

## **Status Report August 2005**

### **New Information on the RAXUM Web Site**

Flow charts for the level 1 processors are now available. These charts can be found on the RAXUM website on the Documentation/Presentations page.

[http://www.nws.noaa.gov/oh/rfcdev/projects/rfcADEMT\\_docs.htm](http://www.nws.noaa.gov/oh/rfcdev/projects/rfcADEMT_docs.htm)

Also on the Documents/Presentations page is a copy of the "Test Results PostgreSQL V7.4.7 versus V8.0.3 for the RFC Archive System" report.

<http://www.nws.noaa.gov/oh/rfcdev/docs/ReportTestResults6-final.pdf>

### **Testing of Bug fix for OB5 raw shefdecoder**

ABRFC and APRFC have tested it and an interim release is now available (shef\_decode\_raw\_ob5-r26.5). This bug fix fixes the following bug report: The raw shefdecoder is not using datalimits and locdatalimits data properly for the gross and reasonable range tests. The test results are not always written to some of the SHEF data value tables.

### **SHEFPARM File**

It was discovered on 08/24 that the SHEFPARM file delivered as part of the RAX ob5 install does not contain all the SHEF Type/Source codes that the processed shefdecoder needs. A copy of the file has been placed on each office's ds1 in /home/hrl called SHEFPARM\_ax. If you have questions contact the RFC Support Group.

### **Move to postgresQL, Build OB7**

Some additional scripts for the migration to PostgreSQL are almost finished and should be provided to OHD/HL in early September. These scripts use awk to reformat Informix unload files for tables where one or more of date-time fields had to change because of the move to PostgreSQL.

So far the following tables have been identified where data from Informix RFC Archive Database will not be migrated to the PostgreSQL RFC Archive Database:

rating  
ingshift  
wsequation

wsfcst  
wshistorical  
wsperstats  
swsmail  
operapicont  
statesapicont  
adjustfactor

It has been decided that for build ob7 the operation system will be RHE4 and the DBMS will be PostgreSQL V7.4.7. By having the same versions as the rest of AWIPS this will allow for easier support and maintenance and eliminate concerns of upper management about the complexity of maintaining different versions.

The ax2-nhdr system will be upgraded to RHE4 in the near future. In the meanwhile, Juliann Meyer is working with sys admin folks to ensure the COTS such Motif/Xmotif that some of the applications need are installed. The support programmers in the field and at OHD/HL can start working on converting applications with the current set-up (ax2-nhdr has RHE3.0) Time is short because all work must be completed by late March 2006. The people in the field involved with the move to PostgreSQL are: Arleen Lunsford, APRFC, Brenda Alcorn, CBRFC, Steve Shumate, CBRRC, James Paul, ABRFC, Victor Hom, NERFC and Juliann Meyer, MBRFC.

### **PostgreSQL version of the RFC Archive Database**

The following changes will be made when the RFC Archive Database moves from Informix to PostgreSQL:

- The following tables (which took advantage of Informix's table fragmentation) are no longer fragmented: *pecrsep*, *pedrsep*, *peoosep*, *pedfsep* and *unkstnvalue*.
- The parameters of "extent size, next size" no longer exist when defining a table.
- The methodology on lock mode changes with the move to PostgreSQL.
- For the following tables the column name "desc" was changed to "descr": *opersnow17*, *segoper*, *opersacsma*, *operunithg*, *operapicont*, *area*, *areasens*, *cgroup*, *drain*, *fgroup*, *opertype*, *pos* and *seg*.
- For table *crest*, the column "old" was changed to "olddatum".
- Table *riverstat* is removed in ob7; this table has been obsolete since ob5.
- Table *rating* changed in ob7 to accommodate a request from the National RATINGS team led by Dave Reed. Part of the change takes advantage of a feature that exists in PostgreSQL but does not in Informix, i.e. having a column as an array.

- Table *ratingshift* has a couple of changes due to the new rating table structure, these are: added column “src” and changed the primary key to be in sync with then *rating* table.
- Table *rivercrit*, selected columns changed from “float” to “numeric(10,2)”. These columns are: fis, action, alert, bank, flood, modflood, majflood and record.
- For table *pempsep* the column name “obstime” was changed to “cal\_yr”... this makes it sync with the *pemrsep* table name for that column.
- For the SHEF data value tables, the column name “value” was changed to “datavalue”.
- For the NWSRFS mod tables, the column name “value” was changed to “modvalue”.
- For the table *prod*, the column name “max” was changed to “pmax”.
- Most of the changes related to data type were straight forward, however the data type used in Informix for date-time columns in several tables was not available in PostgreSQL. A different date-time data type was chosen for these columns, therefore some of the data unloaded from Informix had to be reformatted before it could be loaded in PostgreSQL. The changes are as follows:
  - Table *pedpsep*, the column “obstime” (which was “datetime year to month”) becomes data type of DATE, where the day is always 01.
  - Table *ingestfilter*, the column “obstime” (which was “datetime hour to second”) becomes data type of TIME.
  - For table *qadjust* the columns “b\_date” and “e\_data” (which were data type “datetime year to month”) become data type of DATE, where the day is always 01.
  - For tables *statesapicont*, *statessacsma* and *statessnow17*, the column “obstime” (which was data type “datetime year to hour”) becomes data type of TIMESTAMP, where minutes and seconds are always 00:00.
  - For the NWSRFS mod tables, when applicable, the columns “sdate”, “rdate”, “vdate” and “edate” (which were data type “datetime year to hour”) become data type of TIMESTAMP, where minutes and seconds are always 00:00.
  - For tables *datalimits* and *locdatalimits*, the columns “monthdaystart” and “monthdatend” (which were data type “datetime month to day”) become varchar(5).