

## IRIS 7.30 Release Notes

These notes cover changes made in IRIS since release 7.29 of 29 March 2002. If you are upgrading from an earlier release, please read those notes also.

### Installation Changes

1. *HP Platforms Only:* We have switched to the newer 1.27 C++ compiler. This will require that you install a fairly current C++ runtime environment on your computer. This is done with the following patches on 10.20:

PHSS\_22354

PHSS\_17225

PHSS\_20607

PHSS\_21110

PHSS\_22867

PHCO\_14645

PHKL\_8693 (workstations) PHKL\_8694 (for servers)

PHKL\_15240 (workstations) PHKL\_15247 (for servers)

### Setup Changes

1. Setup has a new web section. This is not operational yet, but after upgrading you will get a setup error message due to the missing setup\_web.conf file. You need to enter the web section, make a change, then save to remove the error.
2. The antenna simulator device file is now specified in setup, and no longer in the IRIS\_ANTSIM environment variable.

### Bug Repairs

1. A bug was repaired in the selection of transmit phase sequences. If the IRIS DSP setups were configured for a Magnetron, then a random phase sequence would be requested from the RVP7, and the RVP7 would produce its "Could not generate the requested phase sequence" error. This bug only happens on 7.28 or 7.29 systems with RVP7 V24 PROMS, and a Magnetron transmitter.

On 7.28 and 7.29 systems you can fix the problem in the following ways:

- 1) In the RVP7 TTY setup, MC section, set question "PHOUT(0:7)" to "XMTPhase". This option is not available to customers who are using those lines for AFC.
  - 2) In IRIS **setup**, RVP section configure the system for: Transmitter type: Klystron, XMT has phase control: No
  - 3) Install a newer RVP7 code version. Fixed in 24.2.
2. RCP mode changing has been broken since 7.27.

3. *Dual polarization systems only:* Fixed sign of H+V calibration correction. On systems which support both H-only transmission, and H+V transmission the Zo is adjusted by the difference between the transmit loss in H-only mode and the loss in H+V mode. Since half the transmit power in H is lost in H+V mode, the sensitivity goes down, raising the Zo, it was lowering it instead.
4. The **real-time display** is improved to fix a display skip on startup.
5. **Zauto** was fixed to not get stuck in the wrong polarization on single pol radars. Bug introduced in 7.27.
6. There were significant improvements to passive IRIS mode:
  - 1) Fully turn off PRF checking, if requested.
  - 2) Deals better with more than 1 task matching the starting criteria.
  - 3) Deals better with interrupting a running task when another starts.
    - 3a) If running task matches starting criteria, keep.
    - 3b) Require elevation to settle before interrupting.
7. The DWELL product now allows SQI and TIME2 data inputs, and the COMP product now allows SQI inputs.
8. Starting in 7.28, the facility and message numbers in the message menu and the log file were truncated to a few characters. This is repaired.
9. Burst pulse hunting at the start of a task was broken. We recommend that you turn off this feature on all radars which do not need it. This is because it can initiate a burst hunt when the radiate is turned off, and waste a lot of time.
10. *HP Platforms only:* Fixed a bug in the install program which caused errors when doing a network upgrade. Bug goes back to at least 7.00.
11. In support of the larger dynamic range of the RVP8, **zauto** is changed to allow a power range of +15 to -100 dBm.
12. Fixed hidden polarization in **ascope**. It could be set wrong for fixed polarization systems. Bug introduced in 7.27.
13. The RAIN1 product was only running on SRI inputs, since 7.28. It is repaired to also work with CAPPI inputs again.
14. In the task configuration menu, the phase code sensitivity was not changing correctly when connecting to different iris servers.
15. Many improvements were made to the **bitex** program: Raised the maximum number of fields from 96 to 256. Added optional display of the summary I/O count on the main screen. Faults in sub-panels will now force the main panel to display as faulted also. Fixed a bug in deleting: you could delete a panel even if it was full of active display fields. All fields positions are now quantized to multiples of 5 pixels. Added an alias name to each unit. Therefore when configuring fields the BITE Address Unit will show the unit number and the alias name.

16. **Dspix** –nochat gparm command now shows RVP7 noise levels in dBm.

## New Features

1. Added a new output pipe called **IrisToArchive2** which converts an IRIS RAW product to the NEXRAD archive2 format. There is also a new **archive2view** program to help examining data in archive2 format.
2. There is a new utility program called **TapeInv722**. There was a data format change to the tape inventories in release 7.22, and this program converts the inventory files.
3. The byte swapping vcv\_structs functions now fully support converting to non-native byte swapping. In support of this, we have added a “–swap” option to the **change\_raw** program so you can convert to byte swapped format. The **change\_raw** program is now also included in the standard release.
4. **Bitex** and the rest of the antenna driver now support a new feature called “QBITE”. This stands for quantitative BITE, which means that numerical values of up to 32 bits can be transmitted and displayed in user friendly units in **bitex**. See the *IRIS Programmer’s Manual* for the serial data format.