

## **WCM-2000 SOFTWARE CHANGES**

This document is intended to keep a record of major modifications made to the WCM-2000 software.

### *06/17/2019 wcm\_2\_0\_0.tar.gz version 2.0.0*

The polling frequency for input data has been increased to 10 times per second. Input data polling continues even if input parameters are overridden to keep old data from accumulating in the serial or network system buffers. Unless overridden, the latest received values are used for TWC/LWC calculations and are considered valid for up to 10 seconds after receipt.

TWC/LWC calculations are now done for element data at 20 times per second (the element data polling frequency) using the last valid or overridden input values (see above). Element data is no longer averaged for one second prior to calculation; the most recent element voltage and current values are used to calculate element power and TWC/LWC values. The resulting calculated values can be exported at up to 20 times per second by setting the expanded D1 export rate control. The values exported in D1 are the most recently calculated values and are not averaged. TWC/LWC values displayed on the screen are averaged over the display period.

### *10/04/2016 wcm.1.10.16.tar.gz version 1.10.16*

Added stress test capability to the SeaWcm app, this change is purely for SEA personnel to testing of the WCM-2000 system.

### *09/19/2016*

Versions will only change when software actually changes since all version were separated for each application as opposed to have one version for all applications.

### *06/03/16 - wcm.1.06.16.15.tar.gz version 1.06.16*

Improved TWC/LWC calculations, added fixture power correction to overall computation.

### *05/26/16*

Fix bug with input port for the setup tab. Removed code to trim frequencies in combo boxes. Fix input and output port collision to allow same serial port.

### *04/29/16*

Revisions to make sure the output sentences actually output at the selected rate. Remove data frequency combo box. Added baud rate combo boxes for output and input ports.

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*03/29/16*

Corrected and issue with the output rate for all SeaWcm sentences.

*02/08/16*

Added a new text widget (parameter) for the TWC/LWC average time in seconds.

*04/08/15*

Switched the input port data request from the input worker to the 0.5 s timer. When the data frequency was set for 1 hz there was clearly delay in the data, so a faster way to request the data was imperative. I used this technique in the Stormscope software and it worked pretty well there as well.

*10/20/11*

Modified reading data to ignore NOAA IWG1\_NAMES sentences.

*07/19/11*

Added a feature to make variable output fixed length. The default is variable length fields.

*07/14/10*

Fixed problem with output port name and protocol for SeaWcm. It didn't allow for the change to be made from the GUI. Also gave invalid port name/protocol.

*04/23/10*

Added support for NOAA IWG1 data sentences.

*04/20/10*

Fixed and improved auto start time. Fixed play/stop issue. Fixed expert mode issue.

*02/17/10*

Change SeaWcm input to be more forgiving on the input data. The data can be comma or space separated. Extra spaces are no problem between data fields.

*10/14/09*

Changed configuration 0 sentence to output once per second even if input data stops coming in. TWC/LWC tab will indicate in yellow no data.

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*09/09/09*

Reset the tab order for fields in Probe tab pane.

*08/08/09*

Changed received pressure from NOAA AOC data from "SP" to "PS" field.

*07/21/09*

Fixed data format parsing issue with NOAA AOC data.

*06/26/09*

Removed the ProbeOn and DeiceOn parameters from the Probe eprom. We used to keep track of the time up to the minute for ProbeOn and DeiceOn elements. We had to remove this since the eproms don't support the necessary number of write cycles for this feature. This only applied to the Probe eprom, since it was the only one written to on a regular basis.

*06/25/09*

The zero was only done when in the TWC/LWC tab was in the front. This was because the power computation only got done when necessary to display the data in this tab. Modified SeaWcm to zero no matter which tab the user has in front.

*06/24/09*

Modified SeaWcm input data to allow for zero parameter. Both old and new formats are supported.

*06/23/09*

Fix issue with 'netsend' and 'netrecv' so it would not leave these running after they were no longer being used.

*06/22/09*

SeaWcm check for input data every half a second as opposed to once per second. Checking the data once per second is not sufficient and it causes the SeaWcm to get behind in case the input data is sent slightly faster than once per second. SeaWcm now reads to flush data from input port every time the user clicks on play. This is to prevent buffered data to get SeaWcm behind on input from port.

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*06/18/09*

We had a client which required serial data to/from data system. They were not able to support network data connection to the WCM-2000. We made a major revision to the software to support this. Introduction of 'wcmread' to read data from socket/serial port. The 'wcmwrite' will do the write data to socket/serial port. The 'wcmrecord' will record data to a file. This last feature will be fully completed at a latter time. Modified SeaWcm interface to allow serial devices listed for input and output data ports. Also added file menu item to create and close a data file to write to.