

AWIPS Build OB5 D2D software release notes

These are changes from Build OB4.

Note: These are working notes on FSL's part of the Build OB5 work. Some items may be modified or removed before OB5 hits the field. Official Release Notes will be posted at the NWS AWIPS site once the field release is ready.

Infrastructure

- A new data purging method is being introduced beginning with this release. For now, it will be used for METARs, radar, and grids. This method is more flexible than that used previously, and will allow for improved site customization. A feature of interest is that it's now possible to preserve data at variable frequencies. For example, the default METAR purging scheme is to keep 34 hourly versions, another half day at 3-hour intervals (0000, 0300, etc), another day at 6 hours, and another week of 12Z files. (FSL)
- It's now possible to exclude selected files from the text database. (The purpose of doing this is to improve performance of the database.) To filter products otherwise stored via the StdDBDecoder process, one can define environment variable STD_TEXT_EXCLUSION (note that this is defined by default), after which AFOS IDs listed in \$FXA_HOME/data/exclusionProductList.dat will not be stored in the text database. Entries in the exclusion list can use 000 as a wild card for CCC, NNN, or XXX (but not 000000000). (SEC)
- Arrival of the DHS alert message DNMWNO will trigger a red banner message. (SEC)
- Sometimes the main pane hangs, but Restart Dead Panes tells you that all panes appear to be running normally. It's now possible to force the main pane to restart. (FSL)
- Upon startup, the user name is set to the default, awipsusr. Fifteen seconds after startup, the user's name is set in the window frame. At that time, the user's procedures and color tables become available. (On a slow or busy system, one or more of the display panes may not be running when this setting is applied. In that case, an error dialog will be displayed, mentioning a "igc_mgr_priv" error. This does not cause any problems, however.)

Graphics/image workstation

New features

- A new method of selecting feature locations by ID is added to the Tools and VB Tools menus. One can use this "Choose by ID" method to set points, baselines, and Home for

conventional locations like METARs and RAOBs, but its primary use is for 88D-identified mesocyclone locations (see DMD below).

- You can now globally set line width and style from new entries in the Display Properties menu. You can also set the background display color via a new selection from the Options menu or via the button-3 popup over the display. (Note that the background color is affected by the image brightness setting, and that sample color is always white, so that samples may be difficult or impossible to read if you pick a very light background color.)
- Radar items:
 - Terminal Doppler Weather Radar (TDWR) data are now available for display. Many sites will not have any TDWRs in their menu, and many will have one, on the main menu between an 88Ds and "Radar." A few sites will have multiple TDWRs on the menu. Products in the TDWR menu include Z/SRM8, Z/V, four-panel Z/V and Z/SRM8, Z, V, SRM8, spectrum width, and a Unit Status Message. Enhancements have been made to the radar applications (OTR, RPS list editor) to accommodate TDWRs. (RMR may include TDWR in OB6.)
 - A "Dig Mesocyclone (DMD)" selector is added to the kxxx Graphics menu to display a plan view of mesocyclones from the Digital Mesocyclone Display algorithm. This is similar to the "MD" display, but uses five strength categories vice two in the latter, standard progressive disclosure (weaker features appear as you zoom or increase density), and sampling for feature characteristics.
- Volume Browser:

Improvements

- Now that both GOES-W and GOES-E data are available at all offices (due to changes in SBN transmission), the CONUS-scale images can take advantage of higher-resolution data from both. (Previously, the "local" side was at higher resolution than the other.)
- High density winds now includes data from the 3.9 micron channel.
- Fire weather zones is now a standard entry on the background maps menu.
- The appLauncher menu (used to start D2D and other applications) now opens cascading menus when the pointer rests on the menu, rather than requiring a click. (SEC)
- Test watch boxes issued by SPC will now be tagged "TEST...TEST" and drawn with dashed lines.
- Volume Browser:
 - The Source menu is split into "Grid" and "Other" menus to reduce required mouse movement. The latter includes soundings, METARs, and the new Digital Mesocyclone Display (DMD), among others.
 - New fields associated with DMD include Radial Velocity, Feature Strength, Feature Diameter, Shear Mag, and Gate2Gate Shr.
 - Also for DMD, the VB includes a new MaxShear plane under Misc.
 - Other new fields are Feature Motion ('FeatMot') and wind divergence.
 - Ensembles now extend to 192 hours.
- Radar items:
 - When using the Radar Graphics Controls, it is no longer necessary to pan or zoom to see the effect of changes.
 - RPS lists can now accommodate up to 150 products. [SEC]

- WarnGen items:
- Product Maker items:
- Non-FSL work that affects the UI:
 - In the NCEP/Hydro menu, the bottom section is now titled *Local Analyses/Statistical Guidance* and includes a new HPC Station Data submenu containing max/min and 24h PoP MOS station plot products. In addition, the *MOS* section under LAMP/MOS Forecasts now includes multiple products from GFS, GFS Extended, Eta, and NGM MOS in place of the old single MOS Station Plot. (MDL)
 - Volume Browser *Fields* now includes Parcel LI for the 12km Eta. The menu entry is under Sfc/2D -> Convective. (SEC)
 - DGEX divergence and advection contours are smoothed for easier interpretation. (SEC)
 - SCAN (MDL):
 - now uses SBN radar products, to support site back-up (DCS 3133) -- these appear in a new "SBN/Dial Radars" section on the SCAN menu
 - mesocyclone alarms now based on DMD product (DCS 3134) <!--[cancelled]
 -
 - includes a cumulus identification and display (DCS !--2647--3135) -->
 - FFMP (MDL):
 - automated Basin Layers (DCS 3129)
 - appearance/format improvements (DCS 3130)
 - full implementation of Point Data Control (PDC) (DCS 3131, 3132)
 - new xxxx Small Stream Basin Links map on the FFMP maps menu (DCS 3155)
 - LSR (MDL):
 - improved handling of over-water events (DCS 3136, 3137)
 - SAFESEAS (MDL):
 - 24-hour table of station reports (DCS 3145)
 - Lightning data for Pacific Region (SEC; DCS 3161)
 - Display MOS output as station plots (MDL; DCS 3147)
 - HPC 4-7 day guidance grids are added to the Volume Browser, with new source HPCGuide. Fields include max and min temp, PoP, cloud cover, wind speed/dir, dewpoint, and weather. (SEC; DR 15067)
 - The RAMSDIS water vapor color table is now included in the Sat:WV section of the Color Tables menu (SEC; DR 14860)

Remaining bugs

Our old list of not-quite-what-we-want features...

- The default load mode (Valid Time Sequence or Latest Model Run) is restored after a swap, instead of whatever mode you had set when that information was in the large pane.
- Once you're in 4-panel mode, you stay there until explicitly **Clearing** the screen. If you select products on a different scale, you'll get the same thing loaded in each panel.
- Samples on skewT charts include a degree sign in front of K.

- If you turn lat/lon readout on, then bring up a skewT and sample it, you'll get lat/lon info for the previously displayed map (in addition to the chart information that you want). The pop-up correctly does not include the lat/lon toggle button, so you can't turn it off.
- Sounding plots are computing bad wet-bulb zero heights near the surface when there should be no wet-bulb zero crossing.
- The Product Maker provides access to satellite images only on the Northern Hemisphere, CONUS, and Regional scales.
- If you select MSLP as the field in the Product Maker, you must select a(ny) pressure level, in order to display it.
- When as1 fails over to as2, you see a red banner that tells you so, and says that you may need to restart in order to continue to get auto update and product time updates on the menus. In fact, this is not necessarily the case. To minimize the disruption for restarts, you should monitor radar or other frequently-updated products to see if you are getting notification of new products (display or menu update). Only if not should you restart the workstation.
- A torn-away Product Maker Source menu does not respond to scale changes. This can lead to one selecting a model source that is invalid for the scale.
- This is not really a bug, but the way the alert area request application works may be a little confusing.

The alert area request can display/edit only two areas at a time, one Area 1 and one Area 2. They can be for the same radar or, for those sites that have more than one dedicated connection, for different radars. For example, you can use Area 1 for radar A and Area 2 for radar B. However, if you start with Area 1 for radar A and then try to display/edit Area 1 for radar B it won't work; you must first clear the display and select another radar if you want to display/edit another Area 1.

Text workstation

New or remaining bugs

This is the standard bugs list. These have been around long enough that we could call them "undesirable features" at this point...

- The WarnGen window occasionally doesn't pop up automatically. Workaround: Request WRKWGx from any window. (The warning expiration reminder won't work in this case.)
- The text subsystem still uses 3-character station IDs. As a result, the Help function in the browser and the button-2 popup station ID info on METAR messages can't distinguish between Kxxx and Pxxx. Usually, both are shown, leaving it to the user to figure out which one applies.
- Like many other products, pilot reports come in a collective and are stored under the site ID instead of your local CCC. Thus, a pilot report referenced to DHN would be stored as BHMPIRDHN. Some erroneously get stored by 2-letter state ID under your local CCC, e.g., PIRAK. Most of the latter are duplicated in the site-ID style.

- The "ss.NNN" construct does not work.