

Minutes from CHPS Meeting Thursday October 30, 2008

Attendees:

ABRFC –Mike Pierce, Jeff McMurphy
CNRFC – Rob Hartman, Scott Staggs
NERFC –Ron Horwood, Tom Econopouly, Ed Capone
NWRFC – Harold Opitz, Joe Intermill
NOHRSC – John Halquist
Deltares – Karel Heynert
OCWWS – Mary Mullusky, Randy Rieman
OHD – Pedro Restrepo, Jon Roe, Chris Dietz, Joe Gofus, Mark Glaudemans

Pre-reading:

- Recent email thread, subject “...Questions about Software Acceptance Testing”
- Recent email thread, subject “xml editor for January training”

1. Software Acceptance Testing Dec 15-17 at OHD

It would be useful but not essential to have forecasters present for the software acceptance testing. The primary purpose of the trip is for software acceptance. The focus is NOT on user acceptance testing.

Deltares will use automated scripts which will test an entire range of possibilities for the model runs. There will be a good deal of watching numbers scroll across the screen – intensive and vey boring.

It is not considered a good idea to combine the software acceptance testing with the activities during the week of training (Jan 5-9).

The suggestion to conduct a demo/review of the latest interactive forecaster GUI is purely opportunistic and should not drive the arrangements for the visit. Deltares will begin a series of regular internet sessions to iteratively define and demonstrate the GUI once development is a little further along.

It might be possible to test the migration tools during software acceptance testing, but it makes better sense to look closely at them during training in January.

The HEC-RAS adapter will be included in the software to be tested, but not the HEC-RAS GUI.

Ways we will keep the scope and costs down for the Hydro budget:

- Limit Ed Capone’s attendance for HEC-RAS to one day (to be identified between OHD and Deltares next week)

- Limit number of field participants to 2: NWRFC/Joe Intermill, and NERFC/Ron Horwood. ABRFC and CNRFC both agreed to let NWRFC/Joe Intermill to represent their interests.

Chris suggested we might submit the test procedures for review to the migration list.

Action: none

2. January Training Class

XML editor – are we agreed that CATs should bring existing license keys to the training in January, and download a trial version for the remaining workstations? Or does it make sense to download trial versions on all workstations? Some things to consider:

- How many “seats” do we need for the training? We said 2 people per workstation, so the total is 8 or 9.
- How many “seats” will RFCs need beyond the training (i.e., at the office)? CNRFC will need at least 3.
- Will the trial edition be a ‘full feature’ version? (must be able to at least save your work). Unknown.
- According to an email sent on Oct 23, oXygen v10 is now available – should we consider that rather than v9? There’s a cost associated with the upgrade. Does it matter if some people have v9, some v10? No it shouldn’t.
- Is emacs a viable alternative? emacs is only easy to use for those who are already familiar with it. While very capable, it isn’t clear if emacs specifically has xml editing capabilities. It does NOT provide a “tree view” of XML files. Doubt it performs schema checking. Not a viable option.

Conclusion: before the New Year CATs will purchase whatever licenses they will need to begin the Migration. CNRFC might purchase an oXygen upgrade. RFC attendees will bring all available license keys with them to the training. Chris will notify Dave Cokely that no licenses are required for the NWSTC.

Passport info for Jaap and Mattijs – originally Karel sent directly to NERFC; however OHD needs the information centrally so we don’t have to keep asking for the same information multiple times. Karel will forward the info to Chris immediately.

Travel estimates – Chris reminded the group that anyone expecting to charge their travel to the Hydro budget must submit their estimates to Chris as soon as possible. This is to secure authorization from Gary for subsequent payment. Hydro will support 2 people per CAT site.

Action: Chris to notify NWSTC/Dave Cokely that no oXygen licenses will be needed for the January training (RFCs to bring their own).

Action: Karel to forward to Chris passport details for Mattijs and Jaap.

Action: CATs to submit to Chris their Migration Training travel estimates (due asap).

3. Preparation Workshop #3

Confirm that location will be Salt Lake City.

HIC meeting will most likely be Tues 27 and Weds 28; so the CHPS Preparation Workshop can follow, on Thurs 29 and Fri 30 (travel Fri night or Sat am).

Action: Chris to update/republish the list of all CHPS workshops with the new information.

4. New OHD project – gridded inputs for CHPS

Mark Glaudemans reviewed his understanding of the goal of this new project, and asked a few preliminary questions. Background information shared with Mark includes Rob Hartman’s write-up “Gridded Inputs for the Baseline Implementation of CHPS”, along with an extracted from last week’s CAT call minutes on the topic of MPE changes needed for CHPS.

Mark and Paul Tilles already visited NERFC in September to address what it will take to get MPE fully operational at NERFC, now that NE is a CAT site. Mark has also been working with CBRFC and WGRFC (non-CAT sites) to define some other MPE enhancements; however Mark may need to re-evaluate these ‘informal’ commitments in light of this higher priority CHPS task.

Mark stated the need for assistance from the CAT sites regarding requirements for temperature and precipitation pre-processing; not sure yet how to tackle evapotranspiration (ET). We will need to form a sub-team ASAP, with commitment from the CATs to provide the necessary support.

Precipitation pre-processing is in the best shape (P3, or DQC, or MPE/DQC). For temperature we know we want to put the MAT pre-processor out of business. Not sure yet how to address ET. Local applications could be part of the solution; we would need RFCs to take the time to explain these applications, where they exist.

NWRFC stressed that the highest priority for CHPS is to get the proper grids output from MPE. NW is working with Mark to shake out some remaining bugs in DQC, but these can be worked out fairly easily. We need to focus on the hourly approach to temp, precip, and ET. DQC doesn’t do instantaneous temp – it would be a non-trivial task to make that enhancement.

NOHRSC currently retrieves “observed” temperatures from the RUC model fields, necessary to run RDHM with SNOW-17 in support of Gridded Flash Flood Guidance. They have 1Km grids for the CONUS, and current plans are to provide RFC clipped grids in grib(1) to the RFCs.

NOHRSC has also recently begun moving into forecast periods, with some success. Gridded Forecast Temperatures are also available directly from the models or from the NDFD.

For forecast data RFCs mainly use NMAP, GFE, or Mountain Mapper (in the west). Mary noted a survey she conducted for NPVU regarding application usage; she will share the results with Mark. NWRFC is currently investigating whether GFE can generate hourly precip and temp forecast values. OHD has no in-house tools that produce forecast data.

For CHPS we should focus on getting the observations in the right format, rather than worrying about forecast forcings. We can always do transformations on forecast data.

With regard to projection... we want to do away with HRAP. GSD/Tom LeFebvre is very fluent in map projections; recommend Mark consults with Tom. Perhaps a stop-gap solution is to use GFE then transform the outputs into grib(1). Ultimately we'll need map projection and grid spacing compatibility between GFE and MPE.

Nominations for the sub-team to provide requirements to Mark: Harold and Don for NWRFC; Ron Horwood and Jeff Ouellet for NERFC; ABRFC and CNRFC will provide names later. Mary will represent OCWWS HSD on the team. Will the CAT RFCs really represent all RFCs? While the goal is to represent national requirements, there may be some gaps; these will be addressed during analysis for the follow-on RFCs. The CAT will aim to minimize those gaps.

Mark foresees 4 people working on this task: himself, Paul Tilles, Jingtao Deng, and Dave Miller.

Mark plans to update his FY09 AHPS proposal to the Forcings team ("QPE and QTE for CHPS"). Chris believes this should not be processed like a traditional proposal submitted to the annual AHPS budget process; this must be presented to the hydrology program as cost estimates for a mandatory project.

Karel proposed that questions about the internal workings of FEWS could best be addressed via the standing Tuesday conference call between Lee Cajina and Erik deRooij. There may be different solutions to meet the requirements; ultimately the principal decision rests with the NWS, based on possible technical solutions.

Action: Mary to forward results of NPVU survey to MarkG.

Action: ABRFC to provide name for sub-team to work with MarkG on gridded inputs for CHPS

Action: CNRFC to provide name for sub-team to work with MarkG on gridded inputs for CHPS

5. Other

ResSim

A new ResSim version is expected at CNRFC in the next week or two; it includes the hot start, etc. HEC has delivered the new version to the FCO; currently undergoing testing. OHD now owns/maintains the related NWSRFS operation 66 software, originally written by Apex (which no longer exists).

ResSim is now operational for CNRFC, so we must not break anything when they upgrade. CNRFC concluded they can't move to a FEWS-only interface yet. We must demonstrate that the NWSRFS components still work (and/or make the necessary changes). Kuang will need to be re-deployed; he has leave plans coming up. OHD will discuss further with Micha and Andre next week.

Deltares suggested they pick up the ResSim adapter as part of the HEC-RAS project; the two adapters are not the same. There are some left-over funds on HEC-RAS which could be used to cover these costs. Genna (Donchyts) will be at HEC in December for the ModFlow-RAS coupling; perhaps we could take advantage of that trip to run some tests?

Starting January, CNRFC plans to migrate the Yuba-Feather forecast group which includes ResSim. Once working, this will relieve CNRFC of their requirement to use NWSRFS as the primary driver of the ResSim engine.

Grids to Mean Areal

NWRFC would like a demonstration of the process by which FEWS creates mean areals from grids. Deltares agreed they could take some sample files from NWRFC, set up a configuration, and demonstrate the process during the Migration workshop. Deltares already has files from NWRFC. However Micha said the shape files must include discontinuity information in order for FEWS to work correctly. JoeI said he will put together a package for Deltares and coordinate with Micha and Mattijs.

Harry Baayen (the managing director of Deltares) will be visiting the NWS on 20-21 November. He will be accompanied by Toon Segeren, the head of Inland Water Systems. Pedro requested that Karel forward passport information on Harry ASAP for security clearance.

Action: During Deltares visit to Silver Spring Nov 3-7, OHD to discuss a strategy for testing the new ResSim version. Kuang's specific tasking will result from these meetings.

Action: Karel to address adding the ResSim adapter to the HEC-RAS task.

Action: JoeI to send shape files containing discontinuity data to Micha and Mattijs

Action: Karel to forward passport information on Harry Baayen to Pedro ASAP

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 11/6/08.