<u>Minutes from CHPS Meeting Thursday September 18, 2008</u>

Attendees:

ABRFC – Billy Olsen, Mike Pierce, Jeff McMurphy
CNRFC – Rob Hartman
NERFC – Rob Shedd, Tom Econopouly, Ron Horwood
NWRFC – Harold Opitz, Joe Intermill
NOHRSC –
Deltares – Karel Heynert
OCWWS –
OHD – Jon Roe, Chris Dietz, Joe Gofus

Pre-reading:

- None

1. Getting data flowing at all 4 RFCs

<u>IHFS Database output</u>
For the Pilot, most CAT RFCs ran an application called db_exporter ("Danny's program") to read data from the IHFS database and submit for ingest into FEWS. Instead of using Danny's program for the operational CHPS, OHD has created a new version of ofsde (which already reads the IHFS database) referred to as "ofsde-chps"; this new version generates two fs5files instead of the existing single file – the second file differs from the first in that it includes type and source codes. Both files are written to the same directory; the CHPS file is identified by the extension ".chps".

NWRFC is testing the new ofsde-chps; they report that the program is working well with no negative performance impact. JoeG agreed to coordinate with RandyR to get the ofsde-chps program out to the remaining 3 CAT RFCs for installation by the end of this week.

Deltares needs ofsde-chps output from all CAT RFCs in order to conduct testing. Deltares only needs some of the data, not a complete data feed. NWRFC is already FTP'ing data. Such an arrangement will remain in place for the foreseeable future, until an operational support strategy is worked out. Deltares sees no need for the CAT RFCs to synchronize with the Deltares MC because the NWS will provide 1st tier self-support. NWRFC requested that we leave operational support options open, and don't commit yet to eliminating Deltares for first tier support. We agreed to discuss the Deltares support topic at the workshop.

<u>GRIB files from MPE</u>
This requirement remains valid for operational CHPS. Some CAT RFCs will generate and export these files into FEWS. Copies will additionally be placed in:
- an FTP offsite transfer directory for shipment to Deltares and elsewhere (such as NHDR or NHOR); and

o an archive directory.

Supplemental SHEF products
NWRFC is the only CAT site which uses this option; they generate MAP, MAT, FMAP, FMAT, and some other forecasts in SHEF. This data can be used as a starting point upstream so the entire forecast group doesn't have to be configured. It also provides a basis for comparison between NWSRFS and FEWS. This requirement remains valid during all RFC transitions to CHPS, but eventually the requirement will go away. Copies will additionally be placed in:
o an FTP offsite transfer directory for shipment to Deltares and elsewhere (such as NHDR or NHOR); and
o an archive directory.

Standard configuration
OHD and NWRFC recently came to an agreement on directory structure and naming conventions for CHPS data files, to be adopted by all. NWRFC further requested that we drop the individual rfc subdirectory, because it's superfluous. JoeG and JoeI are collaborating on a draft document.

OHD prefers to not expose the term "fews" in directory path names; we should try to use "chps" wherever possible. Deltares has no particular preference as it's all configurable anyway. We must standardize now - OHD doesn't want 13 RFCs defining 13 different directory structures. Since we're already using /awips/chps for the operational CHPS home directory, the group was content to use "chps" rather than "fews".

There will be 3 types of data each with 3 target destinations, details for which are specified in the draft configuration document:

o FEWS ingest directory
  • Ofsde output
  • MPE files
  • Supplemental SHEF products
o FTP offsite transfer directory
  • Ofsde output
  • MPE files
  • Supplemental SHEF products
o Archive directory
  • Ofsde output
  • MPE files
  • Supplemental SHEF products

Populating the standard directories
o OHD is developing a new application akin to the existing batchpst (called "chpspst") which forwards ofsde-chps output to the 3 ofsde output locations listed above. The timing of the chpspst run doesn't have to be synchronized with ofsde-chps runs. Per agreement with the group, the chpspst application will be run-able via cron, but

NWRFC expects to execute it as a daemon. It will not be added into the existing run_ofsde script. OHD won't touch the AWIPS baseline crontab files; they will leave activation to individual RFCs.

In the short term the chpspst script will use .Apps_defaults tokens to acquire the output directory locations; consequently the NWS should advertise that the value for the .Apps_defaults token must match the FEWS data import configuration file entry, otherwise data ingest will break. Longer term we'll use a FEWS-like configuration file entry, to be more in line with the FEWS paradigm. OHD is working on getting a simple version of chpspst out to NWRFC for testing next Tuesday 9/23, then out to the other CAT RFCs a day or two later. Will OHD provide installation and activation instructions to the RFCs? Yes. Is there anything the RFCs can do immediately? Yes – set up the directory structure, and set up the SHEF flow to the proper directory. JoeG agreed to send the draft standard configuration document to the list; everyone should be aware that some details could change.

o If they want to make use of them, RFCs will be responsible for populating the three MPE data directories as well as the three supplemental SHEF product directories.

Emptying the standard directories
o OHD is developing a script which will transfer files from the "FTP offsite transfer directory" to Deltares and elsewhere, and then delete the files. This script will also be run-able via cron, but again OHD won't touch any AWIPS baseline crontab files; they will leave activation to individual RFCs.

o FEWS software monitors the "FEWS ingest directory" and processes then removes all files.

o RFCs must monitor, process, and clean out their own "Archive directory".

Current status of test data for Deltares
ABRFC and NERFC are delivering MPE files (GRIB) to Deltares.
ABRFC, NERFC, and NWRFC have been sending output from their local IHFS database to Deltares. At AB and NE this is from Danny's program; for NW this is from ofsde-chps.
NWRFC has also been sending supplemental SHEF products to Deltares.
Karel will confirm which data Deltares is currently receiving from which RFCs.

As an aside, on the subject of hardware purchase Jon reiterated that this hardware suite is for evaluation purposes only, and is to help alleviate the extra processing load at RFCs during CHPS/NWSRFS parallel operations. The goal is to use the hardware to validate and document technical requirements for OS&T/SEC to engineer into the AWIPS hardware architecture. The idea is not that all RFCs will get special non-AWIPS hardware dedicated to CHPS.

Action: Karel to add the topic of operational support from Deltares to the workshop agenda.

Action: JoeG to coordinate with RandyR to get the ofsde-chps program out to the remaining 3 CAT RFCs for installation by the end of this week.
Action: capture the action to advertise that the value for the .Apps_defaults token must match the FEWS data import configuration file entry, otherwise data ingest will break.
Action: JoeG to get an early version of chpspst to NWRFC for testing on Tuesday 9/23, then out to the other CAT RFCs a day or two later.
Action: JoeG to send the draft standard configuration document to the chps migration list.
Action: Karel to confirm which data Deltares is currently receiving from which RFCs.

2. Workshop #2 w/c Sept 29

Participants confirmed that the workshop will be held Tues 9/30 – Thurs 10/2. On Monday Karel, Micha, and Peter will do some preparatory work for the workshop; RandyR will travel on Sunday so he can check out NERFC's setup and participate in Monday's activities. After the workshop Karel and Peter will join JohnH in Minneapolis on Friday 10/3 for discussions at NOHRSC. Micha will stay at NERFC on Friday to conduct configuration training for the staff.

Karel has put together a draft agenda which he forwarded to the group during the meeting. To summarize:

       Monday – preparations for workshop
       Tuesday morning – outstanding action items; data input and output (this session will be extended based on the discussions above. Lay out concepts and how they change over the course of the transition); status of OHD development work
       Tuesday afternoon – migration (process, tools, testing – Micha reports that automation was easier than expected); possibly some play time with new pilot configurations; general configuration tools
       Wednesday morning – interactive forecasting interface (MODs, how far Deltares were able to get based on Portland discussions in August)
       Wednesday afternoon – HEC-RAS, ensembles (based on Albrecht's recent visit to OHD), calibration, verification, archive system, ffg.
       Thursday morning – communication and general project management; next steps for hardware; feedback on installation and diagnostics tools.
       Thursday afternoon – leave open/TBD.

Discussion

Will new segments recently sent by ABRFC to Deltares be included in the configuration? Yes. Deltares will distribute new configurations for CAT RFCs at the workshop.

Where are we wrt pre-processors? Are there any gaps? How do we come up with mean areals, and how do we compare during parallel ops? The DOHs were supposed to discuss this at the last DOH meeting but they didn't. RobS agreed to lead/facilitate a discussion on this at our workshop. Set this for Thursday afternoon.

Are we interested in hearing about Deltares' FEWS development? Yes. (This may be our first opportunity to influence……)

Should we discuss AWIPS-II progress? No need. The recent AWIPS-II TIM highlighted the fact that Raytheon will be performing less invasive surgery than originally advertized – we are hearing about more and more pure re-packaging of hydro software. For their SHEF parser Raytheon apparently used sample SHEF products, not the published SHEF standard.

Action: Everyone to send any final comments/agenda requests to Karel ASAP.
Action: Karel to update workshop agenda and re-distribute to the email list.

3. FYI – FY09 budget planning

The FY09 Hydro planning cycle has just begun. Chris is Core Goal lead for CHPS (#13) and XEFS (#8); the CAT and XEFS Oversight Group members will be de facto core goal team members. Chris will try to minimize additional work needed, but there will a need for some extra conference calls along the way.

What about training for the national CHPS workshops? Will it come out of the Hydro budget or something else? The Hydro budget shouldn't have to pay for all the CHPS training. It isn't clear yet exactly how it will be paid for, but certainly CHPS must appear as an item in the training budget.

FYI – travel costs for NWSEO representative to attend CHPS workshops will not be picked up by the Union; and NERFC can't afford to pay. Maybe ER can contribute. OHD will address the topic with Gary Carter when we get word that Ron's nomination to the CHPS team is official.

Action: (placeholder) OHD to speak to Gary about funding travel for NWSEO rep to attend CHPS workshops.

4. Other items

None.

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 9/25/08.