

Site Sentinel® and Metermade® Firmware - RELEASE NOTES

Current Production Firmware Version:

- FW 3.272
- All Site Sentinel and Metermade Variants.
- All devices are currently shipped with this version of firmware.

Version History:

- Last Updated 2/6/2017 for FW 3.272

Configurator Version:

- Configurator changes completed to support new fixes and new functionality described below.
- Users of this firmware are required to use the latest Configurator Software version:
 - “Configurator M V3.26.16”.
- This new Configurator is backward compatible with previous firmware versions.

Current new fixes and new functionality for FW3.272:

Product Update Area:	Update Description:	Notes:
FTP Upstream Communications Driver	Bug Fix	Corrected timing issue when time syncing with Cellular Network Time. Certain scenarios (when device connected to programming software or not connected to programming software or device sleep mode state) could cause Cellular Network FTP Time sync to fail.
System I/O – Voltage Measurement	Bug Fix	Corrected Battery Voltage (on DNP3 object or FTP object) for Site Sentinel P1-001-EA devices.
System I/O – Voltage Measurement	Bug Fix	Corrected Battery Voltage (on DNP3 object or FTP object) for Site Sentinel P2-001-EA devices.

Previous new fixes and new functionality prior to FW3.272:

Product Update Area:	Update Description:	Notes:
Configurator M+ Device Configuration Software	New Feature / Bug Fix	Various upgrades to Configurator M+ Device configuration software to support the new features and bug fixes as detailed below.
DNP3 Upstream Communications Driver	New Feature	Added TCP DNP listen now uses “DNP Host TCP Port” parameter to allow other TCP ports to be used other than just 20000. Previously, in “Polled” mode, only port 20000 could be used.
DNP3 Upstream Communications Driver	New Feature	Added the ability to complete Remote Read/ Write of Master IP Address Field 1,2, and 3 to allow remote re-configuration of Target Master IP addresses in the circumstance of Upstream IP / IT Network changes. <ul style="list-style-type: none"> • DNP3 Remote Read / Write Address 50206 – Read / Write First Master IP address • DNP3 Remote Read / Write Address 50208 – Read / Write Second Master IP address • DNP3 Remote Read / Write Address 50210 – Read / Write Third Master IP address
DNP3 Upstream	New Feature	Added user selectable tick box option to run DNP3 Slave communications in DNP level 1

Communications Driver		compliant mode. NOTE: Ticking this option will disable Analogue Floating Point Class 0 and Class 1 Event Data in DNP driver.
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<p align="center">Modbus RTU Master Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Modbus Joining Codes:</p> <ul style="list-style-type: none"> JC23 = delay in Seconds 0 to 255 “Modbus Reg” is where you define the number of seconds to pause. <p>Designed for use in the following circumstances:</p> <ul style="list-style-type: none"> Where you need to provide a period of time for the slave device to wake up and become ready / stable for reading, such as sensor warmup / self-test etc.... Where you want to provide inter-message delay between multiple Modbus slave devices. Where you need to interface to Modbus devices that are slow.
<p align="center">Modbus RTU Master Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Modbus Joining Code:</p> <ul style="list-style-type: none"> JC22 = DUMMY Read with NO reply 1 MB Registers as DNP 32 bit Signed <p>Used if you need to send some dummy data to wake up a sleep mode Modbus device, such as a flowmeter.</p>
<p align="center">Modbus RTU Master Communications Driver</p>	<p align="center">Bug Fix</p>	<p>Corrected configuration issue when user selected 38,400 baud as the serial line rate.</p>
<p align="center">Modbus RTU Master Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Modbus Joining Code:</p> <ul style="list-style-type: none"> 21 = 2 x MB registers read as Multiple read as 2 x DNP 16bit Signed. <p>This was required to be added for “Turtle Tough Analysers” that do not allow single MB register reads.</p>

<p align="center">Modbus RTU Master Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Modbus Master Joining Codes to support "Reading / Writing" of DNP3 String variables from upstream DNP3 SCADA host to downstream Modbus Slave device.</p> <p>A limit of five (5) DNP3 String variables max. is currently in place.</p> <p>New Joining Codes:</p> <ul style="list-style-type: none"> • 15 = Read String point from MB register • 14 = Write String point to MB Register • 16 = Write String point to 2 x MB Register • 17 = Read String point from 2 x MB register • 18 = Write String point to Float MB Register • 19 = Read String point from Float MB register • 20 = Read String point from Multiple Registers <ul style="list-style-type: none"> • USER_String[0] DNP Address 50450 • USER_String[1] DNP Address 50451 • USER_String[2] DNP Address 50452 • USER_String[3] DNP Address 50453 • USER_String[4] DNP Address 50454
<p align="center">FTP Upstream Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Upstream Communications Protocol Option - FTP File Export as CSV file.</p> <p>Users now have the ability to utilise all native device functionality and choose between DNP3 or FTP upstream communications protocol via simple tick box selection.</p>
<p align="center">FTP Upstream Communications Driver</p>	<p align="center">New Feature</p>	<p>Added the ability to select between automatic cellular network time sync or manual time sync from PC when device used in FTP mode.</p>

<p align="center">FTP Upstream Communications Driver</p>	<p align="center">New Feature</p>	<p>Added new Device Status Session codes for when device is being used in FTP Upstream communications mode:</p> <p>NEW FTP Alarm Codes:</p> <ul style="list-style-type: none"> • 74 FTP Open connect error • 75 FTP Set file type error • 76 FTP File Get Error • 77 FTP File Send Error • 78 FTP File Close Send Error • 79 FTP Socket Connection Close Error
<p align="center">System I/O – Voltage Measurement</p>	<p align="center">Bug Fix</p>	<p>Corrected Battery Voltage display for Site Sentinel P2-001-EA devices.</p>
<p align="center">System I/O – Digital Inputs</p>	<p align="center">New Feature</p>	<p>Added new tick box option for each Digital Input to allow the user to select if a Class 1 Event is logged against a Digital input or not.</p> <p>Example, if a Digital Input is being used as a counter only, the leave unchecked so that class 1 events are not recorded on counter pulses.</p>
<p align="center">15 Minute “Fast” Unsolicited Function</p>	<p align="center">Bug Fix</p>	<p>Device would not stay in deep sleep mode if analog limit alarm breached and 15 Minute fast unsolicited tick box option is checked.</p>
<p align="center">Instantaneous Flow Calculation</p>	<p align="center">New Feature</p>	<p>In Previous versions of firmware, the writing of the class 1 event log from the result of the Instantaneous Flow Calculation was controlled by setting a dead band value.</p> <p>The Class 1 event log entry is now logged every “x” minutes that the calculation is set to run by the user, regardless if the value has changed or not.</p> <p>This has been done for users that require continuous time-sliced data samples, regardless if the value has changed or not.</p>
<p align="center">Real Time Clock (RTC)</p>	<p align="center">New Feature</p>	<p>After a reboot or power cycle, the internal RTC now starts at a pre-defined time of:</p> <ul style="list-style-type: none"> • 1/1/2000 23:59:00

<p>Device Unique ESN</p>	<p>New Feature</p>	<p>Added new function to enable reading of a unique electronic serial number (ESN) from inside the device.</p> <p>This provides the ability to remotely track devices if they are moved from site to site and relabelled as different outstations on the SCADA Host.</p> <p>Also, allows field device replacement to be tracked on the SCADA Host.</p> <ul style="list-style-type: none"> • DNP string Address 50500 – Read ESN from Device
<p>GPS Position Sensing</p>	<p>New Feature</p>	<p>Added the following new DNP3 String Objects for use with GPS equipped product variants:</p> <ul style="list-style-type: none"> • DNP Address 50360 - GPS Position South String • DNP Address 50361 - GPS Position East String • DNP Address 50362 - GPS Position Altitude String
<p>ISP / SIM Card Authentication</p>	<p>New Feature</p>	<p>New Feature Added for "Credential-less" SIM Cards.</p> <p>Many M2M IPWAN Service Providers now supply SIM cards that are "Pre-authenticated" / locked with the upstream Radius server and therefore they do not require Username / Password to be configured in the Site Sentinel / Metermade device.</p> <p>Leaving the username field blank, the device assumes "credential-less SIM" and will grey-out the username and password fields and display the message "SIM Credentials".</p> <p>The product now supports the following ISP / SIM Authentication features:</p> <ul style="list-style-type: none"> • PAP or CHAP Authentication • With or without SIM Card username / Password Credentials. • Any user defined APN, such as telstra.extranet, m2mone.com.au etc... • Public internet such as Telstra.internet • SIM Card Pin Number if required.