Advanced Visualization and Communications Facilities Supporting Collaboration - The TRACC Collaboratory

Benefits to Users

The TRACC Collaboratory can enrich the meeting experience for all participants. Events that benefit from sharing both video/audio and data among geographically distributed participants are prime applications for the technologies housed at TRACC. The venue can be the TRACC Collaboratory and/or may include distributed sites. Broadband connectivity provides the opportunity to utilize available technologies to collaborate with remote clients, colleagues and partners regionally and globally, without having to physically travel to one specific site, thus making efficient use of time and travel.

The integration and deployment of multiple advanced visualization and communication technologies is unique to the TRACC Collaboratory. This capability allows the Collaboratory to offer dialogues, remote collaboration, formal courses and professional events including distributed meetings and workshops.

TRACC Collaboratory staff work with users to determine the appropriate technological solutions for the optimal meeting experience. The staff will develop the technical requirements for the participating sites and will assist in identifying and enabling sites available to participate in events.

Examples of Hosted Events

Training Classes Transportation research applications produce education and training materials that are valuable to share among collaborators. The TRACC Collaboratory is equipped to service this need using the communication technologies resident in the facility. Examples of training classes previously hosted include: transportation simulation, computational structural mechanics, and computational fluid dynamics. The instructor and students attended at TRACC, and remote students participate from their computers and web browsers. The technology employed is Adobe Acrobat Connect.Using the TRACC Collaboratory for technology transfer is a cost-effective way to disseminate information.

Meetings There is often a need for regular meetings among collaborators. Through the technologies available, TRACC can serve as a host site connecting distributed participants. Both video and data can be shared among participants. Examples of meetings hosted by TRACC include: project updates, quarterly reviews, monthly staff meetings, and seminars. Technology often employed is H.323 videoconferencing.

Conferences/Workshops The conference may have several sites participating; speakers and presentations may be at any of the sites. TRACC hosted a TRANSIMS workshop allowing researchers and developers to meet virtually and share research project information. This conference had four sites (Louisiana, Illinois, New York and Virginia) and used the AccessGrid technology.

TRACC Collaborative Resources

The TRACC Collaboratory offers expanded outreach, training, collaboration, visualization,

and technology enablement activities to users, collaborators, and USDOT partners by providing:

- State-of-the-art outreach and training facilities.
- Collaboration facilities for distributed teams, using advanced visualization and communication technologies.
- Distribution of simulation and modeling results in real-time to various state and regional DOTs, university transportation centers and federal transportation research centers.

The Collaboratory capabilities include:

Wireless Networking

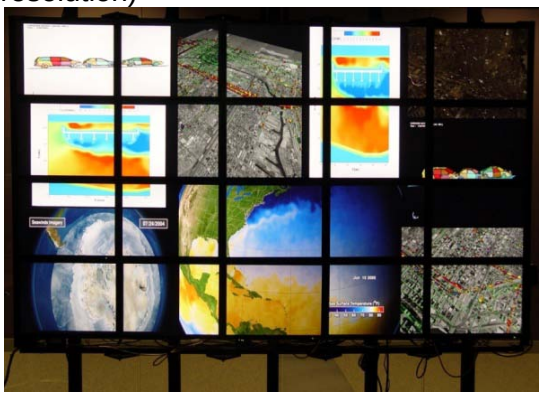
Broadband Access to Global Research and Education Networks

Demonstration and Training Theaters

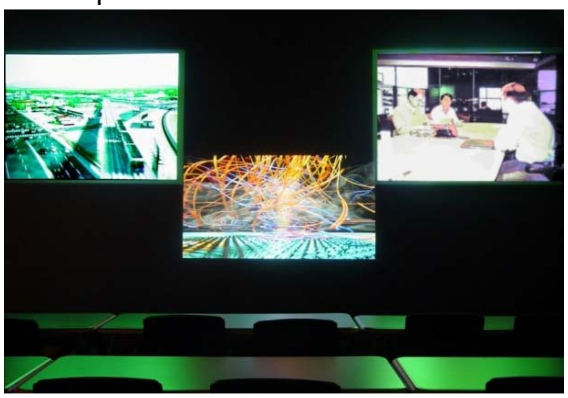
- Two 15' x 18' rear-projection walls
- Video production and streaming system
- Multiple cameras (including High Definition)

High-end Visualization

- Passive stereo virtual reality display
- High performance graphics cluster (20 panel LCD tile display; 8000 x 4800 pixel resolution)



- HD Stereo Theater projection system (1920 x 1080 pixel resolution



Multi-site Video-conferencing Technologies

- Web Conferencing (Adobe Acrobat Connect)
- Multiple Polycom® Videoconferencing Systems (H.323), including High Definition (HDX 8004 and 9004 systems)
- Multiple Access Grid Nodes (also portable AG node equipment)

These facilities are available to:

- Universities and private organizations performing transportation research,
- Organizations funded by federal, state, and city departments of transportation,
- USDOT R&D programs, and
- Other Federal Agencies.

The technologies available at the TRACC Collaboratory can be deployed in your environment as well and the TRACC staff can work with users to help plan, implement and deploy these capabilities to your organization.

For inquires, information, or to reserve the Collaboratory, contact any of the following:

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