

# Framework and Tools

## Trilinos Capability Area

**9:30 Tuesday Oct. 29th, 2012**

**CSRI 90**

**Jim Willenbring**

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



- **Overview**
- **Trilinos documentation**
- **Recent advancements and changes**
- **Near-term plans**
- **Package list**

- **General Resources**
  - Tools
  - Build and test infrastructure
  - Documentation
- **Assist users and developers with using, or learning to use, Trilinos**
- **Advance general project infrastructure**
- **Trilinos Home page: <http://trilinos.sandia.gov>**  
(soon to be [trilinos.org](http://trilinos.org), really)

## ■ Capability Areas:

[trilinos.sandia.gov/capability\\_areas.html](http://trilinos.sandia.gov/capability_areas.html)

1. Framework & Tools
2. Software Engineering Technologies and Integration
3. Usability
4. I/O Support
5. Discretizations
6. Meshes, Geometry, & Load Balancing
7. Scalable Linear Algebra
8. Linear & Eigen Solvers
9. Embedded Nonlinear Analysis Tools

## ■ Trilinos user documentation:

<http://trilinos.sandia.gov/documentation.html>

- ♦ Trilinos overview document
- ♦ Trilinos CMake Quickstart
- ♦ Hands-on tutorial
- ♦ Makefile.export / FIND\_PACKAGE(Trilinos)

## ■ Other Trilinos documentation

- Package-specific user guides and Doxygen documentation
- Getting started page for new users

[http://trilinos.sandia.gov/getting\\_started.html](http://trilinos.sandia.gov/getting_started.html)

- Developer resources
  - ♦ Policies
  - ♦ Process checklists



# Recent Advancements and Changes

---

- Trilinos 11.0 release
- Public read-only repository: <http://trilinos.sandia.gov/publicRepo>
- Trilinos.org setup in progress
- Increased percentage of BSD-licensed packages
- Progress on delivering tutorial content via a virtual machine
- Updated tutorial / WebTrilinos installation
  - <http://code.google.com/p/trilinos/wiki/TrilinosHandsOnTutorial>
  - On-demand video of user sessions available after TUG



## Near-Term Plans

---

- Continue trilinos.org migration
- Formal contributor agreements
- Continue move to BSD licensing
- Teuchos sub-packaging
- Improved TPL support



# Package List

---

- **Didasko**
  - Trilinos tutorial package
- **Galeri**
  - Generate distributed linear systems
- **Teuchos**
  - Set of common tools for Trilinos developers
- **TriUtils**
  - Utilities for Trilinos packages