

IRIS 8.07 Release Notes

These notes cover changes made in IRIS since release 8.06 of 10 August 2004. If you are upgrading from an earlier release, please read those notes also.

Installation Changes

1. *RHEL Linux platforms only:* If you are using sound features in IRIS, then after upgrading please install the “festival” package. Find your RHEL cdroms and then type:

redhat-config-packages

Then scroll to the **System** label. Find the “System Tools” section and push the “Details” button. Check the “Festival” button. Dismiss and press the “Update” button.

2. The RAW product now includes a new feature allowing the product configuration menu to select which data types should be included. Unfortunately, the bit which controls this in our product configuration files was uninitialized. After upgrade, you need to check your RAW products to make sure this feature is turned off. This bit was always correctly masked off in the product files, so the data formats are compatible.

Included in this feature is a new field in the task_dsp_info structure to store the originally recorded data types. **Rays** was enhanced to display the original data, if there. **Productx** was enhanced to display the RAW product specific flags, which are the new data-mask bit, and the single-sweep bit.

Bug Repairs

1. The new DB_FLAGS data was not working correctly in 16-bit mode.
2. ReadSocketPacket() and ReadSocketAck() now take timeouts. This means that applications will no longer block forever if **dspexport** locks up.
3. The IRIS Server no longer requires that the client machines are in it's host table to connect.
4. The product specific output options for the WARN product were working from the Quick-Look Window, but not from the Product Output Menu. This is now fixed.
5. Ant_lib now returns the default lat/lon if the INU position fails. This allows a backup for a relatively fixed position ship in the event of an INU failure.
6. Fixed bug in **zauto7** with Siggen On/Off toggle. Pushing toggle button would not change state siggen state.
7. *Linux platforms only:* Repaired some bugs in DVD recording, including infinite loop when recording using a large buffer size such as 1GB.
8. *Linux platforms only:* IRIS audio and speech was not working correctly with an integrated sound card. We now use /usr/bin/play instead of /usr/bin/esdplay, so any symbolic links made to these files can be removed.

9. Fixed a bug in the **UfToIris** pipe. The start range was converted to low by a factor of 1000. Range 0 worked fine, but a start range of 1 km, came though as 1 meter.
10. Sigmet's sound configuration program **audiox** is now named **sigaudio**.
11. The COMP product was not correctly handling inputs of non square AED projections. They were typically shifted a few km in the North-South direction.
12. *Linux Platforms Only:* Printing to postscript printers was broken on RHEL machines unless you configured the printer as "Generic Raw Print Queue".
13. Repaired a bug related to DVD archive use: If you stopped IRIS while data was buffered for the DVD, IRIS would attempt to write out the buffer which it could not do in time. This leaves the DVD in a bad state. The solutions are:
Qiris prints a warning if you have an unwritten buffer.
The Archive Menu will show the buffered data size for DVDs.
IRIS will no longer attempt to record data to the DVD upon doing shutdown. Upon mounting a DVD, any data remaining in the buffer will be preserved and included in the inventory.
14. *Shipboard systems only:* Repaired a bug in the date stored in the extended headers. The update age was always set to zero since 6 August 2002 (release 7.31). This now contains the time in ms since the last INU packet arrived. Since release 7.31, the INU recorded information was extrapolated from the last packet.
15. The "Arg Spec" data type was not being recorded properly in **ascope**. A 16-bit field was being produced, but it was merely a copy of the "Mag Spec" data. The data format for recorded spectral phase is now 16-bit binary angle, and the format for recorded spectral magnitude is (and always has been) hundredths of decibels. Unfortunately, this repair broke the recording of the "Mag Spec". There is a patch available on the ftp site for that.
16. The IRIS antenna library ant_rcv process computes much better average packet arrival times. This means, for example, that it is able to correctly compensate for the WSR88D DCU packet time alternations in the RVP8. Antenna angles that are read from the Antenna Library are now smoothed and extrapolated in a much better manner than before.

New Features

1. **Ascope** now lets you set separate thresholds values for different data types as supported in the RVP8.
2. The RCP8 shipboard INU support is fully implemented. The status box in **antenna** now will report separate Dead INU, Dead Tags, or Dead Angles.
3. We have finally added the ability to turn off range normalization of dBZ and dBT in IRIS tasks. This features was in **ascope** for many years.
4. There is a new data correction for Zc added to the Task Configuration Menu. The "Target Detection" correction will keep all point targets, but will remove continuous runs

- of weather data, only keeping the peaks. The goal is to correctly detect point targets such as birds or airplanes against weaker rain or clear air returns.
5. The printer support utility **sigprint** was enhanced to allow output using GIF & JPEG formats in addition to Postscript. This allows support of non-Postscript printers. Also removed special support configuration for 2 old Postscript models.
 6. Enhancement were made to the antenna library angle processing: It will now average the antenna packet arrival time more accurately. Also a new scheme is used to average, interpolate and extrapolate angles which smooths much better.

Setup Changes

1. In **setup/ingest** there are new questions related to the 3 reflectivity based data corrections. For Clutter Suppression, Intervening Attenuation, and Target Detection there are now options to apply these corrections in reingest.
2. In **setup/rcp** in the *Advanced Interface Features* section there is a new question “Packet Logging”. By default, leave that set to “None”. This is used to debug errors in the antenna position and INU packet reports. When turned on, a log file is created with an entry for each position packet including the time of arrival at ms resolution. This log will also include any bad antenna position reports received. You can set the logging to “Angles” for pedestal angles, or “INU” for roll, pitch, and heading, or both, or to “Errors” for just logging the bad angles.

The location of the log file is dependent on the antenna angle insertion source. If set to “Normal RCP”, then the ant_rcv process will create a log file in the {IRIS_LOG} directory. If set to “Native RCP8”, and the angles are coming from the WSR88D DCU, it will log on the error output of the RCP8. You should redirect that to a file in your /etc/init.d/rcp8 file. We cannot log high speed “Native RCP8” and “Native RVP8” sources.