

LTER



*Long Term Ecological Research
Network Office*

Ecoinformatics Training and Software Usability Testing Lab

Greg Shore, LNO System Administrator

Overview and History

- Developed in partnership with LNO and SEEK program as state of the art training facility
- Designed to maximize instructor/student contact
- Began installation in Sep 2004 with initial purchase of 21 PC's
- Nearing completion with installation/testing of the A/V system
- Have conducted five trainings since Oct 2004 and several more are planned in the next few months
- Prior trainings held at Sevilleta Field Station

IT Training and Usability Lab

Table 1 - Training in LNO Information Technology Training and Usability Lab

Training	Group
Informatics training for biological field station personnel	Resource Discovery Initiative for Field Stations (RDIFS)
Biodiversity and Ecological Analysis and Modeling (BEAM) ★	Science Environment for Ecological Knowledge (SEEK)
Early Career Faculty and Postdoctoral Training ★	Science Environment for Ecological Knowledge (SEEK)
Data Management Tools Workshop for LTER information managers	Knowledge Network for Bio complexity (KNB)
Data Discovery in the Biological Sciences ★	Resource Discovery Initiative for Field Stations (RDIFS)

★ = **Included usability activities**

Lab Features – Computing Hardware

- **Equipped with 21 high performance SFF PC's**
 - Dual monitor setup w/dual purpose right monitor
- **Organized in 4 pods of 5 systems around Instructor and Auxiliary stations in center**
- **Instructor station with dedicated PC and A/V control console**
- **High speed wired and wireless network**
- **Power and lightning protection systems**

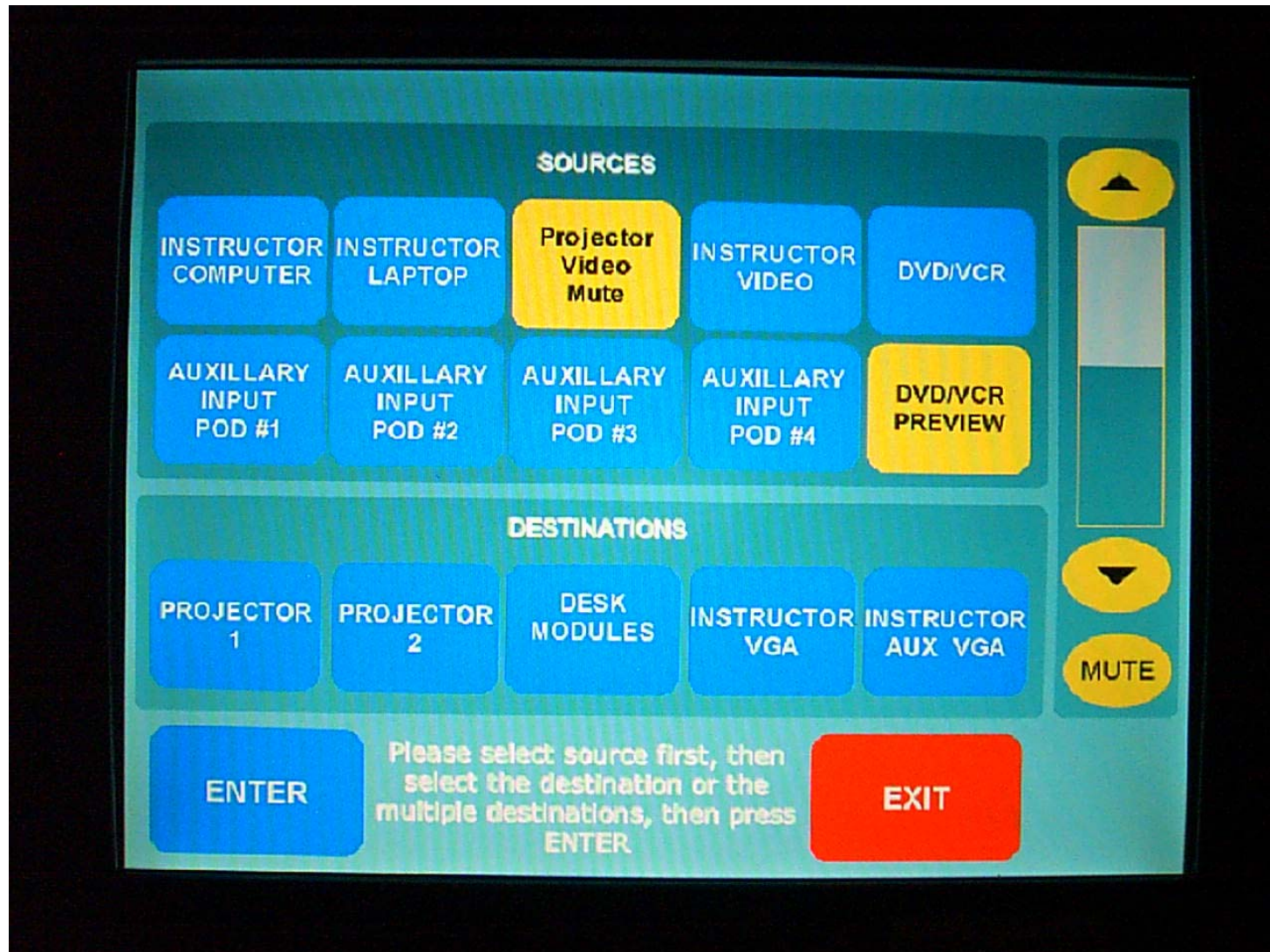
Lab Features - Software

- Managed with Symantec Ghosting tools
- Standard MS Office and Visio desktop productivity tools
- Macromedia web design/management tools
- ArcGIS and Imagine GIS/RS/Image-processing tools
- Various DB management and access tools
- Screen recording software to:
 - Support usability testing and analysis, and
 - Create demos and annotated teaching aids

Lab Features – Audio/Visual

- Equipment rack control center
- Control console at instructor station
- A/V Sources include:
 - Instructor station PC
 - Various auxiliary instructor station input jacks
 - Polycom Video Teleconferencing System (4 session)
 - DVD/VCR player
 - Auxiliary student station input jacks for laptops
- A/V Destinations include:
 - Independent dual high resolution LCD projectors
 - Right hand screen of student PC's
 - Auxiliary instructor station output jacks

Lab Features – A/V Console



Lab Features – A/V Console



A/V Demonstrations

- **Guiding students through procedures**
 - Right-hand screen use perhaps most useful feature
- **DVD/VCR presentations**
- **VTC sessions for remote teacher or participant**
- **Portable laptop presentations**
- **Instructor presentations**

Some Future Enhancements

- **Polycom VTC unit integrated into A/V rack with wall mounted cameras**
- **Large multi-session Polycom VTC capability**
- **Video-cam for recording trainings**
- **Audio source separation**
- **Cable management to reduce spaghetti**
- **Plasma screens**

Conclusions

- With completion of A/V system we now have an advanced training facility easily reachable and located at the LNO to meet the charge and challenges of providing IT training
- High performance computing platform provides for teaching the latest software, processing, and information technologies
- Integrated A/V system greatly improves teaching effectiveness
- Location greatly reduces logistical support and lab management, setup, and technical support
- Location more desirable for participants