



QuakeWatch - real time software for distribution of earthquake and tsunami alerts via the Internet

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Tsunami warning centers provide rapid warning about impending tsunamis for coastal communities, and the warning messages are transmitted primarily to a small group of emergency responders through state, federal, and international emergency warning systems. The warning is usually issued to the citizenry by local officials, and the procedures for issuance are non-standard and time-consuming. QuakeWatch is a software developed by the California Integrated Seismic Network in cooperation with ISTI that provides a way to transmit the warning and related seismic information to all clients instantaneously. The software operates on all popular operating systems, receives information via the Internet, and can be configured to generate audible and visible alarms as well as short text messages to pagers and cell phones. It provides the means for tsunami warnings to be delivered directly to emergency responders anywhere in the world where Internet access exists. Primary users will include emergency operations centers, utility companies and media outlets. The QuakeWatch system has been designed to address the technical demands of disseminating alert information to many users with a minimum of delay. CISN Display is a QuakeWatch client program written in Java that runs on a client's computer and receives earthquake information via the Internet from dedicated "QuakeWatch" servers. The program automatically displays maps of earthquake epicenters and, if available, a "ShakeMap" that depicts the geographical extent of strong shaking together with parametric information about the earthquake. CISN Display uses open-source GIS software that enables the user to zoom to any map scale and import GIS layers to display local features such as roads, critical facilities, geopolitical boundaries, and bodies of water.