

AWIPS Build OB3 D2D software release notes

These are changes from Build OB2.

Note: These are working notes on FSL's part of the Build OB3 work. Some items may be modified or removed before OB3 hits the field. Official Release Notes will be posted at the NWS AWIPS site once the field release is ready.

Infrastructure

- Radar "dialout" now can use the WAN rather than actually dialing a telephone number. (The feature will be activated on a site by site basis sometime after OB3 installation.)
- The CPU monitor now includes the Linux workstations (work performed by SEC).
- Several new commands are available for text retrieval. These can be run only on the DS, and were added to support the Watch by County Notification (WCN) function.

textdb -r A:HH CCCNNNXXX	retrieve the last HH hours' data for product CCCNNNXXX
textdb -r A:HH 000NNNXXX	retrieve the last HH hours' data for any NNNXXX
textdb -rw <WMO ID> -rs <site ID> -rh <HH>	retrieve the last HH hours' data for the given WMO ID and site
textdb -rw <WMO ID> -rh <HH>	retrieve the last HH hours' data for the given WMO ID
textdb -rs <site ID> -rh <HH>	retrieve the last HH hours' data for the given site

Graphics/image workstation

New features

- Plots of winds from the QuikSCAT satellite are added to the Obs menu. These scatterometer winds appear over ocean areas.
- The Sounding-derived plots section of the NCEP/Hydro menu now includes a ceiling/visibility/weather plot from the forecast soundings. Please note that separate algorithms are used to compute the cloud layers and the cloud base, and that the cloud base algorithm always assigns a base if there is convective precipitation forecast, so there will be inconsistencies at times in the plots.
- New CPC temperature and precipitation anomaly forecast displays are now available on the NCEP/Hydro menu ("Outlook Grids"). These monthly outlooks are displayed from grids, so can be displayed in image form using the popup menu over the legend. The first two menu items load below-, near-, and above-normal fields.

- Radar items:
- Volume Browser:
- Non-FSL work that affects the UI:
 - The system monitor now includes links to the NDFD monitor page and IFPS Service Backup configuration information. (MDL)
 - New on the satellite menu is a suite of GOES imagery produced by the sounder instrument. (SEC)

Improvements

- The behavior of the sliders in the Image Controls dialog has changed to make brightness and fade operations more responsive on the Linux workstations. Now, when you drag with button 1, no changes are made to the display until you release the button. You can still click with button 1 for a single step change, or click with button 2 for a "snap to" change.
- You can now sample the value of a vector displayed with arrows.
- Volume Browser:
 - Numerous additional parameters are now available via the Volume Browser. These include SWEAT index; several CAPE fields, including cross sections and layer max; CIN; downdraft CAPE; helicity; non-QG (Petterson) frontogenesis; and forward propagating Corfidi vectors. For ensembles, new fields include wind speed mean/std dev and accumulated precipitation. Other new fields are virtual temperature, mixing ratio, and wind direction. Some new pressure layers are added, along with additional AGL choices (for the Vorticity Generation Parameter) and a few equivalent potential temperature levels. Also new are time series of low-, mid-, and high-level cloud cover from model soundings.
 - Additional tropical cyclone wind grids will be available on an event-driven basis. These grids (Central Pacific/Hawaii and Western Pacific/Guam areas) are primarily for use in IFPS, but will be accessible for display from the Volume Browser (source HawHurWind and GuamHurWind). A new wind direction depiction is also available to use with these grids.
 - The AVN and MRF names have been retired, with all such grids now referred to as GFS.
 - Grids are now titled with their delivered resolution (e.g., ETA40, GFS180). In some cases, however, higher-resolution components are available, such as Eta precipitation, or different resolutions are used at different time projections, such as >168 hours on the GFS (old MRF). The product label will show the actual resolution of each grid used.
 - Eta model grids are available to 84 hours, and AVN (higher-res GFS) to 168 hours (both installed with an OB2 patch).
 - See Radar, below, re a change in the VWP display.
- Radar items:
 - Support is provided for new radar VCPs. Among other things this means:
 - Legacy 4-bit (16 level) and 3-bit (8 level) products are demoted to submenus, as the display now uses generic selectors that load 8-bit (256 level) data, if available, filling in with 4-bit or 3-bit as necessary.

- Standard storm and clear air reflectivity color tables are now "ramped," to take advantage of the 8-bit data depth. **Note:** Due to the new data-value-to-color mapping used by the combined 8-4-3-bit data, many custom tables will not work with the new displays. The procedure update program will in those cases erase the color table stored in the bundle (actually, replace it with all zeroes), with the result that the default color table will be used with these displays. In such cases, you'll have to recreate your custom tables and reapply them to the bundles.
- Instead of each individual tilt being on the menu, and the resultant sparse selection of "live" items, depending on VCP in use, the menu now lists "tilt bins" which will be more generally populated by current data. In addition, a change from, say, 3.5 to 3.4 degree tilt with a VCP change will be transparent, with a loop selecting the tilt needed for each frame from within the bin.
 - New radar products include Digital VIL (DVL), Enhanced Echo Tops (EET), and Digital Storm Total Precipitation (DSP). New color tables to support these are found in the Radar color table submenu: Digital VIL, Enhanced Echo Tops, and Storm Total Precip. Also available are OSF versions of DVL and DSP tables.
 - Combined VWP-model soundings (via the Volume Browser) now are available for each volume scan, with the model data time-interpolated to the VAD winds time. Model winds are used above the top of the VAD stack to complete the profile. (Note that the model data are from the grids, not the point soundings.)
 - It's now possible to request MRU with multiple elevations from the One-Time Request application.

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.