

Weidmuller WI-Meshing Configuration Utility
ECN – Software Upgrade**June 10, 2013**
A-WR1304

Support for WI-I/O 9-U2 version 1.2.2 firmware and enhancements and bug fixes.

Products Affected:

Weidmuller WI Meshing Configuration Utility

Product Change Details:

This update adds support for WI-I/O 9-U2 firmware version 1.2.2, RTU Master Mappings, serial port TCP/IP port number configuration, thermocouple configuration and adds other bug fixes and enhancements.

Release Old: WI Meshing Configuration Utility 1.0.46 (1.1 MB)

Release New: WI Meshing Configuration Utility 1.2.0.51 (1.2MB)

Detail of Change:

Enhancements:

- WI-I/O 9-U2 Firmware Version 1.2.2 support.
 - WI-I/O 9-U2 RTU Master Mappings
 - Modbus RTU Slave operation
 - serial port TCP/IP port number configuration support.
 - Named mappings (already in previous release)
 - enable / disable flag for mappings (already in previous release)
- WI-I/O 9-U2 Login Time out, for Monitor Comms and IO Diagnostics increased to 5000ms and made INI configurable.

E.g. of INI file entry

[E2M]

LoginTimeout=2000

Known Issues:

- WI-I/O 9-U2 RS232/RS485 configuration items:
 - When switching Serial port modes on the configuration page, in a configuration just loaded from a module, some items may not be the same as those in the module. This means that you must check all serial configuration values are correct after changing serial port mode.

- The “Maximum Number of Connections” item has been removed from WI-I/O 9-U2 firmware version 1.2.2. This value should be set to 20 to match the default value used in the device.
- The software will not stop you from entering an invalid value for Connection timeout. Do not enter values greater than 1000 milliseconds.
- Modbus TCP mappings
 - The software will not stop you from entering more than 25 different server IP addresses. Make sure that no more than 25 different servers exist among all of the Modbus TCP mappings.
- When saving a device configuration to file, there will be a prompt to “select version”. This configures the features of the saved file to match the firmware version of the target device. Select version 1.2 unless you will be programming the configuration into a device with older firmware. In this case, select the version to match the device firmware.
- When loading configuration by USB the configuration software asks the user to disconnect the USB connection. This message may be ignored. There is no need to disconnect at this time.
- When connecting for diagnostic or to monitor communications, ignore the message “Connection does not appear to be to a known device type. Continue anyway? [model: WI-I/O-9-U2]” and click Yes.
- Error value for thermocouple cannot be programmed from the configuration software. If you need to use this feature, you must use the web-page interface of the device, and access the I/O configuration page.
- The software will allow up to 100 Modbus Master Commands. This is OK for latest version firmware (1.2.2).
- For earlier versions of firmware, the device will support no more than 30 commands. Take care to limit the number of Modbus Master Commands to 30 if you will be using devices with older firmware (older than 1.2.2).
- This version of configuration software only supports proprietary encryption mode (“Elpro 64 Bit”) of radio messages. When encryption is enabled in this version of the configuration software it sets the encryption parameters “Encryption” and “Encryption Key”. “Encryption” is set to the second option (i.e. option after “Disabled” which is “Elpro 64 Bit”) which can be seen on the “Radio” webpage of the WI-I/O 9-U2. The “Encryption Key” parameter is the same for all modes.

It is possible to use other encryption options while using the configuration software but note the following points:

1. Choose the best option to make your efforts worthwhile.
 - There is an extra 16 Byte overhead (longer radio messages/greater bandwidth usage) for choosing AES encryption over “Elpro 64 Bit” but no noticeable additional overhead for choosing “AES 256” over “AES 128” or “AES 192”, so if you choose to use AES encryption choose “AES 256”.
2. The “Radio” webpage for the WI-I/O 9-U2 will need to be used to change and activate your chosen encryption method each time the module is programmed by the configuration software as it will always reset the “Encryption” selection to “Elpro 64 Bit”.
3. Because the encryption method is changing each time the module is programmed (see above) radio communications will be lost until the correct encryption mode is re-established and over radio configuration will be disrupted. There are two possible solutions to this issue:
 - a. Always program modules via a direct connection (i.e. Ethernet or USB) and never program modules over the radio (via another WI-I/O 9-U2 – i.e. radio gateway)
 - b. When programming over the radio after programming the remote module, change the “Encryption” mode of the radio gateway module to “Elpro 64 Bit” to re-establish a connection, change the encryption mode of the remote module via the webpage and

then change the mode of radio gateway module back to the correct Encryption mode via its webpage.

Warning: This method will only work if there is a direct radio path between the radio gateway module and the remote module being configured and will temporarily disrupt any other services dependent on the radio gateway module.

- c. A future release will have support for all the encryption modes available on the “Radio” webpage of the WI/O 9-U2 with firmware versions greater than 1.1.5 and rectify this issue.
- The Encryption fields (“Encryption” and “Encryption Key”) are not loaded out of WI-I/O 9-U2 modules during the load configuration operation. These values are always programmed and are never loaded. If Encryption is in use you can see these values on the “Radio” webpages and in the configuration software on the main project page. (Select the first tree node for the project, on the left hand side to display the main project page.)

If an existing system is to be loaded into a new configuration software project take note of whether encryption is enable using the WI-I/O 9-U2 “Radio” webpages and set the Encryption settings accordingly in the new project database on the main project page.

This will be addressed in a future release of the configuration software.

Bug Fixes:

- Meshing Mapping Form:
 - Resolved bug which prevented read/write to 30000 series destination registers (Analogue Inputs range) [Bug 779]. Register Addresses from 30501 to 32500 have been enabled as outputs.
 - Force mapping registers are now restricted to 10501 to 12500 for the digital input range.
- Modbus TCP Mapping form:
 - The Modbus TCP Fail registers range has been extended to allow Analogue Outputs and General analogue registers.
- Modbus TCP' parameters page title changed to 'Modbus RTU Master'
- Fields not saved on immediate close bug fix:
 - Some pages did not save the last edited field if the next action was to close the application.
 - This has been fixed for all known instances as listed below.
 - RS232/RS485 serial pages
 - Modbus TCP page.
 - Ethernet settings page.
 - 'Notes' on project page.
- Display when Windows DPI settings is not set to the standard value of 96 DPI:
 - Resolved DPI issues for Program/Load configuration form
- Diagnostics Form:
 - Fixed the initial position so this form is positioned in the centre of the parent form when opened.

Upgrade Procedure:

- Backing up existing Project (Usually stored in the folder: Weidmuller\WI Meshing Configuration Utility\Projects)
- Uninstall Old version of Configuration Utility 1.0.0.46
- Install Version 1.2.0.51
- Open and backup existing projects in the new Utility after verifying no changes were made

If you have any questions, please feel free to contact Technical Support.

Technical Support: support@weidmuller.com/ support@weidmuller.ca