



Changes to the SI SENDER driver

By Jerry Knisley

On a recent trip to a Hopper dredge, I made changes to the output of the SI Sender driver. These changes are based upon the needs of the dredge community and the USACE Dredge Quality Management (DQM) program. The SI Sender driver is common to all of the US Hopper Dredges running DREDGEPACK®. In this manner, we can adjust to the requirements of the DQM office without having to change individual drivers.

FILTER FOR BAD DATA

During my visit, they reported a series of data points that were all 0. This was caused by the changes we were making. Every time we started DREDGEPACK®, the system would send out a string of bad data with 0 in all of the fields because there had been no data read from the driver yet. Such strings could also be generated if the device was turned off for any reason. I placed a filter in the driver to prevent this and also to alert you to the possibility that the string being generated for the DQM computer is bad.

Initially, there is a “BAD STRING” message near the bottom of the device window. Once the structure of data is properly filled, the string is validated and the information passed on to the DQM computer, the “BAD STRING” message will be changed to a “GOOD STRING”. I know the messages are pretty mundane but they are easy to understand.

XML DATA TO USACE DQM

A second change to the driver had to do with the data sent to the DQM computer.

The driver has always sent out the same comma delimited text data to the DQM computer as it stores in the project INSPECTOR DATA folder.

On this recent trip, I was informed that the USACE DQM office would like the format changed to the original XML data so they can easily import the information if there is a loss of data in the DQM computer. I made this an additional file instead of changing the file the driver was already writing. More data is always better than no data. The new file has the same name as the original except that there is a “date”.xml.txt file in the same location.

If you have any questions or would like a copy of this file please let me know.