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

<table>
<thead>
<tr>
<th>Training</th>
<th>Group</th>
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</thead>
<tbody>
<tr>
<td>Informatics training for biological field station personnel</td>
<td>Resource Discovery Initiative for Field Stations (RDIFS)</td>
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<tr>
<td>Biodiversity and Ecological Analysis and Modeling (BEAM)</td>
<td>Science Environment for Ecological Knowledge (SEEK)</td>
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<tr>
<td>Early Career Faculty and Postdoctoral Training</td>
<td>Science Environment for Ecological Knowledge (SEEK)</td>
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<tr>
<td>Data Management Tools Workshop for LTER information managers</td>
<td>Knowledge Network for Biocomplexity (KNB)</td>
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<tr>
<td>Data Discovery in the Biological Sciences</td>
<td>Resource Discovery Initiative for Field Stations (RDIFS)</td>
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★ = 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