Status Report February 2005

Requirements Request

So far, 6 RFCs have provide feedback on the recent request for RFC input on application(s) for accessing adb meta-data tables and keeping the data in-sync with the operational IHFS db. Feedback has been received from ABRFC, APRFC, LMRFC, MARFC, SERFC and MBRFC. Deadline is March 4, 2005.

Build OB6

The OHD/HL system administrator folks have run into a major glitch in setting up an OB6 development box. While this problem is being resolved, Julie Meyer (MBRFC) has been working on converting the adbinit suite applications, locatdef and ingestdef, to read a postgreSQL IHFS database. After spend several frustrating days trying to create a makefile that would make an executable… Jule had success on Feb. 17th and has now successfully created executables for both applications. She is now is testing both applications. Julie appreciates the information Mark Fembers (OHRFC), John Halquist (NCRFC), Paul Tilles (OHD/HL) and Hank Herr (OHD/HL) provided. Each provided a "piece of the puzzle" in resolving the variety of makefile, ecpg and gcc errors that were occurring.

Plans are to include changes to two adb database tables. These changes will correct design flaws that were not detected until recently. In both cases, these columns should never have been part of the table definitions in the first place. The proposed changes are:

1) drop the quality_code column in the unkstnvalue table

2) drop columns quality_code, revision, product_id, prducttime and postingtime from table pehfsep.

Build OB5

OHD/HL has been tackling the various bugs that have been reported for the two shefdecoders. Significant progress has been made. An interim release of the raw shefdecoder was made earlier this month so that RFCs could benefit from some of bug fixes, in particular, one connected to mysterious crashes, decoder refusing to stay up and running, and speed.

Brenda Alcorn, CBRFC, is still working on fixing the bug APRFC reported while testing the ob5 version of process_stage.

New Information on the RAXUM Web Site

A new item has been added to the Documents/Presentations web page under the "Charts and Other Information" section. The new item is a flow chart for the process_stage application (ob5 version).

http://www.nws.noaa.gov/oh/rfcdev/projects/rfcADEMT_docs.htm

Status of Enhancement Requests

Last summer, the RAXUM team asked the RFCs to rank the enhancements that were on the Archiver List at that time. Note the ER#s may be different then last summer. The top 3 items from this request were:

1st: ER-7 DatView Enhancements
2nd: ER-6 new application, arcnav
3rd: ER-4 DatView Enhancements (additional time series plotting capabilities)

James Paul, ABRFC, is working on both DatView enhancement requests along with some of the bugs that have been reported.

Arleen Lunsford, APRFC is working on the new application, arcnav.

Since the survey last summer, several enhancement requests have been received. Status of the rest of the enhancement requests follows.

Assigned

- ER-1 raw and processed shefdecoders need to write to the monthly data value tables. This was also reported as a bug (E1-19). Posting routines are actively being worked on and should be part of the ob5 shefdecoders.
- ER-2 provide a xmrgviewer. This was combined with ER-6.
- ER-8 DCEXTRACT enhancements, completed for ob5
- ER-9 raw and processed shefdecoder enhancements to posting information. Placed on the OHD/HL requirements list.
- ER-18 ofsshef enhancement. In testing phase.

Unassigned

- ER-3 graphical data display.
- ER-5 specific hydrograph plotting Capabilities
- ER-7 DatView enhancements.
- ER-10 DatView enhancements
- ER-11 Request new db NWSRFS tables for API-CONT model data and application(s) that will read/write OFS information to these tables. Tables have been created and will be part of the ob5 delivery.

ER-12 GUI application to access the meta-data and quality control tables. Based on feedback from some RFCs since last summer, the need for this application has increased. Currently the RAXUM team has a request out for input from the RFCs for information. This information will be used to develop a requirements document.

ER-13 Browser based viewer for the flatfiles archive No action at this time.

ER-14 make necessary changes to raw shefdecoder to adjustfactor table. The db table was added in ob5.

ER-15 raw shefdecoder proposed change for if entry isn't in ingestfilter table but lid is in location

ER-16 DatView enhancement

ER-17 process_stage enhancement

What's Happening - MBRFC

With the installation of Build OB4 last August, the significant problem MBRFC was having with the shefdecoders generating false parsing errors was eliminated. This allowed the office to start the transition of moving verification to the rax. First step was to migrate all the data in be vdb1_1krf database into the archive database. This was done by using the application provided in the ob1 delivery, vfyprogs apps run_vfyobs2shef and run_vfyfcst2shef. These messages were then passed to the raw shefdecoder. MBRFC had verification data for selected sites going back to Jan 1983. The verify pairing routine was then run several times to populate the vfypairs table. Since October MBRFC has been running the national verification apps in parallel, ds1 and rax. Plans are to stop running in parallel this spring.

In addition, MBRC is in the process of migrating the data from their local archive, approximately 10 years of data (Informix on a Windows box) to the rax database. A SHEF encoding routine was written that creating files by SHEF PE code and year, with no file exceeding 5000 lines. So as you can guess there are thousands of files.
To process these files thru the raw shefdecoder, a separate incoming directory was created and the winpast and winfuture tokens for the raw shefdecoder were set to wide open (9999). An apps_defaults_user file was created for this purpose. To give you an idea of the interim release raw shefdecoder's performance, the most recent year processed was 2000. There were 3099 files for this year. It took the decoder approx 56 hours to decode and post these files. Based on the load Saturday and Sunday, it processed 1300 files each day with 6,495,688 values posted on Sat and 6,468,414 values posted on Sun. The difference in posting time to single value per row table versus pseudo array tables was quite noticeable. The time to post 5000 values to single value per row table was noticeable longer the time it took to post 5000 values to a pseudo array table. The raw shefdecoder was able to quickly process the backlog of files created by not processing the real-time data flow once the decoder was pointed back to the standard incoming queue (rfc_arc_data/q/raw).

Prior to starting this endeavor to load the 10 years of archived data, 22 chunks were added to the 6 dbspaces. The check_dbspaces script is used to monitor fullness of the dbspaces as this old data is posted. In addition, a manual level 0 archive is been done once a week.

Reminders

- ✔ Always do a level 0 backups immediately after adding new chunks to an existing dbspaces or when creating a new dpspace.

- ✔ Document the changes you are making to the dbspaces by capturing to file and then printing the file, the information from the onstat –d command and an ls –la of the /opt/Informix/links directory. This information will help you recreate the dbspaces you had in the case of major system problem.

- ✔ First line of support is the RFC Support Group

- ✔ The Importance of Backups, Backups, Backups!
  (both of the database and the files system)