<u>Minutes from CHPS Meeting Thursday April 24, 2008</u>

Attendees:

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

Documents distributed prior to this meeting:

- First draft of an untitled document (the "calendar document"), which lists workshops and associated activities
- Version 6a of the Baseline Operational Capability (BOC) document

1. BOC document discussions

Page 1: data flows and pre-processors.

What does it mean to "retain the current structure" of NWSRFS pre-processors? This group needs to re-visit the strategy for migrating pre-processors, as CNRFC would like to eliminate existing ones from BOC. Add to Agenda for next week.

1st bullet, 2nd sub-bullet: what does "To reduce risk" mean? Reduce the risk that operational roll-out is stalled because of problems with the legacy pre-processors versus new pre-processor equivalents. Also reduces the risk for testing.

Pre-processors missing from the list: RRS and NDFD2RFS. Latter has no role in CHPS because it simply "warps" data to the NWSRFS structure. Requirement should be to incorporate grids (generally) into CHPS. Possibly on the horizon is use of GFE for QPF processing. NWRFC is already able to do 10 days using baseline GFE. Conclusion: keep RRS for BOC, but eliminate NDFD2RFS.

Related: where do RFCs want to host data QC? There are many levels to QC, so the answer isn't straightforward. Deltares recommends defining the complete end-to-end QC process, and decide where CHPS fits in, and where AWIPS II fits in. This should be discussed at the CAT meeting next week (add to Agenda).

Page 3: calibration of HEC-RAS.

2nd sub-bullet: change the wording to reflect that calibration of HEC-RAS will remain external to CHPS at first. RFCs will need to generate new parameters for RAS - now a BOC requirement in light of plans to retire FldWav.

Page 4: calibration of models other than HEC-RAS.

1st bullet: will the conversion tools work out of the fcinit files and the calibration files? Define the requirement as both. RFCs won't need to worry about generating new parameters (except for HEC-RAS – see above). When necessary, sites must do calibration the old way. Change wording of this bullet to reflect that calibration of parameters for models other than HEC-RAS will remain external to CHPS for BOC.

Deltares pointed out that calibration tools are scheduled to be available in time for CAT RFCs to go live with CHPS BOC. This means software work on the calibration tools needs to be accomplished during the April-December 2009 timeframe.

Page 4: ensembles.

John provided a brief summary of how the ensembles capability works in the Pilot system at NCRFC. FEWS generates trace plots and probability graphs (although not quite like the ones we're used to), but there's no interface similar to ESPADP to create a wider variety of products.

Is there any FEWS documentation on ensembles? Yes, Karel said he would provide some before the CAT meeting next week, and will also provide a link to the UK Environment Agency offline/test system so the CAT can take a look at how they use ensembles.

Discussions between Karel, Micha, and DJ last week yielded some good information exchange. RFC users clearly want to use ensembles differently than other FEWS users. External ensembles can be handled the same way as we handle external models (wrapped), or can be handled by configuring FEWS.

Page 4: hardware.

Is it acceptable to say BOC will make use of existing AWIPS hardware? No but we don't have anything else to say, because we're not ready to provide full specifications. Deltares will help RFCs define specs; if CHPS can get funding for hardware from AHPS or WR, why would we need to settle for speaking in terms of current AWIPS hardware which we know to be completely inadequate? The CAT believes it will take running CHPS for a while to figure out what's really needed in operations, so the requirement in this BOC document should stay as it currently reads.

Question: can we wrap up this document? Not quite ready yet. There are still too many open topics for discussion; some are expected to be addressed next week in Portland. All group members should bring the BOC document with them to the workshop.

2. Status of OHD software development

Cons_Use, UHG, and SSARRESV are undergoing the 2nd level of testing. Res-Sngl and Lag/K are undergoing the 1st level of testing. SSARROUTE is still in development. Developers are at the point now where they will need some test data sets; they have names of contacts at the RFCs and will request assistance soon. Next up: Tatum, StageFlow, Muskingham, StageRev, TideRev, and others. The adapter being used for all models is a generic adapter, and creation of CHPS software developer instructions are in progress. Joe pointed out that HSEB can't make significant progress until Deltares has modified FEWS to introduce the TimeSeries ID, per the discussions last week.

Issue of configuration files and release strategy was discussed. Deltares expects that OHD will complete testing then hand over models to Deltares, who will develop the configuration files, and package everything up into a release for delivery to the RFCs. What's wrong with releasing models as they become available one by one? Main issue is the amount of effort the RFC must expend in order to set up a test environment especially for the model – it isn't considered worth the time. Second issue is that models on their own are fairly useless without other operations that accompany them in the segment. Exception to this is Res-Sngl, which is more complicated in nature and which the CAT agreed should be released as soon as it becomes available.

How did HSEB arrive at the sequence of model migration? HSEB began with the prioritized list developed earlier via these CAT calls. Beyond that, HSEB cannot open up the subject for discussion because tasking involves resource decisions that must be made directly by HSEB. HSEB might be able to make some adjustments to the sequencing as the project evolves and OHD software developers hone their skills.

As HSEB gets closer to milestones it may realize the deadlines are unattainable. Does Deltares have any spare software developers? Chris is always on the look-out for extra people to help with the software conversion tasks……

3. Status of contract with Delft

Raytheon was not ready in time to meet with OHD this week, as previously promised. Time is running out, as Jon needs to commit the funds in the next couple of weeks. One problem we've suffered from is lack of attention/low priority wrt AWIPS II work. Pedro is using his connections to increase the pressure.

On a separate note, Apex as a company no longer exists. Manuel has sold the company to Terrapin Systems (TerpSys), and is no longer with the company. The Apex contract agreement with Raytheon is to be handed over to TerpSys. There will be further discussions next Tuesday in Portland.

Karel reported that they've had no contact with Raytheon other than a request to sign the non-disclosure agreement (which is now signed). Deltares is waiting for a copy of the CHPS SOO from Raytheon, but meanwhile has an advance copy from OHD. Jon has urged Raytheon to contact Deltares asap. Deltares is disappointed by the slow progress.

There will be a meeting next Tuesday in Portland, to be attended by Raytheon, OHD (Jon, JoeG; Chris won't be there till Weds), and the OS&T COR (Walt Scott). The contract and its urgency will be discussed then.

4. "Calendar document" discussions

Is the June date shown at the top of the first page real? Yes. The week was previously scheduled between OHD and Deltares (so Deltares could reserve time in their busy schedules); CAT members should attend if possible. Karel emphasized the importance of entire group attending because key decisions need to be made at that time. Probably need 2 or 3 days; CAT agreed to aim for 3 days. Meetings will be fairly intense as there is a lot of ground to cover. Chris agreed to send the travel codes to CAT members.
[Chris's note: Deltares typically travels on the preceding Sunday, so Monday June 16 will be a working day for OHD and Deltares, without the CAT. Tuesday June 17, Weds June 18, and most or all of Thursday June 19 will be attended by the CAT. Additional meetings between OHD and Deltares without the CAT will likely occur on the morning of Friday June 20.]

5. Other items

Agenda for next week in Portland – is it ready? Some said they hadn't received the latest copy; Harold will distribute. Need to add an agenda item to discuss what we're ready to release to the other non-CAT RFCs.

Do we need a post-BOC document? Yes. We should find a place to capture items we label as "post-BOC", and even attempt to lay out a target release so we can begin planning ahead of time even if we have to adjust the content and schedules later.

Action items from last week:

041708-1. Rob: create and distribute a new version (v6) of BOC document based on today's meeting. Need to add page numbers. Remove "Phase 1" from document title. Fill in words on page 4 to reflect outcome of today's discussions. Show that pre-processors are now back in CHPS vice AWIPS II. **Closed; version 6a distributed by Harold on 4/23/08.**
041708-2. Deltares will send an outline of expected releases and their content to the group. **Closed; "calendar document" distributed by Chris on 4/24/08.**
041708-3. OHD will add Frozen Ground to the list of legacy NWSFS software to migrate. **Closed; assigned to OHD software development team.**
041708-4. 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 still a little confused about this one – will keep open until resolved. Considering adding Zhengtao Cui to the development team so he can adapt HL-RDHM; but HSEB not quite ready to train him.**

041708-5. Deltares said they will update the CAT on Ensembles at next week's (4/24) CAT call. **Closed on 4/24/08**.

041708-6. OHD agreed to find out if Jim Lane's PECP could be delayed longer than just a few days. **Closed. PECP must go ahead without further delay. Randy's estimates to Jim Lane were as high as we could justify, and may raise some Piercy eyebrows!!**

041708-7. Karel will set in motion discussions with Deltares hardware engineers concerning specs for CHPS, earlier than originally scheduled. **Open; needs status update from Karel**

041708-8. Pedro agreed to discuss use of FY08 funds for CHPS hardware with Gary Carter. **Open; needs status update from Pedro**

New action items this week:

042408-1. Harold: update and distribute a new version (v7) of BOC document based on today's meeting. **Closed on 4/24.**

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 Agence 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. All: read and review 2 documents before the CAT meeting next week. They are: the "calendar" document (listing workshops and activities); and the Software Migration Mapping document. **Open.**

042408-5. Harold to distribute a copy of the Agenda for next week's meeting. **Closed on 4/24.**

042408-6. Harold to update the Agenda based on today's call. **Open.**

042408-7. Chris to send travel codes for the June workshop to CAT members. **Open.**

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.**

Next meeting: The CAT will be at NWRFC on Thursday May 1 and Friday May 2; Deltares will not be participating in the workshop, but will be available for conference calls.