

Detailed Outline of Tutorial S15

- Overview

Why visualization is important.

Applications of visualization.

Dataflow reference model: concepts of filter, map and render.

Computational steering.

Examples of current visualization systems.

Demonstration to illustrate the major points of this section of the tutorial – using IRIS Explorer for visualization and computational steering (on one laptop)..

- Distributed visualization

Extending the model to distributed working.

Steering remote simulations.

Linking to the Grid

Issues to consider: minimizing data traffic; security; compression.

Demonstration to illustrate the major points of this section of the tutorial – a distributed visualization example, and a distributed computational steering example using Grid technologies (using IRIS Explorer on laptop plus separate PC).

- Collaborative visualization

Human issues in collaboration

Models for collaborative visualization: application sharing; interlinked dataflow pipelines.

Demonstration to illustrate the major points of this section of the tutorial – a collaborative visualization example, and a distributed collaborative computational steering example using Grid technologies (using IRIS Explorer on two laptops plus separate PC).

- Web technologies and Visualization

XML as a language for describing visualization data and programs

Web services; Grid services