

Minutes from CHPS Meeting Thursday May 22, 2008

Attendees:

NCRFC - John Halquist

ABRFC - Billy Olsen

NWRFC - Joe Intermill

Deltares - Karel Heynert

OHD - Pedro Restrepo, Jon Roe, Joe Gofus, Chris Dietz

OCWWS – Mary Mullusky, Randy Rieman

Pre-reading:

- Document “wgrfcproducts.xls” distributed to HICs and others on 5/19/08
- Document “TIM_Hydro_Report_20080429.doc” distributed via the chps_migration list on 5/19/08
- Email from Rob Shedd to Jon Roe subject: “RES-J and CHPS” distributed via the chps_migration list on 5/22/08

1. Discussion of WGRFC’s list of products and services

How much overlap for CAT RFCs is there with WGRFC’s list of products and services? For NCRFC, it’s a fairly substantial overlap.

Goal will be to interview each RFC to define individual set of products. Suggestion was made that we use the June workshop to get more details for CAT RFC products.

WGRFC mentions XML – Deltares suggested that we use SHEF as our database export format. But SHEF is too limiting so we don’t want to restrict ourselves at the outset. However we still don’t have a schema for use in hydrologic forecasting; HydroXML went nowhere and is without funding this year. What about WaterML? WaterML is mostly observation oriented, not forecast. The USGS manages their own data internally, but they make it available to external users in a variety of formats including WaterML. Jon attended a data exchange meeting hosted by the EPA on May 15. Two mechanisms seem to be gaining ground: the EPA’s own schema for water quality (biological, chemical); and WaterML for scientific research/data exchange. OpenMI (adopted by Delft) is not for hydrologic data exchange. Karel offered Deltares’ help/input based on their experiences with other users in the hydro community to assist with XML schema. Karel’s observation is that the issue which takes the longest to resolve concerns how to “flag” data (e.g. as unreliable) – there are often too many different options for implementation. The EPA schema, for example, is very detailed wrt collection of data samples, but there is too much optional data.

WGRFC also mentions “ESRI GIS”. Do RFCs generally use the ESRI suite for GIS applications? ArcGIS isn’t available for Linux. Some sites run it on the old HP-UX machines; some run it on a PC outside the AWIPS firewall; some get permission to connect

a PC inside the AWIPS firewall and run it there. AWIPS release 8.3 contains GRASS. We don't know if AWIPS II will support ESRI tools; Raytheon's GeoTools is only a library so someone would have to write higher level applications.

2. Future of the "X Programs"

Draft version of the TIM summary was sent to the list. Not for general consumption – must be approved by SEC/Raytheon.

XDAT discussion: should work in AWIPS II because XDAT doesn't touch the fs5files, only the ihfs_db. Also AWIPS II/CAVE will contain HydroView – we should be able to compare functionality with XDAT when that's released. Eventually, though, we will want something that's CHPS-friendly, but not at first.

XNAV discussion: discrepancy between TIM summary and TIM discussions. Not clear whether Raytheon will/should provide equivalent functionality in AWIPS II. XNAV accesses fs5files which won't be addressed by Raytheon in AWIPS II. Where does XNAV sit – AWIPS II or CHPS?

- There are some limitations with XNAV that we wouldn't want to replicate in CHPS – e.g. every time the basin files change, RFCs need to automatically re-generate the geo files.
- We don't want CHPS to duplicate functionality that's already in AWIPS II. John prefers that spatial display of data (e.g. filling polygons with values) remain in CHPS.
- FEWS already contains much of the basic XNAV display functionality.
- WFOs need some XNAV capabilities but they won't have CHPS, so by definition CAVE must contain some RFC/WFO common functionality.
- Issue: the existence of 2 different databases would introduce discrepancies between the two data sets. Grids might be edited in GFE, sent as forcings into CHPS, then viewed and manipulated in FEWS. The two systems would then have different data - how do we reconcile them?
- Could we cleanly split functionality between CAVE and CHPS? Maybe keep met data in AWIPS II, keep hydro data in CHPS?
- Are there any features which *should* be in CAVE rather than CHPS? What about data display in geo (grid, point), status of rivers, observations hydrograph, edit data in ihfs_db? Some of these are already in HydroView and will be migrated to CAVE.
- What about a single application which does everything? Unlikely, given the constraints of AWIPS II and CHPS.
- Could we set up a database sync mechanism? Bear in mind we want to minimize the path from data ingest to model run for efficiency. In future we could make better use of the ESB so that automatic updates are made to the dual data storage areas, regardless of which system the changes come from. The forecaster certainly doesn't want to bounce between 2 systems while QC'ing data. Whose responsibility is it to QC data – RFC or WFO? That has never been properly resolved since forecasting procedures were automated; policy has never been applied universally across the agency.
- We must decide on XNAV asap; we can't wait till the June workshop. Jon only has 2 or 3 weeks to influence T.O. 10. Agreed approach:

1. Jon will submit his notes to SEC; CAT members must let Jon know ASAP if they have any concerns with what his notes say about XNAV.
2. Billy volunteered to have someone capture the functionality of XNAV (this was done once before when XNAV was put into the AWIPS baseline – can begin there). Results will be ready by next Thurs 5/29/08.
3. Should we then poll other RFCs? All agreed they're comfortable that ABRFC's XNAV usage covers a good 90% of XNAV usage for all RFCs; saves time if we don't have to poll.
4. Using this report, HSEB will determine what XNAV functionality is covered by HydroView and will be in CAVE.
5. What remains: features in XNAV not covered by CAVE that are candidates for CHPS.
6. Using CAT call(s) Deltares will lead an effort to discuss what should be included in CHPS, and whether FEWS or OHD must provide
7. T.O. 10 proposal is due to SEC May 30; we probably get one week to review – suggests we need final resolution for XNAV by 1st week in June

XSETS discussion: only issue is that XSETS needs to send data offsite, so it needs to hook into communication system. Is distributeProduct in AWIPS II? Yes (from the TIM). Then XSETS will work OK in AWIPS II.

3. CHPS Hardware discussion deferred until 5/29/08

4. Other

Rob Shedd sent an email to Jon about a demo/GoTo meeting on CHPS for all RFC staff, not just HICs and DOHs; this was an action from the last HIC conference.

HICs are looking for something they can 'carry around' with them and show others.

Suggested that we prepare a recorded demo - must not be "half-baked", must not have slow performance or else it won't be successful. Suggest we target June – after CHPS workshop (w/c June 16) but before DOH conference (w/c July 14). Karel agreed to record a general demo; Joe Intermill agreed to record a demo using the NWRFC system. The whole thing shouldn't take more than an afternoon to prepare.

The recording can then be presented to as many RFC personnel as HICs want, via GoTo (or similar). Recording can then be made available on the web.

Old Action items from previous weeks (date format for action items is MMDDYY-n):

*041708-1. OHD (?) will look into how to adapt HL-RDHM for CHPS BOC, and will put a placeholder in the project plan, with details to follow later. **Open; Chris considering adding Zhengtao Cui to the development team so he can adapt HL-RDHM.***

- 041708-2. Karel will set in motion discussions with Deltares hardware engineers concerning specs for CHPS, earlier than originally scheduled. **Open. Scheduled for discussion on 5/29/08.**
- 041708-3. Pedro agreed to discuss use of FY08 funds for CHPS hardware with Gary Carter. Update 5/8/08: Pedro has begun working this. Waiting for the CAT to discuss Deltares proposal (see action 041708-2) so Pedro can give Gary an estimate. **Open.**
- 042408-1. **Closed.**
- 042408-2. Karel to provide FEWS ensembles documentation to the CAT before the meeting in Portland next week; Karel also to provide a link to the UK Environment Agency offline/test system so the CAT can take a look at their use of ensembles. **Open.**
- 042408-3. Create a post-BOC document. [Who?] **Open.**
- 042408-4. **Closed**
- 042408-5. **Closed**
- 042408-6. **Closed**
- 042408-7. **Closed**
- 042408-8. OHD HSEB to make Res-Sngl available to CAT sites as soon as it's ready for release rather than have RFCs wait for the next Deltares release. **Open. Waiting for OHD software team to complete.**
- 042408-9. Deltares to provide OHD with feedback on TimeSeries ID change in FEWS. **Open. Deltares to present design w/c June 16 2008.**
- 050808-1. Chris to check "Migration Strategy Plan" timeline against Karel's timeline to see how well they match up. **Open.**
- 050808-2. Harold to update the "NWS CAT Migration Strategy Plan" to show December 2008 software installation and test activities; and to show January 2009 as a training workshop. **Open.**
- 050808-3. Karel to set up a CHPS project Wiki page. **Open.**
- 050808-4. Chris to schedule Seann to update the CAT on FldWav-to-HEC-RAS activities/progress at the June 14 workshop. **Open.**

New action items this week:

- 052208-1. Chris to schedule discussion of CAT RFC products and services during June 14 workshop. **Open.**
- 052208-2. CAT to decide on XML schema for output from FEWS time series database. Deltares to assist with definition based on other FEWS users. **Open.**
- 052208-3. CAT members to let Jon know ASAP if they have any concerns with what his TIM notes say about XNAV. **Open.**
- 052208-4. ABRFC to send results of XNAV analysis to CAT by Thurs 5/29/08. **Open.**
- 052208-5. Deltares to provide recorded FEWS demo to CAT by July 4. **Open.**
- 052208-6. NWRFC to provide recorded CHPS demo of NWRFC configuration to CAT by July 4. **Open.**
- 052208-7. OHD to arrange GoTo-style presentation of recorded material (see actions 052208-5, 052208-6) for all RFC staff. **Open.**
- 052208-8. OHD to post recorded material from action 052208-7 on Web. **Open.**

Next meeting: Thursday 5/29/08. Topic of discussion: Deltares hardware proposal.