

**FDSN - WG-V Portable Instrumentation**  
**Minutes from 1 July, 2011 meeting**  
**Melbourne, Australia**

The WG-V meeting was held from 12-1:30pm, on 1 July, 2011 at the IUGG/IASPEI meeting in Melbourne, Australia. The list of attendees is provided in the table at the end of this document.

The chair of WG-V (A. Brisbourne, SeisUK) was unable to attend as was his second (J. Gridley, IRIS/PASSCAL). Therefore, the discussions were lead by K. Anderson (IRIS/GSN). As a result, the meeting was more a discussion of topics from the previous meeting (Cape Town, SA) with some new topics added and did not include some of the more formal aspects of the typical WG meeting (approval of 2009 minutes, charter review, discussion of chair/vice chair positions, etc). These deficits can be remediated via virtual meeting (email) at the discretion of the WG-V chair. Regardless, we were able to come up with a list of recommendations for the FDSN general session that will be presented later in this document.

**Discussion of WG-V areas of interest**

Data archive formats:

The previous meeting included a discussion of the promotion of uniform data archive formats. This discussion continued and IRIS put forward the proposal that for passive experiments, data be exchanged in SEED format and active source experiment data be exchanged in SEG-Y format. There was general agreement within the group that this be accepted with the caveat that there are a few forms of the SEG-Y format available.

Open data access:

The group endorses the open access to portable experiment data recognizing that various groups and funding agencies have a variety of exclusivity periods associated with their experiments (IRIS/PASSCAL – 2-years by default; IRIS/USArray/FlexArray – no moratorium by default, but PI’s may request 2-years; SeisUK – 3-years; France and most of Europe – 3 years, etc).

Inventory of portable instrumentation:

For IRIS/PASSCAL, this is currently available on the PASSCAL website. ORFEUS reports that their inventory is up to date. There was a discussion of whether this inventory could help groups coordinate on integrate RAMP (rapid-access mobile array) deployments for significant aftershock studies. It seemed that coordinating an equipment pool had been accomplished in the past, but was very complicated. Certainly, it is of interest to coordinate on aftershock studies, but lending equipment across international programs seemed difficult.

T. Barton (GA) reported that the inventory of the Australian portable equipment is part of their ANSIR program (National Research Facility for Earth Sounding) with

the instrumentation distributed between the Australian National University (passive seismic), Geoscience Australia (active seismic) and the University of Adelaide (magnetotelluric). In addition, GA supports 12 RAMP equipment sets that are geographically distributed around Australia (4 in Canberra, 4 in Adelaide, and 4 in Perth).

#### Links to Ocean Bottom Seismometer (OBS) pools:

The group indicated a continued interest in maintaining links to the OBS crew, recognizing that this group can be quite distinct from the standard active/passive seismic representatives in this working group. Anderson mentioned that IRIS has been awarded the OBSIP management office contract to manage the OBS pool within the US (coordinating with the three major OBS operators at WHOI, Scripps and LDEO) and this may help improve the ties between FDSN and the OBS pools. This effort is just now beginning, so perhaps the next WG-V session will be a better time to discuss the IRIS interactions with the OBS community.

Sleeman (ORFEUS) states that ORFEUS currently includes their OBS experiments. IRIS will most likely include the OBSIP experiments in the PASSCAL-type mapping tool/experiment database as a part the OBSIP management office.

#### Experiment Mapping tool:

An interactive mapping tool was presented as developed at PASSCAL. There was general agreement that this was a good tool. Is this available for other FDSN partners to use? There was a continued endorsement of the concept of an integrated mapping/project database tool at FDSN

#### Best Practices Documentation:

It was recognized that a link to best practices documentation from the FDSN page would be very helpful. There was a discussion of documentation formatting, but it was felt that the FDSN page should not try to reformat any of the existing document sets in order to minimize the workload on FDSN members. However, there would be some value in categorizing the best practices links by topic. Some preliminary categories include installation techniques, engineering portfolios, power system designs, communications, extreme weather enhancements, etc. FDSN members should send appropriate links to the chair so that a links page can be established on the FDSN webpage (may be appropriate to both WG's I and IV).

#### Data Quality:

Anderson presented that IRIS is revamping its quality control processes and procedures and that there were new tools being developed at the IRIS DMC that should enhance IRIS's ability to perform QC on the archived (portable) datasets. This new development was just funded and is expected to be completed in the next 18 months or so. Although these new tools will most likely not be open source, perhaps a demonstration of the tools and a discussion of the framework at the next FDSN meeting can help other FDSN partners with the development and implementation of similar QC tools for the portable experiment datasets.

### PQLX issues:

There was a brief discussion of the issues associated with the change in the distribution of future versions of PQLX. Nanometrics has secured the rights for the sale of updates of the PQLX software from Richard Boaz. The initial indication was that past versions would still be free and open, but there would be no further support or updates without a purchase order through Nanometrics. IRIS is currently negotiating their arrangements with Boaz and suggest that other FDSN organizations that depend on PQLX look into their arrangements with Boaz and Nanometrics, as necessary. IRIS intends to continue to distribute the free-open (older) versions of PQLX as legally allowable.

### **WG-V Resolutions/Recommendations/Statements:**

#### 1) Portable Experiment Data Formats:

FDSN would like to establish a standard for data formats for the exchange of portable seismic data (passive and active source). The group recommends that SEED be the format for passive experiments and SEG Y for active source experiments.

#### 2) Portable Experiments Integrated Mapping Tool:

FDSN should have a goal of hosting an integrated mapping tool for providing spatial representation of past, present and future portable experiments.

#### 3) Best Practices Documentation:

It would be valuable to collect links to portable experiments best practices on line documentation to be displayed on the FDSN webpage.

#### 4) Data Quality Control:

-The group felt that data quality control of portable experiment data is very important and WG V should review available techniques to applying automated QC tools to this important data set.

FDSN WG-V Attendees to 1 July, 2011 meeting

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