

Status Report May 2005

Requirements Request

The team is working on a response to the field's comments and making changes as appropriate to the Requirements Document. The team plans to have the revised document along with its response back out to the field by mid-June.

Build OB6

The ob6 build information should be on the RAXUM web site in early June. Any new or updated documentation will be posted to the on-line documentation web site over the next few months as documentation is completed.

Move to postgresQL, Build OB7

All software enhancements and any new application development is being frozen at the ob6 delivery. Only bug fixes will be worked on for the next year. With only one exception, all changes to the database not related to the postgresQL move are also frozen. The only exception is some changes to the structure of the rating table are being considered to address some concerns that have been raised by the *RATINGS* team led by David Reed, HIC LMRFC.

The RAXUM team, with Juliann Meyer being the main player, will be focusing on the database schema changes and the determination of most postgresQL parameters. The Hydrology Lab (HL) will be focusing on the migration strategy. The RAXUM team will be reaching out for assistance and technical expertise on a variety of topics/issues from the RFCs as needed.

In mid-May, HL's postgresQL consultant, David Cramer, visited MBRFC and Juliann Meyer. The two days were spent going over the many issues related to the move of the RFC Archive DB from Informix to postgresQL. Juliann now has a very clear idea of the DB schema changes that need to be made as well as how to do them. Some of the issues had already been tackled by the move of the IHFS DB to postgresQL, so a solution was already known. In other cases, when there was a choice in how to make the change to a table(s), the originating programmer, whose program(s) would be impacted, is being consulted.

In addition, a discussion of which version of postgresQL would be best was discussed and a test plan was sketched out. Later this summer, testing of "typical" queries mostly to the SHEF data value tables will be performed on both a version 7.4.7 database and version 8.0.3 database. These same queries will also be run on the existing Informix RFC Archive DB.

There are some key issues specific to the RFC Archive DB that the migration strategy will have to tackle and overcome that were not issues for the IHFS DB migration. Information on these issues and possible solutions is being collected.

What's Happening - SERFC

The RFC Archive Database/Files System (RAX) was installed at the SERFC in August of 2003 to store "data. Some observations had been storing on the RAX since August 2003 and some text and gridded data had been storing on the RAX since February 2004. However, all of this data was lost due to a complete failure of the RAX system on November 29, 2004. See Important Note below.

The entire RAX system had to be replaced with a spare from NLSC. Since there was no Integrated Logistics Support Plan (ILSP) for the RFC RAX and system restore procedures were not completely documented, the following entities were involved in the restoration of the RAX at SERFC:

NCF/NGIT/IBM
Peachtree City Electronic Technician Staff
Southern Region AWIPS Focal Point
Southern Region Hydrologic Services Division
RFC Support Team
RAX Update and Maintenance (RAXUM) Team
SERFC AWIPS Focal Point

The system was restored to AWIPS OB4.1a operational status in February, 2005. Text and gridded data, as well as, observations in the RAX Informix database, have been storing in the RAX system since its restoration. In addition, all observation data that is being stored in a DS Informix archive database for SERFCs CONUS area of responsibility has been transferred to the RAX Informix database. The pe2shef program (written by ABRFC) was used to read the DS archive database tables and create SHEF encoded messages to be put in the queue of the shefdecoder on the RAX. All height, fcstheight, precip, discharge, and fcstheight data from the DS archive database (populated since January 2001) have been transferred to the RAX. The DS Informix archive database for SERFCs OCONUS area of responsibility still needs to be transferred to the RAX. Note that 12 additional chunks of database space were created on the RAX to accommodate the DS archive data.

Below is a description of the gridded and text data that is being archived on the RAX:

Gridded files saved on the RAX for SERFCs CONUS forecast area:

1, 6, and 24 hr QPE xmrq files
all other hourly MPE xmrq files

6 and 24 hr QPF xmrq files
1, 3, 6, 12, and 24 hr ffg xmrq files

Gridded files saved on the RAX for SERFCs OCONUS forecast area:

1, 6, and 24 hr QPE xmrq files
all other hourly MPE xmrq files
1, 3, and 6 hr ffg xmrq files

Text category files saved on the RAX for both SERFCs CONUS and OCONUS forecast areas:

coordmsgs
ffgffh
hmd
hyd
qps
rvf
springoutlook
map
fldwav

Data is also being archived on the RAX for the WES-SHARE (Warning Event Simulator – Simulating Hydrologic Activities During Real-Time Events) project.

The applications Datview, Flat file viewer, Display_rc and arfcstprog are being used routinely. The National Verification Program has been installed and tested.

Important note: SERFC was unable to restore the Informix database from tape after the RAX failure. A multi-layer backup strategy should have been in place. A strategy should have been in place to backup the flatfiles. A multi-layered backup strategy for both the Informix database and the flatfiles is currently being developed.