

## IRIS 8.10 Release Notes, Preliminary

These notes cover changes made in IRIS since release 8.09 of 10 June 2005. If you are upgrading from an earlier release, please read those notes also.

### IRIS 8.09.6 Release Notes (2 Sep 2005)

#### Data Format Changes

1. The NDOP product is enhanced to allow the user to select the site name for the output product. This now matches the COMP product. After upgrading, the NDOP product will continue to run as before, that is by using the site of the first input as the output site. The `ndop_psi_struct` is augmented to add this field. All customers should remember to interpret a zero in this field as the old format and use the first input.

#### Bug Repairs

1. Fixed bug in **sigbru** Backup Mode when changing the File name. This would cause the Start Pushbutton to become insensitive and pressed in.
2. Fixed a bug in the IRIS Task Configuration Menu. When Selecting Scan Mode of PPI Sector and pressing the Azimuth pushbutton. The Popup was missing it's resource file label. The same was true for RHI and pressing Elevation pushbutton.
3. The Product Configuration Menu COMP Product was missing the XY Smoother (km) label. This was caused by Widget array overrun from the change to the "Combine By" option menu. Bug introduced on 3/27/01 in Version 7.24.2.
4. Fixed bug preventing mounting DVDs on RHEL4.
5. In the **RainbowToIris** pipe, the scan file name was clipped at 15 characters. It now can go to 79 characters.
6. When displaying an NDOP product in the QLW, the Output Options Tool fields for controlling the maximum string length and wind quality threshold were broken. The same control fields in the POM worked correctly.
7. Fixed another uninitialized projection problem in in the product generator dating back to release 8.00. The NDOP product was sometimes getting the signal "Invalid argument to `mpj_pin_region`". When the happened, the NDOP product was not produced, and an input file was left open causing a open file leak which eventually will stop the product generator from running.
8. When running IRIS in the new Batch mode ingest was turning off the Doppler data range unfolding by setting the max range to 0. Thus no velocities or widths were produced. It is now set to 600 km by default.
9. Added a new possible message. "Radiate control not responding" means that IRIS tried to turn off the radiate before a polarization change or pulse width change and the radiate

- did not go off. If this happens, IRIS will not change the polarization or pulse width. This change was required to prevent arcing on systems which have manual override on the radiate control.
10. The wind barb displays used in VVP, WIND, and NDOP products are changed to now switch sides in the southern hemisphere. Also fixed a missing pixel in wind barb triangles.
  11. Fixed a bug in the GIF underlay drawing. If you specify more than one GIF underlay in the file, it was always drawing the first one even if that layer was turned off. It now draws the first underlay GIF which is enabled.
  12. **Sigbrush** had a bug in tape archiving when using the list command. **Sigbru** uses the **sigbrush** list command to make an inventory. The initial tape index was 1 record to many. Problems which you might have seen are:
    - Never being able to list a very small tape archive less than 8k.
    - Sometimes needing to enter the list command twice to get a tape archive list.
  13. The DWELL, RAIN1, RAINN, and TRACK products were changed to allow up to 2km of radar motion between their inputs. This helps these products run on input products centered on slowly moving ships.

## IRIS 8.09.5 Release Notes (27 July 2005)

### Data Format Changes

14. The server format used between IRIS and the menus has changed. This means that you will not connect the POM, ISM, and ARC menus to previous versions. One up side to this change is that the POM list size is smaller, so the maximum number of files you can see is 1000, up from 574.

### Bug Repairs

15. When loading the RST menu from a saved file, it is possible that the saved POM configuration file is missing. In this case, it would not load any POM config at all, and no error was signalled. This is repaired so now it generates a message. All other sub-menu load errors are signalled.
16. Repaired a color count compression bug in VtvCompressColors2(). When using a colorful IRIS underlay, the total number of colors needed on the screen could exceed 256. This needs to be compressed down, and the routine doing this was failing in some cases. It would produce a picture with crazy colors, or potentially crash the output process.
17. The IRIS menus were crashing in the Product Configuration Menu when pressing the "Type" pushbutton in WARN, COMP, TRACK, FCAST and DWELL. Introduced on 16 May 2005 in release 8.08.13.

18. It is possible now to configure the COMP product to use a blank projection configuration file name. This means to take the center from the first input, and take the pixel size and maximum range from the Product Configuration Menu. Previously it set the center to lat=0 and lon=0, and took the size and range from the first input.

## IRIS 8.09.4 Release Notes (18 July 2005)

### Important Upgrade Changes

19. For web server customers only: We changed the path to access the servlet from `irisservlets/servlet/WebLookWinServlet` to `irisservlets/WebLookWinServlet`. After upgrading, Web Server customers need to manually edit a line in the file `/etc/httpd/conf/workers2.properties`. Change from `uri:/irisservlets/servlet/*` to `uri:/irisservlets/*`.

### Data Format Changes

1. The `ingest_configuration` structure is changed to add a flag word `ilcfFlags`. Currently just bit zero is used in this word. If set to one, it indicates that the first ray is not centered on zero degrees azimuth. Instead it is centered half the azimuth resolution clockwise. This feature was added to interface to such systems. Sigmet does not recommend that customers use this feature.
2. The `server_filter` structure used to pass information in the IRIS menus POM, ISM and Archive is changed. This means you cannot connect new and old versions.

### Bug Repairs

1. The network receiver now treats TRACK product specially. It will always overwrite a previous track product with a newly received one.
2. The three Sigmet supplied RTD data formatting routines (**`rtd_v1_xmt`**, **`rtd_v2_xmt`**, and **`rtd_nids3_xmt`**) were not detecting a configuration change within a volume scan. Such changes are not done in IRIS, but are done in other applications. We now detect changes and set the appropriate header information.
3. **TSarchive** was enhanced to call the `rvp8tsEndCurrentAcqMode()` function between cuts when playing back data. This should force an immediate timeout ray, which allows the application to detect the change quickly. Similarly `tsarchive` will wait a minimum of 500 ms before inserting the first pulse of the new cut. This allows the application time to prepare for it.
4. Changes were made in IRIS passive TS-Playback mode. It will now synchronize the sweeps at playback time with the sweeps originally recorded. This is done by detecting the end of a sweep with either a timeout ray, or a change to the task ID structure. IRIS

will always end its sweep if it detects an original end. Similarly once IRIS has ended it's sweep it will continue to read extra rays from the original data until the end arrives.

Appendix C of the *IRIS Radar Manual* for is revised to cover the new passive features.

5. Fixed a bug introduced in the product generator on 17 Dec 2004 in release 8.00. The product generator had uninitialized memory when using named projections. This could have the effect stopping or producing the wrong results in the COMP, NDOP, SLINE, and any other product using named projections. A typical error message might be "Invalid argument to mpj\_pin\_region" or "Product contains invalid size (0x0)".
6. In general IRIS is designed to be tolerant of single missing rays in it's ingest data. This is now extended to the seam of PPI continuous scans. If a sweep is missing just one ray between the start and end ray, it will no longer be flagged as an incomplete scan. This is particularly helpful with time series playback.

## IRIS 8.09.3 Release Notes

**No such release was made**

## IRIS 8.09.2 Release Notes (23 Jun 2005)

### Installation Changes

1. IRIS speech no longer uses the dictionary. After upgrading be sure to upgrade your /usr/sigmet/config/profile file to match the /usr/sigmet/config\_template/init/profile file. This includes removing the IRIS\_DICTIONARY env variable. You should also remove the dictionary from your config directory as follows:

```
$ cd /usr/sigmet/config
$ rm -r dict
```

### New Features

1. The maximum number of minor tasks in an IRIS hybrid task was raised to 26 from 3. This will allow much more complicated volume scans such as the NEXRAD VCP, and can use all suffixes from "\_A" to "\_Z". We also raised the maximum number of tasks in the task scheduler from 16 to 100. The maximum number of major tasks remains at 8.
2. Improvements in ingest related to detecting the end of a sweep in continuous PPI scans. It will now stop as soon as the sweep is filled. Previously ingest would require 1 or 2 extra rays after filling the full 360 degrees. This is particularly important in passive mode where there may not be any extra rays.
3. In passive ingest, the end of sweep detection is improved for time series playback. It will now also force an end if we detect a 1 second gap in the time series, or if we detect a change in the sweep number.

4. The **rays** utility now displays Batch mode options and point clutter options.

## Bug Repairs

1. The **tsarchive** utility was inserting a small pause between files when playing back a group of files. The pause was after the first pulse rather than before it.

## IRIS 8.09.1 Release Notes (19 Jun 2005)

### Data Format Changes

1. We have added new fields in the `task_calib_info` structure to support configuring the NEXRAD point clutter removal algorithm. Similarly the `task_dsp_info` structure has new fields to specify the configuration of the NEXRAD Batch mode. You can see the *IRIS Programmer's Manual* for more details.

### New Features

1. CATCH products are now kept 24 hours longer than other products in the product inventory. This is how RAIN1 and RAINN products are handled.
2. **Tsview** is enhanced to display average header information at the end of its list. This included the average elevation angle, azimuth speed, and maximum and minimum PRTs.
3. In the task configuration menu, we now have added a pop-up to allow selection of mode specific options for the Nexrad Batch Mode.
4. In the task configuration menu, we now have added a pop-up to allow control of the Nexrad point clutter removal algorithm.