

## Minutes from CHPS Meeting Thursday July 1, 2010

### Attendees:

ABRFC – Billy Olsen, Eric Jones, Mike Pierce  
CNRFC – Rob Hartman, Pete Fickenscher  
NERFC – Rob Shedd, Alison MacNeil  
NWRFC – Harold Opitz, Joe Intermill  
NOHRSC – (absent)  
Deltares – Edwin Welles  
OCWWS HSD – Dave Riley  
OHD – Chris Dietz

### Pre-reading:

- Support Log distributed via chps\_ops on June 30, 2010

### 1. Health check on Support Log (major issues, show stoppers)

**NERFC:** 1. PeterG was at NERFC yesterday for non-CHPS reasons; he now has a better understanding of the sacbasef mod problem and will relay the details to Andre to isolate the underlying issue. 2. Alison has just sent an email re. old switchts mods which should be expired but which still hang around and cause errors even though they are no longer active. The workaround is to manually delete the mod. Edwin is expecting a development delivery today from Andre – if there's a software bug involved in this issue it might be possible to delay the build to get a solution in place.

Brief discussion: Is the requirement for FEWS to delete the mods when they expire or to have them made ineffective and then delete them after some configurable amount of time? Edwin said the office should be able to determine which ones are automatically deleted – i.e. it's configurable. CNRFC wants some mods to get removed but others may need to be kept for a year; CN prefers that the default be manual deletion.

ABRFC: they've now completed the installation (June release) and have noted some problems:

- The slow down is back again. The system freezes for about 12-14 seconds at times. Doesn't seem to be every user, not at the same processing point, not sure if it's certain workstations or not. At the very end of this meeting ABRFC reported that it seems to be whenever the System Monitor is brought up. CN/Pete will verify if this is also true at his office – if not, he will get more details to Edwin.
- RRI and RO changes aren't working properly in the mods window. For RRI: increases can be made on the graph but decreases can't be made using the graph but will show up in the table anyway. For RO: no changes can be made on the graph.
- The icons issue is still there. When we send the forecast back we lose the green icons on the segments and they go back to white. Edwin believed that was the agreement. ABRFC will find the email containing a summary of the requirements and will verify whether or not the software is working in accordance with those requirements.
- QINE on ensemble runs: we can change the different QINE ensemble members but we can only change them both at the same time, not independently. This could be a miscommunication regarding the requirement. Edwin will dig up the original agreement and will see what it says and whether there's a discrepancy.

CNRFC: CN reported an initial system slow-down after the June release was installed but it “seems better today”. Also the thresholds are missing; however an email thread on chps\_ops noted that this is not included in the June release but will be provided in an upcoming patch.

On the slow-down at CNRFC: it seems to occur in the OC with particular graphics refreshing. Running the model seems to be ok but the screen rendering is very slow. NE has also seen this slowness. If related to different graphics configurations then the problem will be manifested differently at different offices. Andre is currently making some changes to FEWS to address the sudden logout and slow graphics rendering.

NW noted they had received an upgraded Java as a test to see if it solved the sudden logout problem and the JBoss crashes – perhaps this might help the slow graphics rendering?

NW also upgraded their memory to 1536MB and hasn't seen the memory errors since then; they can no longer run with only 512 memory. NE has only seen the memory error once since the June build; they dealt with it by logging out and back in again – they have not needed to increase memory.

CNRFC has installed the OHD patch and the espadp input generator seems to be fixed. They were able to see the traces but the dates were problematic so there's still some work to do.

NWRFC: is also installing the OHD patch and is getting some help from PeteF with setting up espadp. They will be testing the other fixes today.

On the Support Log: DaveR reported that some log items can probably be closed out but he needs the RFCs to verify that they are fixed. Dave offered to extract lists of items for individual RFCs, but they said they can just as easily go through the log.

CNRFC: what is the status of ResSim? Edwin has received a version which reportedly addresses Warm (“Hot”) Starts; he will test it next week. If everything looks good he will pass it over to Micha/Gena to see if anything in the adapter needs to be changed and also verify that the warm start really does work as required. Chris reported that OHD now has a contract in place with RMA directly (HEC/ResSim contractor) which should facilitate communication between Deltares-OHD-RMA. *[Author's note: until now OHD has relied on an MOU between OHD and HEC, which has led to poor/delayed/missing communication between the 2 sets of contractors.]*

Action: CNRFC to determine circumstances under which system slow-downs occur; they will verify whether or not it occurs while the System Monitor is active.

Action: ABRFC will locate the email containing a summary of the icon requirements and will verify whether or not the software is working in accordance with those requirements.

Action: Edwin will dig up the original agreement for TS change mods on QINE ensemble members and will determine if there was a misunderstanding of the requirement.

Action: each CAT RFC to go through the Support Log and test items which originated at their offices and which are claimed by Deltares/OHD to be fixed now; RFCs will announce whether or not the issues can be closed out or if they are still lingering.

## 2. Discussion: how to guarantee best quality/testing for the September BOC-1 Build

NERFC suggested that the SAT procedures aren't adequate – software which pass the SAT subsequently doesn't work afterwards. The test procedures need to be improved.

NWRFC would like to see performance tests included, and establish a baseline.

The problem seems to be that even though Deltares-NL has RFC configurations on their systems – and also access to those on the NHOR - the “real” operational environment is always different. Deltares has similar workstations in Delft, but they are not identical. Chris suggests the variable is AWIPS itself – can we set up non-AWIPS workstations to see what happens? If AWIPS is the impedance factor we can't (and shouldn't have to) control that variable. NW didn't believe that was worth trying because all it does is recreate a pristine - and unrealistic - environment.

Edwin believes we need to extend the test period at the RFCs. We currently have 3 days SAT in Silver Spring (OHD), approx 2 weeks with Deltares-USA tests, then 3 days Beta testing at the RFCs. Suggests:

- Longer Beta testing at RFCs
- Improved logging information so Deltares can review to see what's really going on, and problems can be analysed.

Regarding sacbasef Edwin will get Andre to say what logging info he needs. Regarding performance, PeteF said it seems to go down when the local data store on the OC grows. CN was generating 6-8 graphics/extra plots for a single forecast group but had stopped doing it when the performance deteriorated. Yesterday PeteF uploaded the CNRFC local data store to Deltares FTP site.

Chris floated a suggestion that we have Deltares come over here to look at each RFC's operational system; Edwin will look into the possibility – who would be appropriate, who's available, and also the negative impact (reduced work on the BOC-1 Build). The goal would be to get the system developers to see how their system works in a realistic environment, which is never the same as the NHOR or Deltares-NL. NWRFC requested that the individual also take the time to do some system tuning. Edwin pointed out that the trip would need to be structured in a way to maximize the visit – i.e., it should not be treated as an opportunity for RFCs to simply “pick brains” in an ad-hoc manner.

CNRFC expressed nervousness that we are planning the BOC-1 Build around the first week of October just as they are going operational; the new build will destabilize the system again. Deltares (and OHD) must have their developers primed to make quick patches as needed.

To minimize risk Edwin reminded everyone that RFCs must resist adding functionality to the build and focus on broken things plus ways to extend the testing.

**Action: Edwin to assess the feasibility of bringing someone from Deltares-NL to the CAT RFCs for purposes of analysing/tuning CHPS operational environments.**

### 3. Display Template Depot

Some suggestions:

- Deltares/CHPS wiki
- Website (e.g. RFC support page, CHPS page, or a new page)
- Deltares FTP site

Everyone agreed simple is best. It must be easy for RFCs to upload. The group agreed to use the Deltares FTP site as everyone's familiar with that location and the process. At some later point we can gather everything up and make a more appealing interface on the web.

Deltares will create a directory structure as follows:

- 1<sup>st</sup> level = DEPOT
- 2<sup>nd</sup> level = xxRFC (one for each of the 13 RFCs)
- 3<sup>rd</sup> level = Spatial, Timeseries

Groundrules:

One file containing the xml, another file containing the image (e.g., .png, .gif), an optional readme file

.xml and .png files must have the same "root" name

The "root" name should be as descriptive as possible but can be whatever the RFC chooses. Examples: reservoirs, sacStates, forcings, multizone, etc.

The goal is to share displays; however there is no reason why individual RFCs can't do similar things in (13) different ways.

**Action: Edwin to make sure the Display Template Depot directories are created on the Deltares FTP site.**

#### 4. Other items

- i. NERFC had a group from New Brunswick visiting in the past 2 days. NE spent a fair amount of time providing a status update on their CHPS implementation. PeterG is also there for this visit. NB is preparing to get set up with an instantiation of FEWS. NB will receive some training from Deltares but NE expects to provide some additional support.
- ii. Status of Australia-FEWS? Still no decision.

**Action: none.**

**Next meeting:** Thursday July 8, 2010.