

# Initiatives in Education: Demonstration of the SCOOP Educational Virtual Appliance

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# History of the Appliance

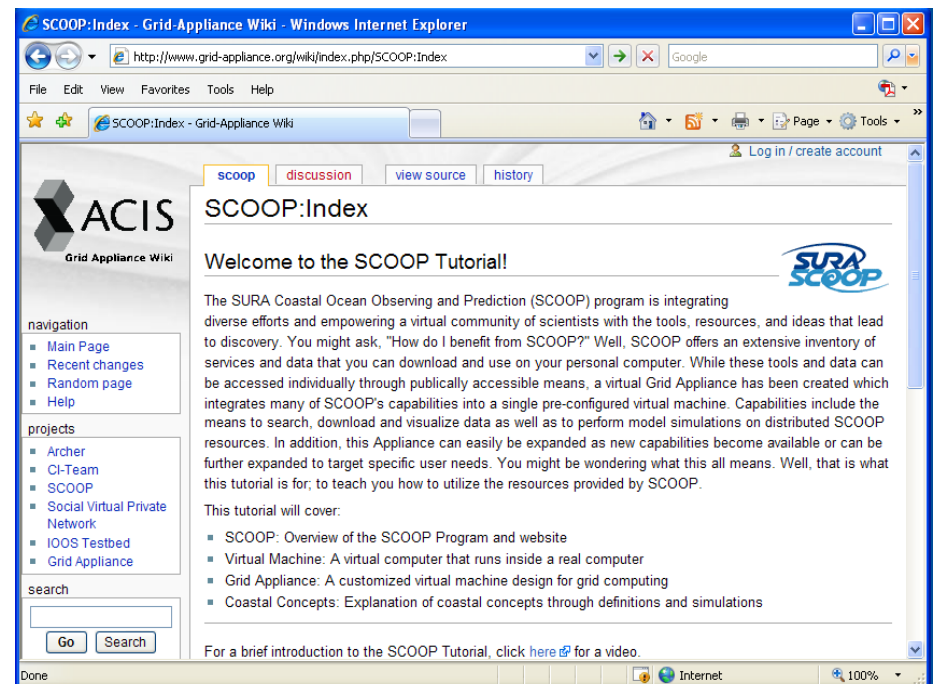
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- Used for educational purposes
  - NSF CI-TEAM project at UF
  - Hands-on sessions in workshops/conferences/tutorials
  - Distributed systems classes  
(Clemson, Arkansas, Northeastern Switzerland)
- Virtual approach
  - All SCOOP software needed to run self-guided tutorial conveniently packaged in a single download
    - Linux, Web server, model, catalog/archive/visualization software, Condor, scripts, ...
  - All that is required it to run (free) virtual machine software

# Overview of Wiki-Based Tutorial

Lessons include:

- SURA and SCOOP
- SCOOP Data
  - Find
  - Download
  - Visualize
- VMware and Grid Appliance
- Coastal Science / CI



# Assistance from SCOOP Partners

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- Catalog Interfaces (UAH – Keiser/Smith)
  - Demonstrate Low Level SCOOP SOAP Calls
  - Reproduce SCOOP Data Search Web Page
- Visualization (TAMU – Creager/Galvarino)
  - Downloaded Appliance
  - Installed SCOOP Visualization Software in Development Mode
  - Returned Appliance
  - Incorporated Visualization into Tutorial

# Benefits

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- Provides easy-to-use coastal science and cyberinfrastructure education to undergraduates and others
- Provides a portable and flexible educational tool for SCOOP for further enhancement and application

# Target Audience

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- Undergraduates in the SURA institutions and others.
- Graduate students in the SURA institutions and others.
- Coastal and Cyberinfrastructure researchers in the SURA institutions and others.
- Stakeholders who might benefit from the SCOOP products.

# Potential Future Enhancements

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- Additional educational content
- Apply the appliance to other research topics such as hypoxia, river hydrology, and ensemble forecasting
- Add other elements of SCOOP cyberinfrastructure
- Add additional forecasting models and products
- SURA Cloud

# Demonstration

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