CWP 2012
Infrastructure and Software

John Stockwell
John’s activities

- SEG Wiki administrator
- Seismic Processing Lab Course Notes
  - www.cwp.mines.edu/~john
- Math for Geophysicists
- Seismic Unix
  - www.cwp.mines.edu/cwpcodes
CWP Infrastructure

- Multi-core systems for all
- DELL 64 bit and Mac Desktops
- “MIO:” 384 cores for CWP (Paul)
Software infrastructure

- Linux Fedora 15.0, Mac OS X (Lion)
- Matlab, Scipy, Scilab, Mathematica, Comsol ...
- C, Java, Python, Jython, Fortan, Matlab, OpenMP, MPI,...
- Madagascar, SU, Mines JTK
CWP Confidential software

- Confidential (3 yr) Codes
- Open Source codes (most)
- Codes by request
Open Source CWP software

- Madagascar - Paul Sava (w/ Sergey Fomel)
- Mines Java Toolkit - Dave Hale
- Seismic Unix, CWPMatlab
Confidential Codes

• 59 packages (released so far)
• Sponsor Web (secure)
• Call or e-mail CWP for details
Sponsor Web page

• Documents - all sponsors
  — includes slides, papers, the USB, and more

• Software - full sponsors only
  — new software items

• — contact us for login info
Seismic Unix - 26 years!

- Open source
- current release 43R2
- 4200+ known by direct email
- 81 countries and territories
- 1200+ active listserver members
SU News

- Restructuring of the package
- More than 20 new codes
- C99 compliant
SU online archive (beta)

- code.google.com/p/seismicunix/
- Google code/Mercurial
- Ricardo Bilotti (Unicamp)
- Reg Beardsley (independent)
SU Wiki

- www.seismicunix.com
- Mike Stone (Act3Solutions)
- Gerhard Diephuis (TU Delft)
- Oleg Poliannikov (MIT)
New CWP Software

- Mines JTK (Dave)
- Madagascar (Paul)
- SU (John)
- Matlab, DDS, Seismon
- Contact fac. advisor or student.
New Codes
Xioxiang Wang

- Iterative TTI model building
- C, Matlab, and SU
Jyoti Behura

- Newton-Marchenko-Rose modeling and imaging
- Internal multiple prediction
- Fortran, DDS
Alison Knaak

- Synthetic aperture in CSEM
- 3D diffusive field steering
- Matlab
Codes under development
Michael Behm

- Seismic interferometry
- Local earthquake and noise application
- Matlab, MySql: Seismon
Simon Luo

- Unfaulting and unfolding of seismic images
- Estimates fault locations and throws
- Java, Mines JTK
Bharath Shekar

- Dynamic ray tracing
- anisotropic attenuating media
- prototypes in Matlab, C code later
Farhad Bazargani

- Subductive slab modeling
- by optimized fit to data
- Java, Jython
Important Addresses

• www.cwp.mines.edu/sponsor
  (Sponsor Web Page, talk to John)

• www.mines.edu/~dhale/jtk
  (Mines Java ToolKit, talk to Dave)

• www.reproducibility.org
  (Madagascar, talk to Paul)
Thank you for another great year!