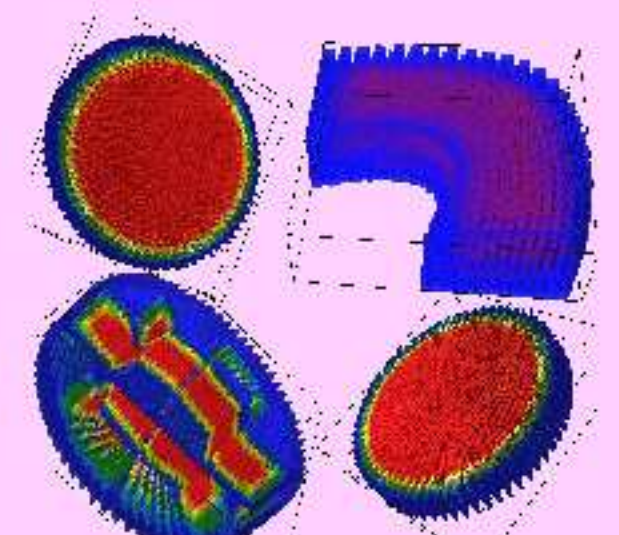
Multi-dimensional Visualisation

- Visualisation of abstract multi-dimensional data-sets is supported
- Specialised techniques are provided for up to 7 dimensions
- A general strategy for arbitrary additional dimensions is provided.



Dynamic Isosurface Visualisation

- Extraction of isosurfaces takes place dynamically, and the time evolution of these surfaces is presented
- Used for real-time, interactive animation of temperature dissipation in a magma chamber



Distributed Multimedia Centre of Excellence



Department of Computer Science
Rhodes University
Grahamstown
6140
South Africa
<http://cs.ru.ac.za>

Distributed Virtual Reality



- RhoVeR is a parallel and distributed virtual reality toolkit.
- It supports a range of applications including terrain visualisation and artificial life simulation

Surround Sound Rendering for Virtual Worlds

- 3D Spatialised sound is created in the spatialisation environment
- It is incorporated into the virtual world as multi-channel audio reproduced over the speaker array.

