

Minutes from CHPS Meeting Thursday May 8, 2008

Attendees:

NCRFC - John Halquist
ABRFC - Billy Olsen, Mike Pierce
CNRFC - Rob Hartman
NWRFC - Harold Opitz, Joe Intermill
Deltares - Karel Heynert
OHD - Pedro Restrepo, Jon Roe, Chris Dietz
OCWWS – Randy Rieman

Pre-reading:

- Email thread on chps_migration list server subject “CAT Hardware Needs”
- Document “NWS CAT Migration Strategy Plan” distributed via the chps_migration list on 5/8/08

1. Migration Tools

Deltares’ proposal for migration tools comprises 2 types:

- Configuration setup (from scratch)

Expected to be used by an individual at RFC, independently of Deltares. Tool will check the structure of the configurations entered, display links, store rating curves. The mechanism will ensure integrity of information (resolve conflicts when multiple people change the same information).

- Automated conversion from NWSRFS to CHPS

Scripts which will automatically convert the majority of operating information from NWSRFS segment definitions, model linkages, model parameter sets, station definitions, etc. to the equivalent files in FEWS. Scripts will not be perfect the first time used. Some manual corrections will be required. After running the scripts, RFCs will be expected to quality control the results.

Deltares recommends we focus the December 2008 activities on getting software installed and working correctly. This activity will be different from the training workshop in January. Harold will update the “NWS CAT Migration Strategy Plan” to reflect accordingly. It is important that the software be checked and ready to go and all data feeds ingesting into CHPS before the migration begins in January. If models not completely finished, then we can always release an update. Deltares will provide acceptance test procedures, to be reviewed by the NWS (including CAT). OHD will provide acceptance test procedures as part of its model software deliverable. In June the CAT will start work on preparing for acceptance testing.

Training in the use of migration tools and configurations will occur in January 2009, possibly with some extended system training. Deltares will travel around the CAT RFCs in January 2009 setting up the live systems. Everything must be in place and working at that time. We will need to agree on a sequence and other details in June, given the risk associated with weather at that time of year. To mitigate risk Deltares might be able to conduct some setup in December 2008 and the site conduct uncomplicated upgrades later.

The CAT would like to have some tools to create configuration files directly from calibration data sets. We don't yet have SAC-HT parameters defined in NWSRFS segment definitions. We won't have a full calibration system in CHPS, but it won't make sense to try and convert calibration data into segment definitions for the sole purpose of converting them to FEWS configuration files. This will not be a difficult task. Requires a simple script to extract files from calibration system and convert them to SHEF. Not sure if RTi did this originally, or Deltares. Deltares will make sure we have a script in place. There should be no need for 13 different scripts, as data at all sites are the same. John Halquist later reported that the files in his Pilot are labeled climatology and are in XML not SHEF.

NCRFC expects to update their calibration files in 2009 so RFCs will need the ability to add new calibration data sets to CHPS later.

Regarding migration requirements, the CAT will also need calibration time series files for ensembles.

2. Upcoming CAT Activities

Can we figure out a way to make best use of CAT's current free time before things get crazy at the end of this year? The CAT previously agreed that early/partial model Acceptance Testing would require more effort than it's worth, so no testing will be done in June as indicated in the Calendar document.

An important activity coming up is to map current steps in the highly RFC-specific forecasting process to an equivalent in the new CHPS and AWIPS II environments. We must make sure nothing gets lost that needs to be retained. Karel will send some sample MS Visio files to Chris, created during Harold and John's visit to Deltares. Chris will distribute in a usable format for the CAT. One approach might be to start fleshing out the details for one RFC, then change/expand it for the others one by one. We should be prepared to present something on this to the HIC conference in July. This activity will also jump-start the discussions for post-processing local applications, as we expect to identify them during this activity. The mapping should also highlight local data feeds – starting with the nature of the data and the reason for its inclusion, and ending with specific data formats and software applications involved in processing the data.

There is still a lot of work to do on the GUIs, in particular the MODs. Joe Intermill will act as the primary focal point for input on the interfaces. Joe will coordinate with Mike Pierce (ABRFC) and Pete Fickenscher (CNRFC). The requirements gathering process (specs) is a

very iterative exercise - you can't have complete specs before development begins. Some discussions will take place at the June workshop. The June workshop is mostly an information exchange and decision-making meeting so Joe, Mike, and Pete won't be present. We could conduct some business via phone, and/or GoTo Meetings. Most of the heavy GUI discussions will occur during the October workshop, when Deltares expects to demonstrate prototypes.

One valuable thing the CAT can do is identify what their respective RFCs will NOT be able to do after December due to the start of migration. Example: any deferred maintenance. CAT RFCs should aim to do those things now to get them out of the way.

3. Hardware

Hardware purchase strategy is to get proposed specs from Deltares, have them reviewed by the CAT, OS&T (Jim Lane), OS&T (Steve Schotz), Raytheon hardware engineers (Omaha), then get Hydro to purchase through its ITSG.

Could be problematic trying to purchase all 4 RFC systems on single purchase order, because the amount may trigger a competitive bid process. Also believe there's a tight deadline for major purchases.

Could each RFC purchase its' own? OHD could then transfer money to them. Yes but increases risk that each RFC will get something slightly different. Perhaps they could use the "e-AWIPS" method currently in use by some regions.

Suggest purchasing something immediately with more computational power than recommended - 2 machines: one client, one server; multi-processor; lots of memory; lots of disk space - but without a failover backup. This would get the basics in place while reducing the amount of money needed from FY08 funds. Must have a guarantee that the backup will be delivered no later than 2009, preferably sooner - don't want to suffer the same fate as the RAX.

Deltares will propose a series of machines that includes full failover. The RFCs can't go into parallel operations with only one system. Three systems are usual: one online/duty, one online/standby, and one offline; the latter is for staged releases and testing. All agreed that there's no point discussing hardware until we've had the opportunity to see Deltares' proposal next week.

4. Other items

Plans for Fldwav migration to HEC-RAS? Seann leading the effort. Fekadu is in HEC-RAS training. Chris will have Seann update the CAT on activities/progress at the June 14 workshop.

Status of Portland TIM notes? Jon has worked with Ronla Henry to prepare them. Draft version now in circulation, following the process agreed between OS&T and Raytheon. Should be finished in 1 or 2 weeks, then available for distribution.

Chris will check “Migration Strategy Plan” timeline against Karel’s timeline to see how well they match up.

Deltares will turn the nws.delft.nl into a Wiki page; then we can place the BOC document, the Software Migration Mapping document, and others there – provides built-in version control. Deltares will host this CHPS project web site for the foreseeable future, possibly indefinitely if the NWS desires.

Old Action items from previous weeks:

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.**

041708-3. Pedro agreed to discuss use of FY08 funds for CHPS hardware with Gary Carter. 5/8/08: Pedro has begun working this. **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. Chris to send travel codes for the June workshop to CAT members. **Closed on 5/8**

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.**

042408-9. Deltares to provide OHD with feedback on TimeSeries ID change in FEWS. **Open.**

New action items this week:

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.**

Next meeting: Thursday 5/15/08. Topic of discussion: Deltares hardware proposal.