SeisComP 3 - Where are we now?

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The seismological software SeisComP has evolved within the last approximately 10 years from a pure acquisition modules to a fully featured real-time earthquake monitoring software. The now very popular SeedLink protocol for seismic data transmission has been the core of SeisComP from the very beginning. Later additions included simple, purely automatic event detection, location and magnitude determination capabilities.

Especially within the development of the 3rd-generation SeisComP, also known as "SeisComP 3", automatic processing capabilities have been augmented by graphical user interfaces for vizualization, rapid event review and quality control. Communication between the modules is achieved using a a TCP/IP infrastructure that allows distributed computing and remote review. For seismological metadata exchange export/import to/from QuakeML is avalable, which also provides a convenient interface with 3rd-party software.

SeisComP is the primary seismological processing software at the GFZ Potsdam. It has also been in use for years in numerous seismic networks in Europe and, more recently, has been adopted as primary monitoring software by several tsunami warning centers around the Indian Ocean.

In our presentation we describe the current status of development as well as future plans. We illustrate its possibilities by discussing different use cases for global and regional real-time earthquake monitoring and tsunami warning.