

## IRIS 7.25 Release Notes

These notes cover changes made in IRIS since release 7.24 of 2 March 2001. If you are upgrading from an earlier release, please read those notes also.

### Data Format Changes

1. IRIS has always assumed that the antenna controller operated in either a position or velocity mode on each axis. To handle some controllers which implement a hybrid mode, we have made the following changes to the XMT02 format:
  - 1) Whenever the elevation mode is set to position we will fill in the maximum positive elevation velocity in the elevation velocity slot.
  - 2) Whenever the elevation mode is set to velocity, we will fill in the maximum or minimum elevation angle (depending on the velocity sign) in the elevation position slot.
  - 3) Whenever the azimuth mode is set to position we will fill in the maximum positive azimuth velocity in the azimuth velocity slot.
  - 4) Whenever the azimuth mode is set to velocity we will fill in 0 in the azimuth position slot.Previously, all these fields were set to zero. Since these fields should be ignored by most antenna controllers (such as the RCP02), it should not cause any compatibility problems.
2. The `warning_results` structure now has propagation speed and direction. These are filled in with zeros, except for warnings made by the Bird Detection algorithm.

### Installation Changes

1. **Instiris** –setown now tries to install sudo on the local system, and **instiris** –copy tries to run the remote “**instiris** –setown” using sudo. This means that once you upgrade to 7.25 or beyond, subsequent network upgrades will not require telnetting into the target system and manually running “**instiris** –setown” as root.

### Bug Repairs

1. The UfToIris convertor pipe was not converting the data correctly to the local time zone.
2. Fixed broken time zone detection in ingest and watchdog. Added time zone display in **productx** and **rays**. Since 20 Dec 2000 (7.23) it was wrong on linux and hp, and uninitialized on SGI.
3. The DSP automatic speed calculation now uses only the PRF. It used to try to estimate how fast different processors were. This was not possible because the speed changes with each code revision. SIGMET recommends that you configure your tasks using a fixed scan speed. You can use the **dspx rays** command to determine how many pulses you are getting in each ray.

4. Fixed a formatting problem on the ISM menu. If the user recorded 7 or more data moments, the screen overflowed, and the tag commands would not work.
5. Fixed velocity tolerance calculation for CCW scans. This was broken since the feature was introduced.
6. Fixed a bug in the antenna utility display of the measured pulse width, as well as the siggen status. These displays have been forced off since version 7.13.
7. The **IrisToUf** convertor pipe had the timezone sign wrong. The documentation for the timezone in the IRIS data format is now clarified.

## New Features

1. The RCP shutdown is now treated as a faultable bit. There is a new question in **setup**, as well as faulting in RST menu, STAT product, and **irisnet**.
2. The major new feature of Release 7.25 is the new DWELL product and the Bird Detection algorithm. See the documentation on the DWELL product in chapter 7 of the *IRIS User's Manual for details*. The change to the COMP product introduced in 7.17 to allow a dwell composite in time is remove because the DWELL product can now do this much faster. Please install the new bitmap files **bird\*.xbm** and **dwellwarn.xbm** into `${IRIS_CONFIG}/overlay` if you are using the bird algorithm.
3. The task name has been added to the (normally silent) ingest message "Beginning a new Volume Scan". The task name and sweep number have been added to the message "Beginning a new Sweep". This additional information allows you to write more specific signal handlers in your SIGNALS.DAT file. For example, you could arrange to have something special happen at the start of the fifth tilt of PPIVOL.
4. The COMP product can now composite WARN inputs. You have a choice of AND or OR combination schemes, as well as MAXIMUM or AVERAGE. The maximum number of centroids allowed in a WARN product is raised from 100 to 300.
5. The **setup** utility now has an option to edit the configuration of a remote machine using:  

```
$ setup -host hostname
```

This is automatically launched from **irisnet** now. This will work much better over a slow network than before.
6. The DWELL product can now run on WARN inputs. It simply combines all the centroids. All the older centroids are renamed to "dwellwarn". Please install the new dwellwarn.xbm file into `${IRIS_CONFIG}/overlay` if you are using this.