A-1. Summary

Ob8.3

This build delivers two new applications, run_raxdb_sync and start_raxbase. The first application (run_raxdb_sync) is a Non-interactive synchronization application that runs manually or as a cron job, which compares and transfers data from an IHFS DB to a RAX DB. The second application (start_raxbase) is a Graphical User Interface (GUI) database manager application which can be used to manage the data in a RAX DB by allowing the user to view and edit data contained in its Meta-Data tables. This GUI application has a similar look and feel to the WHFS Hydrobase application.   These two applications were developed as a result of the HOSIP project "Synchronize RFC Archive Database & IHFS Database".

Also included in this build is the upgrade of the Postgres RDBMS from version 7.4.8 to version 8.2.6.

In addition, this build includes one small enhancement and seven bug fixes. The small enhancement includes one new table*, peirsep*, and changes to shef_decode_raw and to the national river verification software, IVP.   The bug fixes are for applications DatView, ofsshef and shef_decode_raw.   Other changes include the updating of the SHEF reference tables and the creation of a separate log file for the Postgres RDBMS.

ob8.2

Very few changes were made for this AWIPS release. Changes made were all related to the national river verification software, IVP, and included the addition of a new table, *vfyprocpairs*, as well as the addition of three new columns in the *vfyruninfo* table.

ob7.2

This section covers AWIPS Release ob7.2 for the RFC Archive Database/Files System (RAX).   For release ob7.2 the operating system (OS) was upgraded to Red Hat Enterprise 4 (RHE 4) and the relational database management system (RDBMS) was changed from Informix to Postgres 7.4.8.

All software and scripts had to be updated because of the change in OS and RDBMS. The effort for this transition began in April 2005 and, except for bug fixes, no changes to the RAX software were permitted during this transition.

Several changes were made to the RFC Archive Database schema based on what could and could not be carried over to Postgres from the RFC Archive DB as it resided in Informix. The following changes were made:

- 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 methology on lock mode changes with the move to Postgres.
- 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 Postgres 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 the *rating* table.
- In 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 straightforward, however the data type used in Informix for date-time columns in several tables was not available in Postgres. 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 Postgres. 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_date" (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.

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> ➢ For tables *datalimits* and *locdatalimits*, the columns "monthdaystart" and "monthdatend" (which were data type "datetime month to day") become varchar(5).

Additional build information can be found on the RFC Archive Database Update and Maintenance (RAXUM) team website in the build info section.

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