

IRIS 7.11 Release Notes

These notes cover changes made in IRIS since release 7.10 of 9 September 1999. If you are upgrading from an earlier release, please read those notes also. The current hardcopy versions of the manuals are: *IRIS/Open User's Manual*: 7.05, *IRIS/Open Utilities Manual*: 7.05, *IRIS/Open Installation Manual*: 7.11, and *IRIS/Open Programmer's Manual*: 7.05.

Installation Changes

1. *Linux systems only*: The machine codes have changed. You will need to get a new license after upgrading.

Bug Repairs

1. The config/pipes and config_template/pipes directories are now correctly filled with the example programs supplied by SIGMET.
2. IRIS is now tolerant of time stepping backwards up to 60 seconds in the middle of operation. This could easily happen with network time syncing. It used to always stop the antenna when the time is set backwards. Note that IRIS supports a time setting feature via the RCP. When using this mechanism, the time is only changed between scans. SIGMET recommends that you stop data collection whenever the time will be changed by more than 10 seconds.
3. Enhancements were made to the SHEAR and SLINE products: Radial, azimuth, and elevation shear are smoothed first before combining. This makes a big difference with combined shear, SLINE would not work correctly on combined shear before. Also in SLINE, positive radial shear is discarded before combining.

New Features

1. IRIS now supports output on a serial line to a ribbon display. This is designed for airport applications. There is a new license feature to drive the display, as well as a new product type called "LLWAS", and a new configuration utility program **ribsetup**. See the new appendix E of the *IRIS User's Manual* for details. The changes were extensive enough that IRIS menus of version 7.11 and later will not connect with older IRIS servers.
2. Another major new feature added to IRIS is support for automatic switching between redundant systems. The switching decisions are made in the RCP02. It considers information about the health of both systems. See the *RCP02 User's Manual*, appendix E for details. There is a new Dual System Select menu accessible from either the antenna utility or from the RST menubar.
3. The IRIS RST menu can now launch the **bitex** utility on the remote system. There is a new button for this next to the BITE status.
4. The NORDRAD and ribbon display interface buttons on the RST menu are now not displayed on systems which do not have these features.

5. All IRIS utilities that use the DSP (including the IRIS/INGEST process) now perform an initial check to verify that the byte order convention of the signal processor matches that of the host workstation. This is important because PCs running Linux use the reverse byte order from our other supported UNIX platforms, SGI and HP. A signal will be generated if there is a mismatch. The only exception to this automatic checking is when **dspix** is started with the "--nochat" option. In that case, direct 16-bit opcode-level communication is available for direct debugging of the interface.
6. The real-time display program can now run at two different window sizes. It now has a smaller size designed to fit on a 1024x768 screen.
7. Connecting to IRIS servers is much easier now. You can switch to a new site without disconnecting. You can also configure the system to automatically poll for active servers, and automatically connect to the preferred system.
8. **Bitex** now supports two levels of faults: normal and critical. Control of this is incorporated in enhancements to the **bitex** utility, RST menu, as well as message popups. Normal faults are indicated with yellow, while critical faults are red. Critical faults are those which indicate that the radar is broken.
9. There are a number of enhancements to the STATUS product to help it detect a faulted system. The old criteria for a faulted system were:
 - Product generator turned off or crashed.
 - Product output turned off.
 - Ingest process turned off or crashed. (radar systems only)
 - Ingfoo process turned off or crashed. (radar systems only)The additional new criteria are:
 - Critical message signaled.
 - Communication to RCP is dead. (radar systems only)
 - The DSP status is "error". (radar systems only)
10. The behavior of IRIS signals can now be modified by the configuration text file `${IRIS_CONFIG}/SIGNALS.DAT`. You can individually control whether signals produce popups, are spoken, or are considered critical. Contact SIGMET for information on the file format. There is also a documented example file in the template directory.

Setup Changes

1. Two new RCP serial formats (RCV05 and XMT05) are added to support information needed for redundant systems. The old formats "RCV04" and "XMT04" are retired because these are the same as "RCV02" and "XMT02".
2. You can now choose whether the INGEST process will reset the DSP and RCP devices upon startup. Previously, the DSP was never reset, and the RCP was always reset. After

upgrading IRIS, please be sure to set the two new INGEST setup questions according to your needs. Look in *Data Source Selection* and *Scanning Options* sections.