

Minutes from CHPS Meeting Thursday January 15, 2009

Attendees:

ABRFC – Billy Olsen, Mike Pierce, Jeff McMurphy
CNRFC – Rob Hartman, Scott Staggs
NERFC – Rob Shedd, Ed Capone, Ron Horwood
NWRFC – Harold Opitz, Joe Intermill
NOHRSC – John Halquist
Deltares – Karel Heynert, Mattijs Lemans, Willem van Verseveld
OCWWS – Randy Rieman (at ABRFC)
OHD – Jon Roe, Joe Gofus, Chris Dietz

Pre-reading:

- Agenda for Preparation Workshop #3 distributed to Migration list on 1/14/09

1. Deltares status update

- Time series operations – progress has generally been good. Causes for 2 of the 3 failed tests have been resolved; still working on stagerev. The outstanding documentation tests have still not been conducted (the documentation doesn't exist), but they are less important.
- OHD modeling operations – still a couple of problems with sarrsv (qine) and resnsl (data not being saved in DB correctly; will require a db bug fix). Sacsma: a number of issues have been resolved but Deltares is still analyzing some differences. Rsnwelev has been fixed. Not yet started work on snow17 and unithg. The outstanding documentation tests are also not done.
- Data ingest and pre-processing – Andre is working on resolving issues with rrs.
- End-2-end forecasting – data set provided early this week by OHD but little progress has been made so far. OHD adapter didn't run properly in Deltares environment, probably an issue on Deltares side. Hope to have a fix by early next week.
- Migration scripts – Can now migrate the final missing 5 operations, so CNRFC is now part of the test configuration (it was missing from Dec testing). Migration scripts are now considered complete, but some bugs and fine tuning can be expected. Level 4 testing – as soon as Deltares has re-executed these they'll email the results.
- Software development (configuration support tools, adding features necessary for esp forecasting) – should be complete by the end of next week. Will be tight.
- Master Controller changes (improvements to management of live system, such as easier collection of log files) – underway. Will be uploaded to live systems at CAT sites after migration training.
- HEC-RAS adapter – library provided by HEC doesn't write all the files needed by the FEWS GUI, so troubleshooting is difficult. Also we don't have CHPS MODs interface yet so we can't make basic time series changes either. However the basic adapter body is working fine. Deltares will continue to work closely with HEC. Deltares still plans to conduct adapter testing Jan 29-30; NERFC needs to know by Thurs Jan 22 if those plans change.
- Karel is working on a memo to document their current status.

Conclusion: still a fair amount of work to do with a tight deadline, but Deltares feels the training should go ahead as planned. Training will be useful even if all tools are not 100% perfect. However it's probably still too soon for NWS to make a go/no-go decision; we need to make sure we give Deltares the time they need. It's unlikely if we decide to delay the training that the NWSTC will be available – we'll probably need to find an alternative location.

Are there any thresholds that we must meet in order to make a go/no-go decision? All (most) functional tests should pass or should be expected to pass soon. The migration tools and configuration tools must be 100% ready, but some other features (such as esp forecasting) that still need some effort don't have to be 100% ready.

The user interface has made little progress and is behind schedule. Deltares elected to focus on the higher priority migration tools at the expense of the GUI. We'll be able to discuss this more at the workshop.

How much migration can RFCs expect to do without the MODs GUIs? RFCs don't want to get part-way through migration then have to re-do all their hard work. Deltares: at the beginning, the RFCs will be able to view data, fire off forecasts, and do some limited manual interaction with the existing FEWS GUIs. The initial focus will be making sure the data feeds all work correctly, that the segments are set up accurately and later (~Summer, perhaps earlier) beginning to check that the new segments are all working properly. RFCs will not want to jump to parallel operations right at the start. Then beginning around the end of March, new interactive forecasting GUIs will come along and begin to provide more and more capabilities. When parallel operations start, RFCs will need to synchronize the states again. By then the GUIs will be fully functional. It will be too hard to run parallel ops for too long. NWRFC intends to migrate a few complex segments on their own, and check that the components are really working. Karel noted that it will be impossible to get all segments working 100% the first time. The idea is to select a variety of basin types across the domain to see how they work.

Next formal acceptance testing? Not until after the next workshop. Karel and Chris recently discussed a proposal to conduct one week of software acceptance testing following each quarterly workshop. Since the migration training (and subsequent software update) will occur before the next "formal" software acceptance testing, the RFCs must begin the migration process with a software release that has not been inspected/accepted by OHD.

NWS will continue to monitor Deltares progress – there will be another progress report at the weekly conference call next week.

Action: none.

2. Agenda for Prep Workshop #3 discussion

Announcement: all workshop sessions will be in room 8246.

A couple of things will occur just before the workshop: 1. Deltares (Peter) will travel to Chanhassen on Thurs Jan 22 to discuss XML and archive database with the CAT (John

Halquist). 2. Peter will then meet with OHD (Chris) on Friday Jan 23 to discuss some planning topics, and to recap discussions from the days before. On Monday Jan 26 Karel and Peter will meet with OHD to finalize some of the presentations for the workshop based on those discussions.

This workshop will focus on topics beyond CAT migration training; hence inclusion of XEFS and the approach for follow-on RFCs.

The forecaster interface (MODs GUIs) have not progressed since the last series of discussions, so there won't be any new demos. The development work is behind schedule (approx 2 months). Starting now Deltares will resume work on the GUIs; RFCs will start to see intensive communication pick back up in a similar fashion as before.

2 items for possible inclusion on the agenda:

- RFC backup – this has been discussed by the CAT, but never in any great depth. It is an operational requirement. Some RFCs have a need to use laptops. There is at least one related OSIP project (Thin Client); but the approach should not be to develop requirements in isolation/as a separate activity – we should examine possible functionality within FEWS to see how it might provide part/all of a solution. As Chris has pointed out before, we can consider CHPS to be a prototyping platform for many things including RFC backup. Does this topic (RFC backup) appear on the national HIC agenda? Harold will check.
- Product generation – this appears on the agenda as “Data offering” on Wednesday.

Jon asked if the forcings team session could be pushed back, as MarkG will be gone from the office Monday and Tuesday. Karel has already moved it from Tuesday to Wednesday then from 8:00 am to 9:00 am. Alternative is to move it to the afternoon; however we shouldn't need an entire 3 hour session – 2 hours at most. Conclusion: the forcings team session will be moved to 10:00 am on Wednesday.

This segued into a discussion on the status of the forcing team's activities. There has been a lot of good discussion, but NWRFC is concerned when they can begin to test MPE output. At the moment they can't run MPE at all – there are still issues with the QC portion. Paul is working closely with Don to get these problems addressed. Testing last week resulted in some work for Mark's team.

We still need to define the CHPS interface once and for all. Deltares would like to make sure that the NWS understands and can guarantee how data will be fed into CHPS. We must define current data feeds vs. future data feeds. Harold pointed out that RFCs should be free to choose whichever grid-generation method they prefer. MarkG has already summarized existing/near-term preferred methods; during the workshop he will propose how RFCs can move to the future desired grid format/projection/resolutions in the long term. For example, OHD would like to see a merger of MPE and GFE; in order to make that happen we need to know whether that fits in with the RFC vision so we can strategize now.

Action: Harold to check whether RFC service backup is an item on the national HIC agenda in February.

3. OSIP 07-054 coming into view

This is the RFC Archive Database technology refresh project. This OSIP project does not address CHPS needs. Some nuggets of information are useful but the project doesn't address the goals for CHPS at all. The solution has to (eg) be a repository to meet the needs of calibration for many years to come. The purpose of an OSIP project is to provide OS&T a justification for hardware purchases. But the target is FY2012; by then whatever is defined now will be way out of date. Can we stop the project?

We can use CHPS as a prototyping platform. When Deltares comes up with a suggested design we could get something out to the field by purchasing through CHPS. We do need to get an entry for CHPS and all its hardware into PPBES – the deadline for input in time for FY2012 is soon (April 2009). OHD has also done a good job of getting OS&T fired up via the exchanges between Gary Carter and Don Berchoff; so we can't afford to drop the ball.

The RFC survey done for this OSIP project is very focused on current thinking/operations, not where CHPS is headed. Does the “form-fit-function (FFF)” nature of the project constrain the requirements? Actually the IWT is trying to build a business case against FFF to get a true incremental improvement. Problem is the hardware specifications being generated for the business case are created in a vacuum. We have avoided engaging the project because we weren't ready and we didn't have the capacity to deal with it. Could we at least stall the project?

Certainly CHPS must take the lead in defining future requirements, perhaps using some of the OSIP data as input. (It's also somewhat inappropriate that the OSIP IWT lead at this point is a field person.) We should discuss this item at the workshop to come up with a strategy. OHD should also meet with OS&T (Tim Hopkins?) to discuss what to do about the OSIP project. Perhaps we could get OS&T to attend a session at this CHPS preparation workshop, rather than set up a separate meeting? Jon and Chris will look into that.

Action: Chris and Jon to set up a meeting with OS&T to discuss OSIP 07-054, perhaps during the prep workshop.

4. Other items

A brief description of the DWOPER-blend topic that was removed from today's agenda: Seann Reed has figured out the logic behind some “blend” subroutines currently being exercised at NWRFC as part of their DWOPER operation. Harold summarized what it does; Karel requested that Harold send more information to Deltares (Deltares is considering whether they need to develop something). Harold agreed to locate documentation or provide his own write-up. Pedro and Seann will also meet next week to discuss this topic with Chris and JoeG.

RandyR and RobH will schedule (offline) a FEWS software installation for CNRFC. Randy will forward installation documentation to JohnH when it's complete (estimate 1/23/09).

Action: Harold to locate documentation or provide a write-up for the "DWOPER-blend" routines.

Action: RandyR/RobH to let Chris know a date for FEWS software installation at CNRFC

Action: RandyR to send installation instructions to JohnH

Note: Action items from this and all previous meetings are contained in the "ActionItems" document maintained and distributed by Chris Dietz, OHD.

Next meeting: Thursday 1/22/09 at 11:00 am EST