



Moment Tensor code for the Antelope Environmental Monitoring System

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The seismic moment tensor inversion software package written by Dreger (2003) and updated by Minson & Dreger (2008) has been rewritten for inclusion into the open-source contributed code repository for the Boulder Real Time Technology (BRTT) Antelope Environmental Monitoring System (http://github.com/antelopeusersgroup/antelope_contrib). The new code-base was written natively in the Python language and utilizes both the Python interface to Antelope (Lindquist et al., 2008) for computation and the ObsPy library (Beyreuther et al., 2010) for graphical representation. The new moment tensor code uses the Center for Seismic Studies (CSS) 3.0 schema, and can be added to any real time earthquake monitoring system that uses the schema for post-event creation of moment tensor solutions. Converting the original code-base (Dreger, 2003; Minson & Dreger, 2008) from a combination of configuration scripts, Numerical Recipes for C, Seismic Analysis Code (SAC), the Fortran FKRPROG package (Saikia, 1994), and the various intermediary files in ASCII and binary formats greatly simplifies the installation and deployment of the software for use in Antelope Environmental Monitoring systems. All configuration files have been converted and condensed into a format familiar to users of the BRTT software suite. This presentation will show real-world examples of the new code-base using the Anza broadband seismic network operated by the University of California San Diego in southern California.

References:

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