

Development of XML schema for broadband digital seismograms and data center portal

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There are a number of data centers around the globe, where the digital broadband seismograms are opened to researchers. Those centers use their own user interfaces and there are no standard to access and retrieve seismograms from different data centers using unified interface. One of the emergent technologies to realize unified user interface for different data centers is the concept of WebService and WebService portal. Here we have developed a prototype of data center portal for digital broadband seismograms. This WebService portal uses WSDL (Web Services Description Language) to accommodate differences among the different data centers. By using the WSDL, alteration and addition of data center user interfaces can be easily managed. This portal, called NINJA Portal, assumes three WebServices: (1) database Query service, (2) Seismic event data request service, and (3) Seismic continuous data request service. Current system supports both station search of database Query service and seismic continuous data request service. Data centers supported by this NINJA portal will be OHP data center in ERI and Pacific21 data center in IFREE/JAMSTEC in the beginning. We have developed metadata standard for seismological data based on QuakeML for parametric data, which has been developed by ETH Zurich, and XML-SEED for waveform data, which was developed by IFREE/JAMSTEC. The prototype of NINJA portal will be released from the ERI and IFREE web page in the first half of FY2008.