ENGINEERING BULLETIN

Bulletin Number: 09-003 Date Created: August 24, 2009

Engineering Change: Update to Xpert Log File Sizes

System: Sutron Xpert Family of Data Collection Platforms

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Approved by MSCS on November 13, 2009

Background Information:

An evaluation of Xpert log file sizes was conducted to determine how large the external storage card logs need to be to accommodate a full year's worth of data without being overwritten. Increasing these logs to the determined sizes will ensure that complete datasets will be available for stations that fail to transmit but have continued to function normally otherwise. In such cases a simple storage card swap out during the Annual Inspection will provide a complete dataset.

Directive:

All Xpert Family DCPs shall be checked at all stations each year during annual maintenance to ensure log file sizes are as described below. If log files are sized differently from as specified below, a note shall be made in the site report and the log files resized as necessary. This directive supersedes all previous guidance on Xpert log file sizes, including Engineering Bulletin 08-001 issued in February 2008.

Note: Before increasing the size of any log files on the Flash Disk, ensure that the DCP has a standard 4MB or larger Flash Disk. If the DCP is an older 2MB model, do not increase the log file sizes on the Flash Disk. Instead, either replace the DCP (if a spare is available) or make a note in the site report to replace the DCP during the next regularly scheduled site visit.

Increasing a log file to a size that completely fills or overfills the Flash Disk will result in corruption of the Flash Disk and may require replacement of the hardware. At a minimum this will require reinstalling the operating system, log files, and setup files. For this reason, it is required that the current setup file and GOES Format file shall be copied off of the Flash Disk and stored in an alternate location, such as on a laptop, prior to resizing any log files.

If a user is uncertain how to determine the size of the Flash Disk, the current size of a log file, how much room remains on the Flash Disk, or how to safely resize log files, please contact either the Chesapeake or Seattle Instrument Lab for guidance.

Xpert 1

Primary DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
TSU1MIN.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes

Primary DCP Storage Card (Compact Flash Card)

SSP.log	250MB or	250,000,000 bytes
TSU1MIN.log	250MB or	250,000,000 bytes

Backup DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
15SECTSU.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes

Backup DCP Storage Card (Compact Flash Card)

SSP.log	250MB or	250,000,000 bytes
15SECTSU.log	250MB or	250,000,000 bytes

9210 DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes
TSU1MIN.log	1.2MB or	1,200,000 bytes (only on stations with 6 min water level)

9210 DCP Storage Card (Compact Flash Card)

SSP.log	250MB or	250,000,000 bytes
TSU1MIN.log	250MB or	250,000,000 bytes (only on stations with 6 min water level)

* Test logs are provided for the testing and adjustment of sensors (e.g., BEI, Paros, Sign). These logs are small and get overwritten frequently; they are not designed for long term storage of data but may be used for data feeds or downloaded to aid in troubleshooting a sensor. Not all DCPs have these logs.

Xpert 2

Primary DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
TSU1MIN.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes

Primary DCP Storage Card (SD Card)

SSP.log	80MB or	80,000,000 bytes
TSU1MIN.log	80MB or	80,000,000 bytes

Backup DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
15SECTSU.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes

Backup DCP Storage Card (SD Card)

SSP.log	80MB or	80,000,000 bytes
15SECTSU.log	80MB or	80,000,000 bytes

9210B DCP Flash Disk

SSP.log	1.2 MB or	1,200,000 bytes
System.log	65KB or	65,000 bytes
Test logs*	9KB or	9000 bytes
TSU1MIN.log	1.2 MB or	1,200,000 bytes (only on stations with 6 minute water level)

9210B DCP Storage Card (SD Card)

SSP.log	80MB or	80,000,000 bytes
TSU1MIN.log	80MB or	80,000,000 bytes (only on stations with 6 minute water level)

* Test logs are provided for the testing and adjustment of sensors (e.g., BEI, Paros, Sign). These logs are small and get overwritten frequently; they are not designed for long term storage of data but may be used for data feeds or downloaded to aid in troubleshooting a sensor. Not all DCPs have these logs.

Please note that due to improved compression techniques the 80 MB external storage card logs on the Xpert 2 series of DCPs holds an equivalent amount of data – approximately two year's worth – as the 250 MB logs on the Xpert 1 series of DCPs. CO-OPS current practice is to install a 2 GB external storage card on all Xpert DCPs.