

## **STATUS REPORT - March 2007**

### **Move to Postgres, Build OB7.2**

Finally, the last of the RFCs survived the ob7.2 install on the rax. Unfortunately at least for the RAX this install was particularly painful and more than one office experienced hardware problems.

Reminder, once a RFC completes the install, the RFC should review the "Getting Started" section of the ob7.2 online documentation. This document can be found at: [http://www.nws.noaa.gov/oh/rfcdev/docs/A4\\_gettingstarted.pdf](http://www.nws.noaa.gov/oh/rfcdev/docs/A4_gettingstarted.pdf)

### **Postgres ob7.2 raw shefdecoder posting performance**

The team leader (Juliann Meyer) and the RFC Support Group (Randy Rieman) have had some success in finding ways to improve the posting performance of the shef\_decode\_raw application. On awips nhor system's rax, Randy did a pg\_dump of the existing adb\_ob72nhor DB and then dropped the database. He made sure shefdecoders and oper's cron were turned off, and then did a restore of the database from the pg\_dump file. This was followed by a manual run of the run\_vacuumdb script. Decoders and cron were turned back on. Posting performance was monitored for the next few days and was unchanged from the earlier stats computed. It was decided to reboot the system, and posting performance was again monitored. The results are as follows:

before avg posting rate: 6.2 values/sec  
after avg posting rate: 60.9 values/sec

Best of all, all messages on ax-nhor are being processed by the shef\_decode\_raw application in under 1 minute.

This procedure was performed at WGRFC late last week, and initial results indicate that posting performance has improved there as well. Preliminary results show WGRFC has gone from average of 4.4 values/sec to 48.5 values/sec.

Randy Rieman is coordinating with NWRFC to see if this procedure also improves their dismal shef\_decode\_raw performance.

In the meanwhile NERFC has tried tweaking some of the shef\_decode\_raw apps\_defaults token settings. NERFC has found this appears to have helped improve shef\_decode\_raw apps posting performance. The team leader is coordinating a test of this possibility at APRFC and WGRFC as well as the ax-nhor system.

The third possibility being explored is to run a re-indexing query on the database tables. This has been tried at MBRFC, and so far, it appears that the shef\_decode\_raw apps performance was unchanged.

As a reminder, remember the apps log\_stats.tcl will allow you to get a feel of the posting performance your site. The on-line documentation can be found at: [http://www.nws.noaa.gov/oh/rfcdev/docs/M5\\_logstatsOB72.pdf](http://www.nws.noaa.gov/oh/rfcdev/docs/M5_logstatsOB72.pdf)

### **Postgres Query Performance**

Some offices have expressed concerns about the query performance on the RFC Archive System. Currently Juliann Meyer is rerunning the query performance test procedure from the 2005 study on ax-krf and should have some information available in the near future.

### **Miscellaneous Note**

Recently on the development system at HL, ax2-nhdr, in order to test a script that will add some new tables/columns to selected tables in ob8.2, this script was tested on the test archive db that exists on the system. As the last set in the ob8.2 test, the database is renamed. So in order to have an ob7.2 archive database on the ax2-nhdr system, the ob7.2 database was restored from a recent pg\_dump. Based on what was learned from the restore on ax-nhor, the system was rebooted. The good posting performance that existed before was gone and posting performance was awful. Just to satisfy curiosity, the shef\_decode\_raw apps was pointed to the ob8.2 database. The good posting performance returned. A comparison of schemas between the two test databases, showed that some key indexes on some tables had been lost during the ob7.2 database restore. Once these indexes were redefined, the good posting performance returned. The team leader and HL are still looking into why some indexes were lost.