

FEATURES

- Automated operation
- Wide range of options
- Fast results dissemination

SMARTShake is a real-time fully automated application for high quality earthquake data processing from a network of strong motion accelerometers.

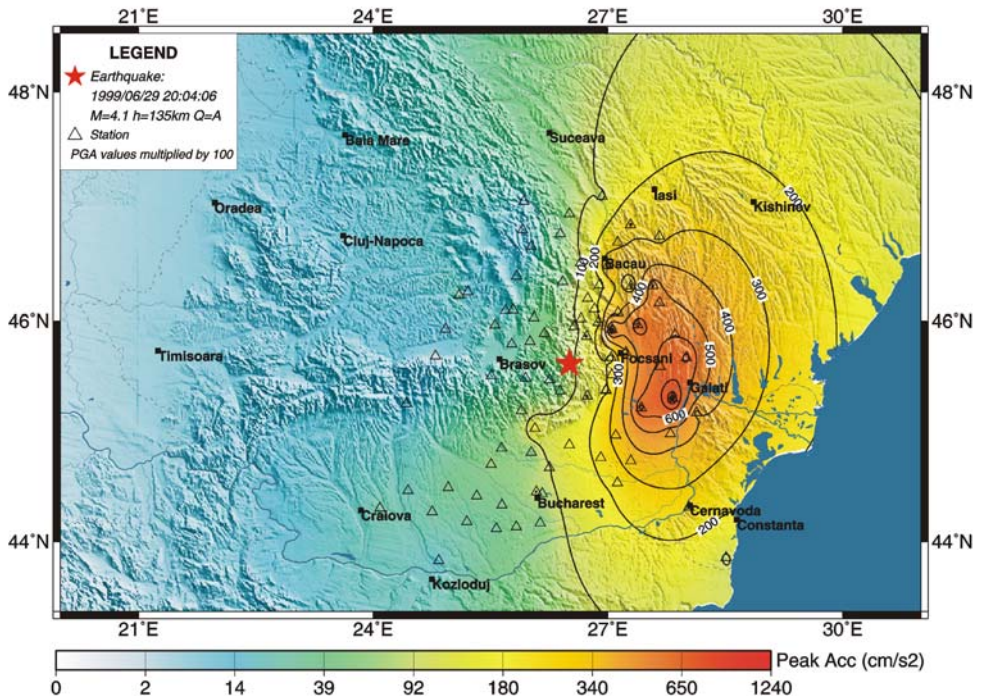
SMARTShake complements SMARTQuake® which processes weak motion data. However, **SMARTShake** can also operate without SMARTQuake®, receiving data directly from SMARTGeoHub® or from any other application producing continuous 32-bit SUDS files.

SMARTShake selects strong motion events recorded on acceleration data channels for PGA, band-pass filtering and then FPGA determination, gridding, contouring, and plotting of color 3-D Shake Maps with isolines. Optionally, Arias intensities and Cumulative Absolute Velocities are also computed and then plotted in the same way.

SMARTShake can send by email and post on a Web server selected Shake Maps for rapid results dissemination.

SMARTShake Automated Strong Motion Processor

PGA Map - Event 1



Maximum PGA values are far from epicenter

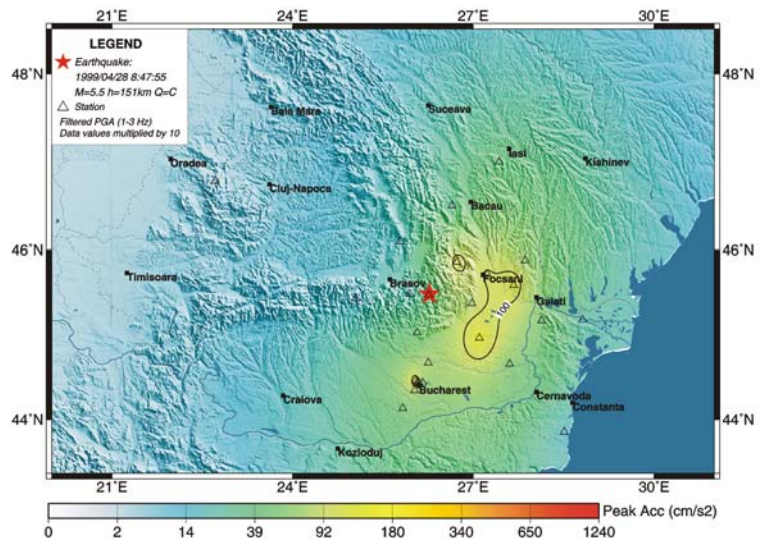
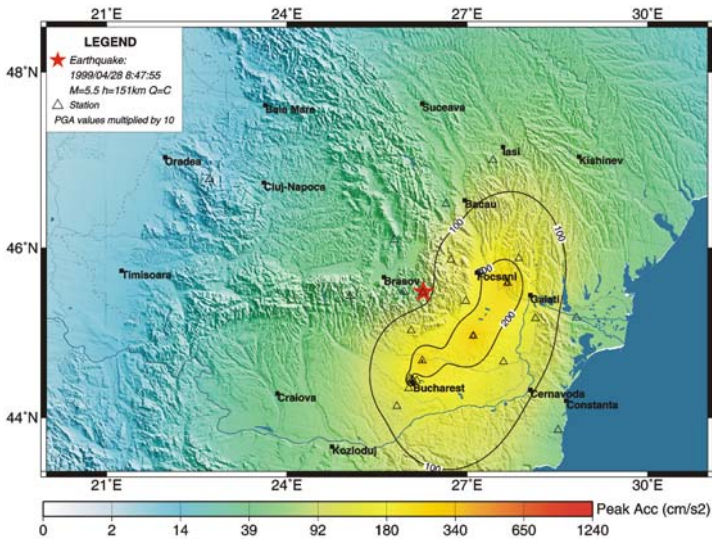
SMARTShake OUTPUT EXAMPLES

PGA Map:

FPGA Map for the same event on the left:

PGA Map - Event 2

2 Hz Filtered PGA Map - Event 2



SMARTShake is also an optional module in **SeisPlus** interactive software package for off-line processing of acceleration data (if MathPlus module is also present).

PGA values of filtered acceleration waveforms are a more robust estimate than the high frequency dominated PGA values, which show more variability and inconsistency.