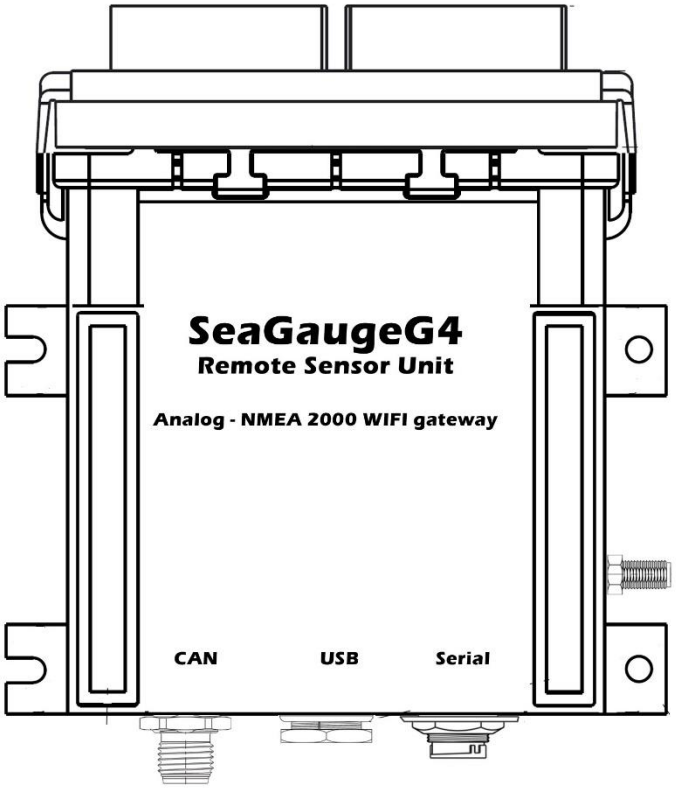
Chetco Digital Instruments, Inc.

Advanced Marine Instrumentation



SeaGaugeG4-WIFI gateway Quick Start Guide

View all SeaGaugeG4 App Notes at
AN_SS24103102_SeaGaugeG4AppNoteIndex.pdf

Step 1: Connect CAN BUS/NMEA2000 data via the M12-5 connector.

If using NMEA2000 network – proper bus power and terminators will be required.

For J1939 CAN bus use pins 2,3,4,5 as 12VDC power is still required for the interface as unit is not powered by CAN bus

USB mini connector is used for configurations and firmware updates via supplied vDash app.

Attach optional WIFI antenna to RMA port on side of unit if supplied.

Crimp supplied pins to signal wires and insert pins into appropriate MOLEX 150 connectors.

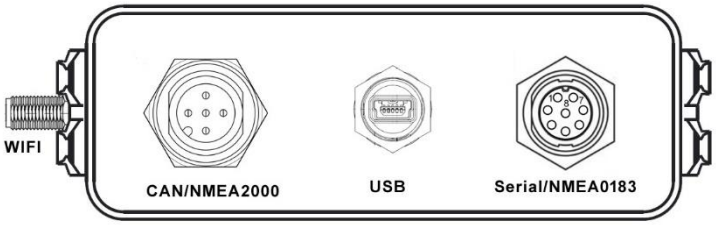
Unit 12VDC power and ground are supplied via Pins A9&A8 on the B plug (black).

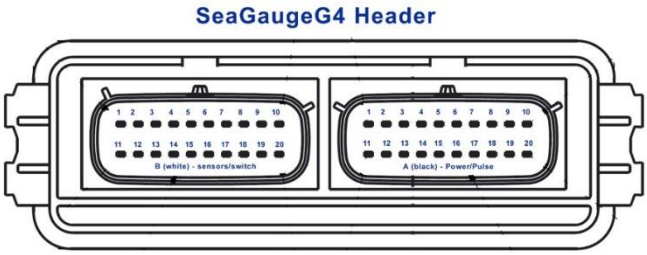
Pulse inputs (tach/fuel flow) are also supplied on the A plug

**** See App Note AN_SS24102601_ConfigPulseInputs.pdf for full details in setting pulse inputs ****

Analog Sensor data is supplied on the B plug (White)

**** See App Note AN_SS24092701_ConfigAnalogInputs.pdf for full details in setting analog inputs ****





B1 - NC	B11 - NC	A1 - SW5	A11 – SW4
B2 - NC	B12 - NC	A2 - SW7	A12 – SW6
B3 – SEN10 (SBOOST)	B13 – SEN11 (STRAN)	A3 - NC	A13 - NC
B4 – SEN04 (STEMP)	B14 – SEN05 (SOIL)	A4 – P1 (SRPM)	A14 - GND
B5 – SEN06 (SFUEL)	B15 – SEN07 (SBAT)	A5 – P0 (PRPM)	A15 - GND
B6 – SEN00 (PBAT)	B16 – SEN01 (PFUEL)	A6 – P2	A16 - GND
B7 – SEN02 (PTEMP)	B17 – SEN03 (POIL)	A7 – 5VOUT	A17 – 5VOUT
B8 – SEN08 (PBOOST)	B18 – SEN09 (PTRAN)	A8 - GND	A18 - GND
B9 – INC03	B19 – INC02	A9 – 12VIN	A19 = 12VIN
B10 – INC01	B20 – INC00	A10 - NC	A20 - NC

Step 2: SeaGaugeG4 WIFI is preconfigured to use Access Point (ADHOC).WIFI mode which is a separate stand-alone wireless network used for initial configuration.

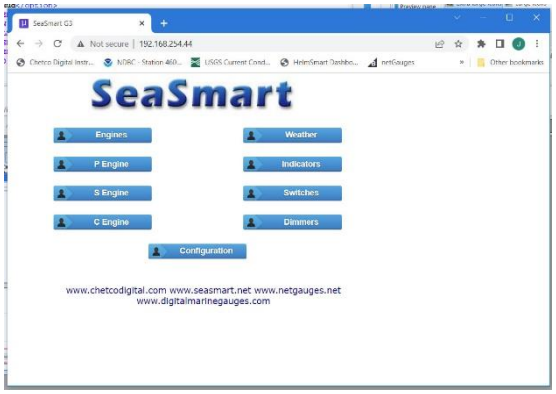
Scan for new WIFI networks and connect to the SSID SeaGaugeG4-xxxx using the default password on the label

Use the default url or IP address 192.168.4.1 printed on the gateway's label to access the HOME page

SeaGauge.com Analog to WIFI
Model: SGWIFIG4121823
MAC C0:DC:7E:C3:E7:98
Password: seasmartg3
Default Network: SeaGaugeG4-E798
Default URL: http://192.168.4.1
NMEA 2000 Certified
www.chetcodigital.com

Step 3: The adapter Web Page can be accessed directly by typing the default URL in the address bar of any browser. Javascript and HTML 5 must be enabled in the browser settings.

**** See App Note AN_SS23073001_SeaSmartAPmode.pdf for full details on enabling AP mode***



Step 4: The embedded web server will present a home page with links to a ENGINES and CONFIGURATION page

Several different predefined instrument clusters can be accessed by clicking on the dial faces.

Device configuration is accessed by clicking on the **ADAPTER SETUP** link which is located in the SEASMART logo at the top of the page

Step 5: The Config Page will show the current default network settings which are set to use Access Point (AP)

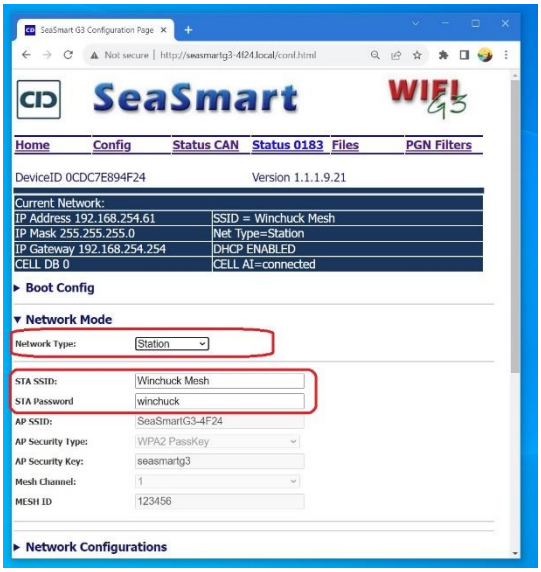
Step 6: If you wish to join another existing WIFI network – change the Network Type to STATION mode

Enter the SSID and password of the new network you wish to join.

The default is to use DHCP Client to auto assign the network address configurations from the local router

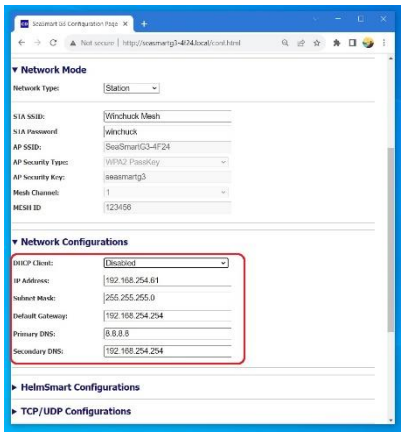
You will need to save settings reboot device for changes to take effect (see buttons at bottom of config page)

**** See App Note AN_SS230228_SeaSmartSTAmode.pdf for full details on setting up STATION (router based infrastructure) mode ***



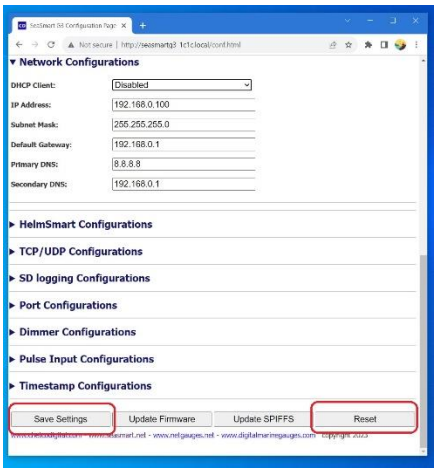
Step 7: If you wish to change to STATIC IP, disable the DHCP Client and enter your new desired static IP address and Router IP address for the Gateway.

Be sure your static IP is within the same network as your router IP or communications will be lost on reboot.



Step 8: After new addresses are entered, scroll down to the bottom and select SAVE.

Next select RESET to reboot device with new custom configurations.

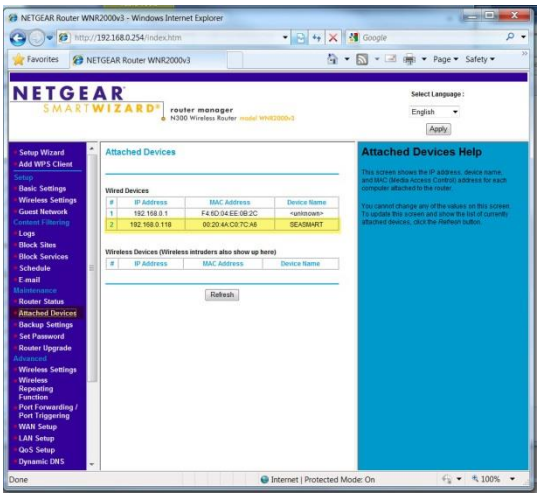


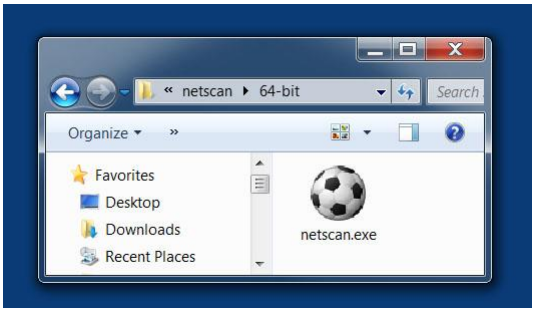
Step 9a

The default url is printed on the device label (ie http://SeaSmartG4-1C1C.local)

If you need to discover your device IP address because there is no suitable DNS service on your network, you can use your Router Configuration pages to view all attached devices. Note the MAC address on the SeaGaugeG3 label and match to the IP address shown by the router.

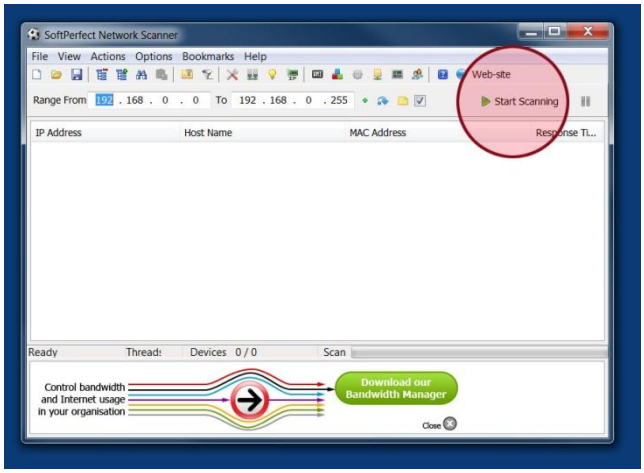
Another method to discover the IP address is by using a free network scanning utility like netScan from www.softperfect.com. Download the latest version or use the copy located in the SeaSmart/utilities folder on the vDash CD





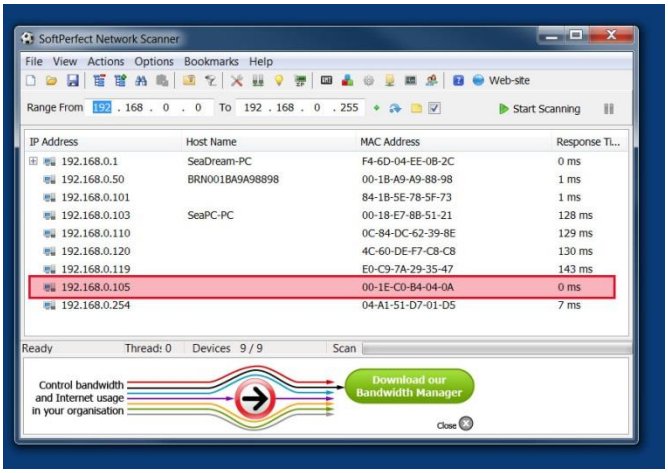
Step 9b: Type the Network Address of the attached network to scan. netScan will send a UDP broadcast to all devices on the selected network.

Ad Hoc Networks (WiFi) will use 192.168.4.0



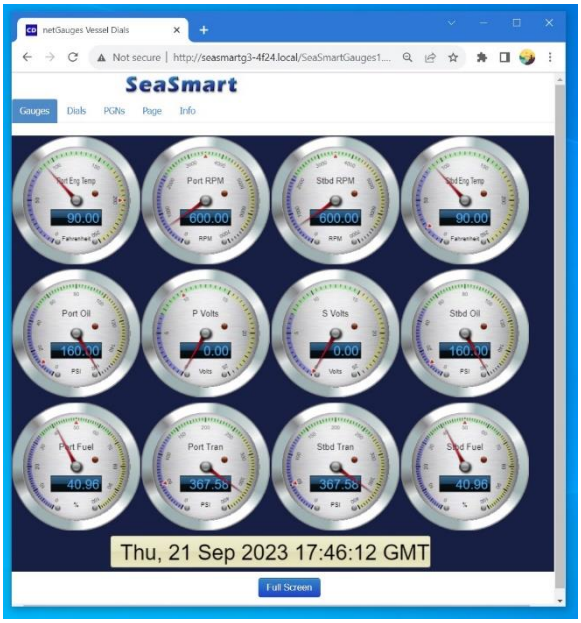
Step 9c: After scanning is complete, netScan will report the IP address of all discovered adapters.

The IP address can be used by any applications or Browsers to access bus data via TCP/UDP

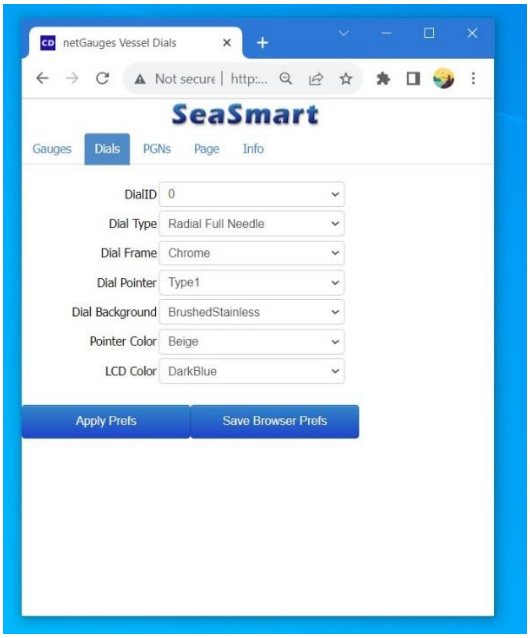


Step 10: To use a Browser interface to access embedded Web pages, simply type in the obtained IP address into the address bar on the Browser.

A Home Web page will load with live data from the CAN Bus/NMEA 0183 in the data boxes.



Step 11: The data box gauge styles can be individually modified using the DIALS tab

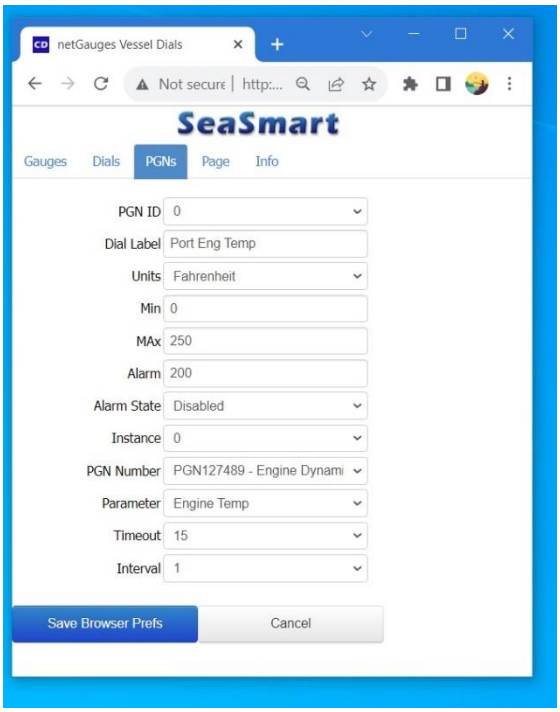


Step 12: The data source for each of the gauges can be selected by using the PGNs tab

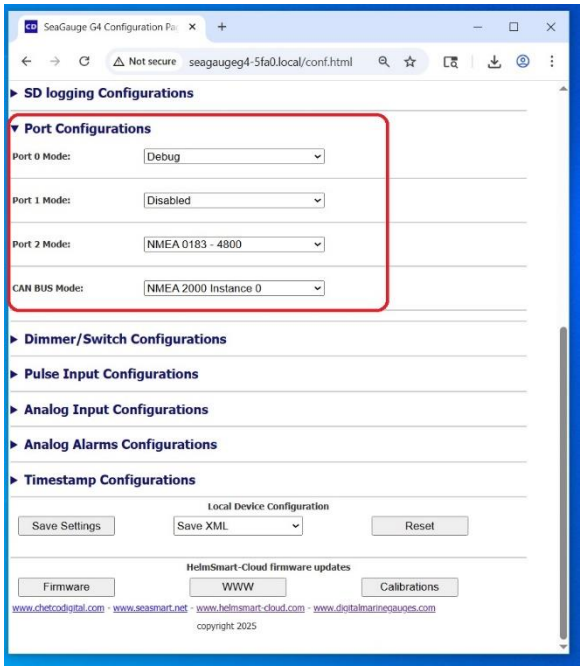
NMEA 2000, J1939, and NMEA 0183 data sources can be selected

Dial labels and units as well as display ranges (min/max) can also be configured

**** See App Note AN_SS230803_CustomWebConfig.pdf for full details on setting up customized dashboards ***



Step 13: Verify PORT 2 MODE is set to NMEA 0183 4800 for use with a connected WX sensor



CAN BUS MODE can be ENABLED if also connected to NMEA2000 or J1939

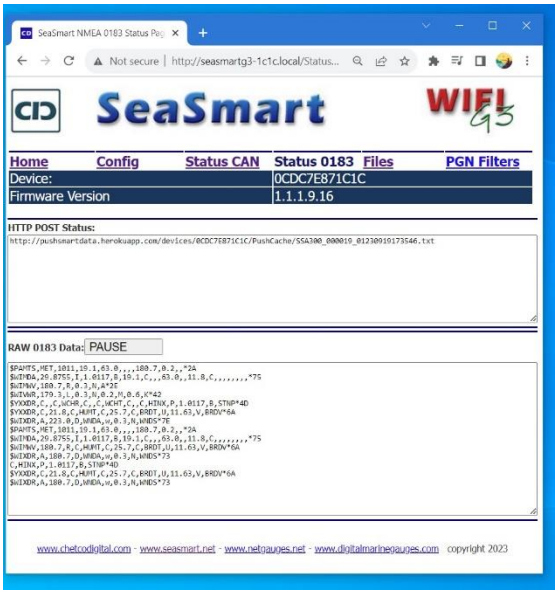
**** See App Note AN_SS25091301_G4ConfigSummary.pdf for full details on setting ports options ***

Step 14: The gateway can be configured to send out UDP BROADCAST of PUSHSMART protocol on the local network at selected intervals.

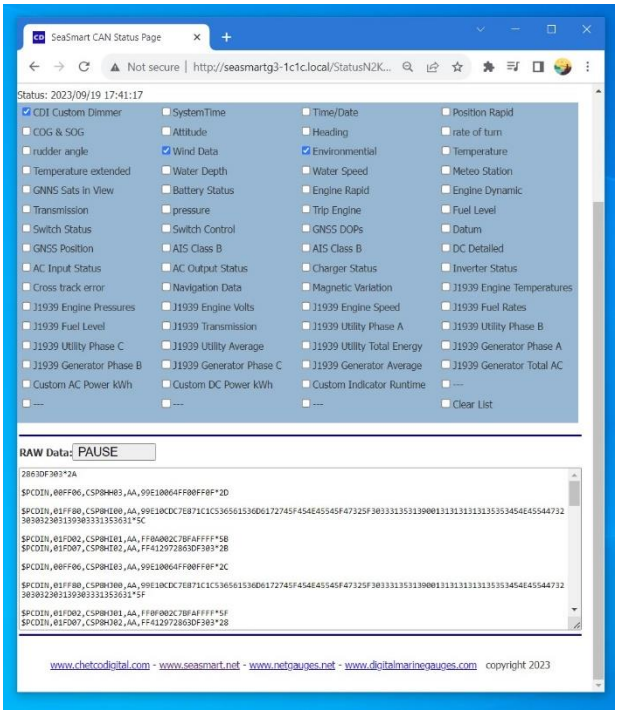
Several third-party apps are available to listen to these messages and display information on graphic dashboards

**** See App Note AN_SS25030301_NMEARemotet_iOS_Configuration.pdf for iOS app example ***

Step 15: The STATUS 0183 link at the top of the CONFIG page can be used to view live WX messages received on the serial port before being processed into PUSHSMART protocol



The STATUS CAN link at the top of the CONFIG page can be used to view live PUSHSMART protocol data used for data logging and posting to HelmSmart Cloud services



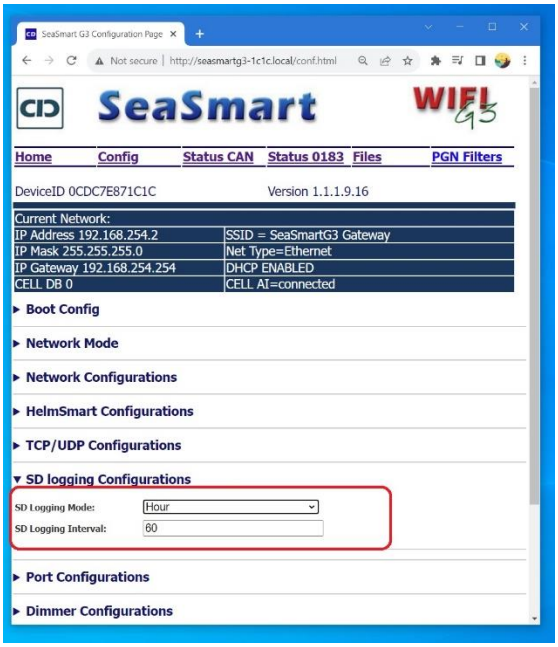
Step 16: PUSHSMATRT protocol data can be logged to local SD card memory at configured intervals.

The LOGGING MODE specifies how often new log files are created and the file name format.

If, for example, HOUR is selected – a new log file is created every hour but new data added every 60 seconds.

The file name is based on the logging format

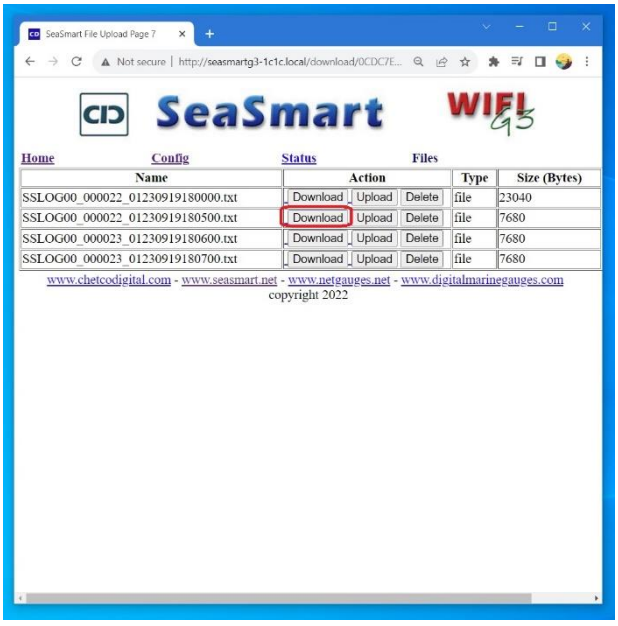
SSLOG00_000022_01230919180000.txt indicates new file every hour



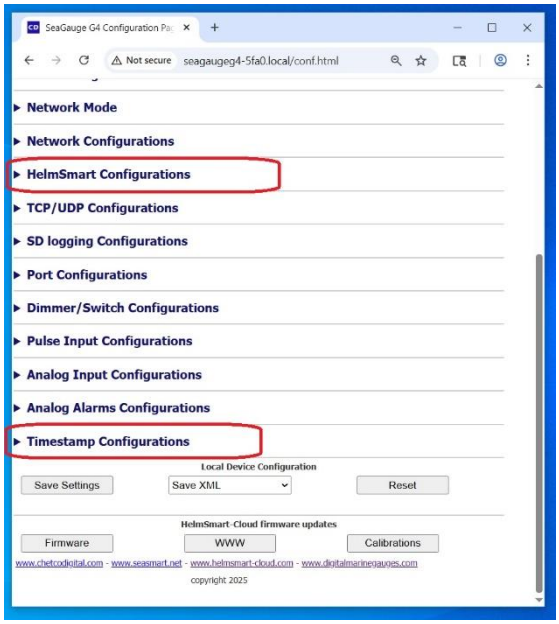
Log files can be viewed using the FILES link at the top of the CONFIG page and then downloaded from the SD card or uploaded to the HelmSmart Cloud service.

Selecting DOWNLOAD will copy file from SD card to local Web Browser DOWNLOADS folder

Selecting UPLOAD will post file to HelmSmart Cloud Service if a valid internet connection is available on the local network.



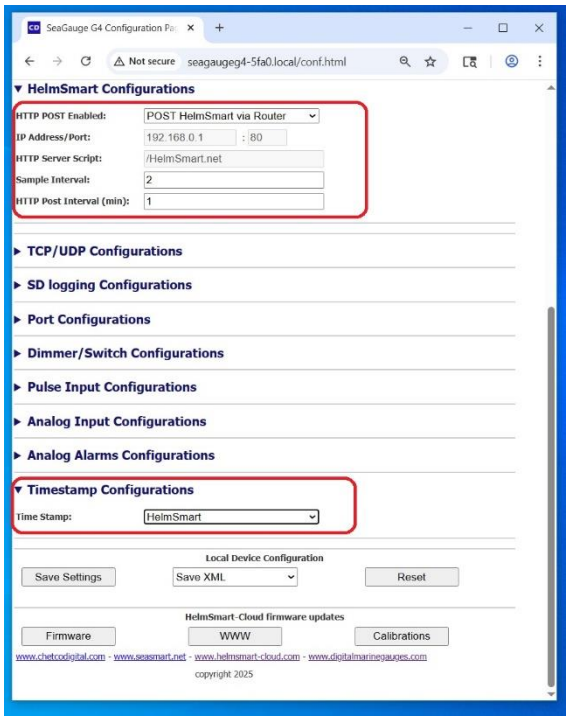
Step 17: To enable posting data to directly to HelmSmart Cloud service, access the config page by click on the SeaSmart logo at the top of any page.



**** See App Note AN_SSG325091302_EnablePushSmart.pdf for full details on enabling PushSmart services***

Select the POST HELMSMART option on the HTTP POST Enabled section and set the Post interval in minutes.

Leave the SAMPLE INTERVAL set to 2 for the WXSERIAL port. The gateway will collect weather data at 1 second intervals, buffer internally, and then post to HELMSMART at 1 minute intervals using the configured internet gateway



Be sure Time Stamp Source is NTP or HelmSmart

Then select Save Settings and reboot

Step 18: You can check the live status from your HELMSMART account by using the netView link which will show received data.

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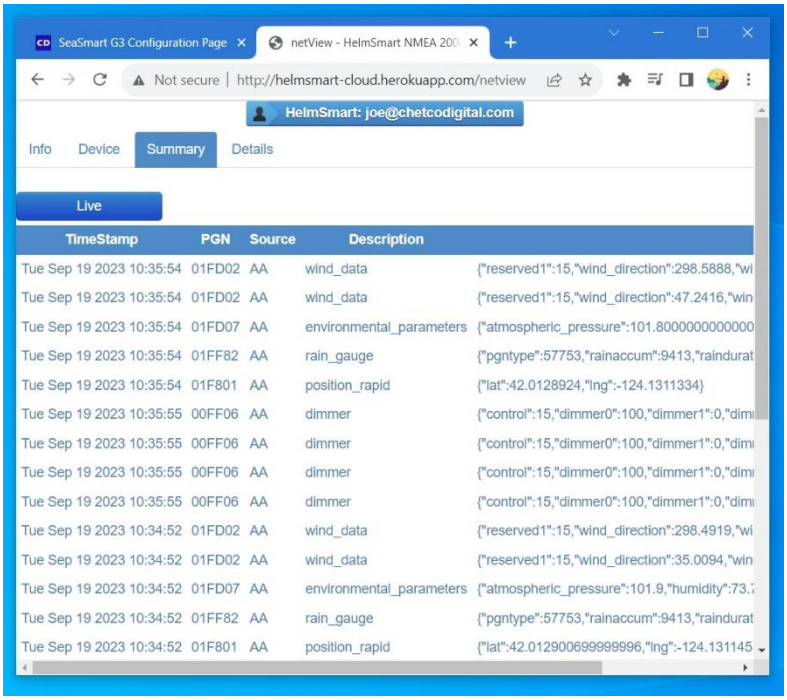

Step 19: Navigate to your HelmSmart netGauges page to view live engine or weather data uploaded by the gateway

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