



ENGINEERING BULLETIN

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Engineering Change: Confirm Firmware Version of Analog and Digital I/O Modules During Annual Inspection and Upgrade if Necessary

Regions Affected: All Regions

Systems Affected: All stations with Xpert, XDark, Xpert², and XDark² DCPs

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MSCS Approval: TBD

Background/History:



The Sutron Xpert DCPs require Analog and Digital I/O modules in order to communicate with analog and digital sensors. To ensure quality data from all sensors, the firmware on these I/O modules must be compatible with the standard suite of CO-OPS instrumentation. To this end CO-OPS rigorously tests new firmware versions and works in conjunction with Sutron to resolve identified issues. To ensure the best quality data, it is critical that current firmware be installed on the I/O modules in all Xpert DCPs.

Action:

Check the firmware version of all installed Analog and Digital I/O modules during each regularly scheduled site visit. To check the firmware version:

- 1) Connect to the DCP with Xterm
- 2) Go to the Setup tab and expand "I/O Modules"
- 3) Highlight the first module and click the Edit button
- 4) Make a note of the firmware version and serial number displayed on the I/O Module Properties screen
- 5) Click the Cancel button to exit the I/O Module Properties screen
- 6) Repeat steps 3-5 for the remaining I/O modules

After checking the I/O module firmware versions, power down the DCP and replace any I/O module that has firmware below v2.01 with an I/O module with firmware v2.01 or higher. Note that for newly installed Analog I/O modules it may be necessary to update the Module Number to properly reflect Analog 1 or Analog 2 via the I/O Module Properties screen. Contact CIL or SIL as appropriate if additional instructions are required.

Once all gauge work is complete, verify and/or update the I/O module firmware versions and serial numbers in the E-Site report as necessary.

If you have any questions or concerns regarding this Engineering Bulletin please contact the Measurement Systems Configuration Subcommittee at MSCS@noaa.gov.

References:

- [ROS 3.2.3.5 \(E1\) Standing Project Instructions for Coastal and Great Lakes Water Level Stations](#)
- [ROS 4.1.3.2 \(B1\) Sutron Xpert Operations and Maintenance Manual](#)
- [ROS 4.1.3.2 \(B4\) Sutron Xpert2 Operations and Maintenance Manual](#)
- [ROS 5.5.3.1 \(A\) E-Site Report – User's Guide](#)