

Minutes of FDSN Working Group III on Software Coordination 23/01/2001

Mt. Fuji Hotel, Japan

The working group meeting was attended by 9 people including, Hanka (GEOFON), Liu and Zhou (China), Takechi and Tsuboi(Pacific-21), Dayre and Roul (GEOSCOPE), Firbas (CTBTO) and Ahern (IRIS).

Ahern reviewed the charge of the WGIII on software coordination. Activities are focussed on 1) maintenance of existing software libraries and the management of the inventory of such software and 2) coordination of future software using object-oriented techniques such as JAVA, CORBA and RMI.

Since ORFEUS has taken the lead on software libraries and no ORFEUS representative was present, the discussion on object-oriented approaches was discussed first.

Each group present presented a brief summary of their current activities. China is planning on using JAVA for some developments in the future, GEOSCOPE is developing Java NetDC applications around the PDCC. GEOSCOPE has a dataless SEED reader in Java but it is using their own classes. Dayre indicated that he would like to add XML and Enterprise Java Beans to the topics discussed within this working group. The group seemed to think that this was a good idea.

Takeuchi indicated that the Ninja Network Data Center system is mostly written with Java and they will continue to have interest in this area. Tsuboi said that RMI does things in a manner similar to CORBA and in the future the difference may disappear. Ahern commented that both CORBA and RMI use the Internet InterOperability Protocol or IIOP. And so they are closely related but that CORBA is language neutral as well as being a method to support distributed computing.

The working group agreed that we should attempt to standardize on the seismic classes that we are using. As a first step, each member will distribute their class definitions they are currently using to the FDSN listserver and we will all make comments.

Hanka described the Meridian project. The goal is to improve data availability in Europe and that this project wants to make use of Java for platform independence and perhaps format conversion.

The discussion turned to XML (eXtensible Markup Language). One uses XML to define the document and in this way the document defines the language as well. Ahern indicated that his view of XML was that it allowed one to define physical entities such as seismic networks and the words used to define them. For instance a network is made up of several stations, that in turn possess several channels. A station might have an engineering visit made, a channel might have a new sensor attached, and that all of these things can be described in an easy to understand manner using XML.

The working group expressed interest in standardizing XML within the FDSN. Ahern indicated that IRIS was considering one specific application where XML might be appropriate. In this manner a strawman for XML tag definitions may be circulated. The specific project within IRIS is the implementation of a station history technique

using XML and IRIS will keep the FDSN WGIII informed as it is developed.

--- Submitted by Tim Ahern, Chair of WGIII