

## IRIS 8.00 Release Notes

These notes cover changes made in IRIS since release 7.32 of 17 January 2003. If you are upgrading from an earlier release, please read those notes also.

### Important Upgrade Changes

2. To use the new pixmap icon for disdrometer displays, you must copy the file `disdrometer.xbm` to your overlay directory. This can be done with the following command:

```
$ cp ${IRIS_ROOT}config_template/overlay/disdrometer.xbm ${IRIS_OVERLAY}
```

### Data Format Changes

3. Changes were made to the GAGE product to support disdrometers. GAGE products can have a mixture of traditional raingages which measure rainrate, and disdrometers which measure a Z/R relationship, and dual gages which do both. There were changes to the `gage_results` structure and to the `gage_psi_struct`. **Productx** was enhanced to display this information. The QLW display of disdrometers uses a distinctive icon, and the pop-up shows the Z/R numbers for the last 12 hours.

### Bug Repairs

1. Fixed a bug in the IRIS server which can cause you to get the error “rcp unknown host” on systems with multiple networks. We now figure out the hostname of the client menus automatically.
2. Fixed many IRIS data display bugs introduced with the new full color underlays in release 7.32. Most of these bugs only appeared when the new underlay was in use. The IMAGE products were displayed using the wrong colors. The TRACK and similar products were displayed wrong when overlaid on Cartesian products. (The TRACK product was not showing through the radar product). The XSECT product was displayed with the numbers on the bottom of the picture chopped off. The GIF underlay was not correctly positioned on the overlay when the product had blank on the bottom in the display. The colors were wrong in the old legends.
3. The IRIS dsp library has a new function `DspResetFifo()`. This function fixes a bug which caused lockups on RVP8's at the end of a volume scan.
4. Remote launching of **bitex** while using a second network card was not working. We were sending the wrong hostname/DISPLAY when launching remote **bitex**.
5. The IRIS **HDFSatToIris** input pipe was changed to vertically flip the picture, and correct Mercator data by a scale factor of the cosine of the reference latitude.
6. Fixed an open file leak in elevation shear. The product generator would eventually fail with the message “No room to allocate another mapped file” after running less than 80 elevation shear products. Bug introduced 1/17/2002 in release 7.28.

7. The product generator would crash with a “floating point exception” when smoothing a velocity product. This happened on only 1 in a million files.
8. COMP product bug found: The Max time span was broken. It was always including data from all sites, even if they exceeded the time window. This has been broken since 7.04 in 1999, when the original COMP product was released.
9. Another COMP product bug: The product arrival wait time was broken on systems using local time, where the timezone is not UTC. It was waiting too long on systems west of Greenwich, and not waiting on systems east. This bug was introduced in 7.31 with the enhanced support for time zones.
10. The COMP product now fills in the “oldest ingest” time with the oldest “oldest ingest” time of all of its inputs. Previously it just took that field from the highest priority input. This will help customers figure out which inputs were in a composite in post analysis. Note that for immediate products like PPIs, the “oldest ingest” time is actually the volume scan time not the ingest time.
11. Fixed sluggish resizing and moving of panel window in **bitex** when an image was displayed in background. This was particularly bad when exporting a display to a RedHat 8.0 system.
12. IRIS has trouble displaying GAGE products which have multiple gages with the same name, so to fix this **AsciiToGage** was improved to now check for duplicate gage names.
13. The WARN product was broken whenever the thresholding was set to “<”. It was including all thresholded areas! This dates back to Feb 2000 in release 7.15 when < thresholds were first allowed. It did work on VVP inputs only.
14. *HP platforms only:* Iris menus displayed an aCC warning message whenever the program was stopped. This probably dates back to release 7.15 in Feb 2000.

## New Features

1. The **RainbowToIris** converter program now supports radar altitude. You need to edit your configuration file to specify the altitude of each radar. See the template file for details.
2. Added a new projection “Equidistant Cylindrical” in IRIS. This is also called Plate Carrée, and has pixels equally spaced in latitude and longitude.
3. IRIS output pipes now have an option to supply their arguments in pathnames format.
4. In the utils/examples directory there is now a new example program called “sector”. This demonstrates how to scan the antenna in a sector volume scan.
5. IRIS now generates signals when the network output connection fails and resumes. This can be used to do mode switching to a backup network. The **mode\_change** program now takes more arguments to help with such switching.

6. There are two new products: BASE which stands for echo base, and HMAX which stands for height of max reflectivity.
7. The maximum size of a movie loop in the QLW was raised from 240 to 300.
8. Iris now includes a new pipe called **IrisToGrib1** which converts some IRIS Cartesian products to the WMO GRIB1 format.
9. All products which use a Z/R relation to computer rainrate from dBZ now allow the Z/R number to come from 3 possible sources: From type-in values, from a disdrometer, or from **setup**.
10. IRIS now supports correcting reflectivity data for partial beam blockage in ingest.
11. **Productx** now shows the oldest ingest time.
12. The COMP product now works on SHEAR inputs.

## Setup Changes

1. Moved the “Manner of Angle Acquisition” question from the RVP section to the Ingest section. This will need to be reentered if you are not using binary tags.
2. The default Z/R numbers now changeable while running via the **setup\_change** program. This supports the new feature of allowing product to use the setup value at run time.