

## **AWIPS II Topic of the Week -- Data Storage**

In AWIPS II, data is stored either in HDF5 files (see <http://hdf.ncsa.uiuc.edu/HDF5>) or in PostGres databases.

PostGres is already in use with the current AWIPS, and the HDF5 files will replace our current netCDF files, as well as be used to store binary data (e.g., radar, satellite, etc.). HDF5 provides faster access than netCDF for large datasets. All ingested products have a unique "data uri" key, which is kept in a PostGres table. Text products are also kept in the PostGres database in the same textDB with which you are familiar. Hydrologic observations will be stored in PostGres in the same database structures currently in use. In order to translate between the descriptions of data within the Java code and the PostGres database, Raytheon uses the Hibernate project (<http://www.hibernate.org/>), an object relational mapping (ORM) software layer for Java.

Together, the collection of tables in the PostGres db and the HDF5 filesystem form the AWIPS II database.