Triacta GATEWAY™
Flex Configuration Tool Guide

930-149-01-A.01
11/2018

TRIACTA
SUBMETERING BEYOND MEASURE

Safety Information

Hazard Categories and Special Symbols

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER
DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING
WARNING indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury

⚠ CAUTION
CAUTION indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury.

NOTICE
NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

Please note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Triacta for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Notices

FCC Part 15 Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment

Industry Canada Class B Emission Compliance Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

This equipment does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian ICES-003.

Avis de conformité aux normes d'Industrie Canada. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC and Industry Canada notices for Wi-Fi 2.4GHz

IC ID: 23814-GATEWAY
FCC ID: SCR-GATEWAY

UL (Underwriters Laboratories)

UL (Underwriters Laboratories) are listed by the American Federal Occupational Safety and Health Administration (OSHA) under NRTL (Nationally Recognized Testing Laboratory) program. They are also accredited by Standards Council of Canada. This equipment complies with UL 61010-1 Third Edition and CSA C22.2 No. 61010-1-12.

IC ID:23814-GATEWAY
FCC ID:SCR-GATEWAY
MODEL: GATEWAY

Input Power:
120-277V 60Hz, 125mA

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and
(2)This device must accept any interference received, including interference that may cause undesired operation.
CAN ICES-3 (B)/NMB-3 (B)

Disconnect All AC Power before opening
Deconnecter le courant avant d'ouvrir

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Measuring Equipment
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The regulatory product label covers any combination of measurement modules used on this product. This can also include the same module type in all slots.
.

Example:

G1834 =
Slot 1 = 100mA Measurement Module
Slot 2 = 80mA Measurement Module
Slot 3 = 333mV Measurement Module
Slot 4 = Pulse Counter Measurement module

Note: Measurement modules can appear in any order and can be any mix of types, including one type only.

Table of Contents

Introduction

This guide describes how to use the Triacta GATEWAY Flex Configuration Tool to configure a Triacta GATEWAY.

This documentation is intended for those responsible for configuring and commissioning the Triacta GATEWAY.

Scope

This Guide is for the programing the Triacta GATEWAY.

Refer to the Triacta GATEWAY Installation Guide and the Triacta GATEWAY Configuration and Operations Guide for device installation, and operation of the Triacta GATEWAY.

Software Installation

There is no software installation required. Just copy the Triacta GATEWAY Flex Configuration Tool folder from the Field Trial sharing drive to any directory on your Windows PC and run the G5Config.exe file

Opening Window

The following window will appear when first opening the tool:

Finding and Connecting to a Triacta GATEWAY

Before searching for and connecting to a Triacta GATEWAY, enter the required Meter Credentials for accessing Triacta GATEWAY devices. By default both the user name and password for all Triacta GATEWAY devices are "utility".

To connect to and begin programming a Triacta GATEWAY, click on the "Unit" tab and select "Find"
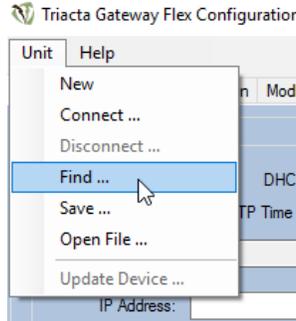
This opens the following "Unit Discovery" Window:
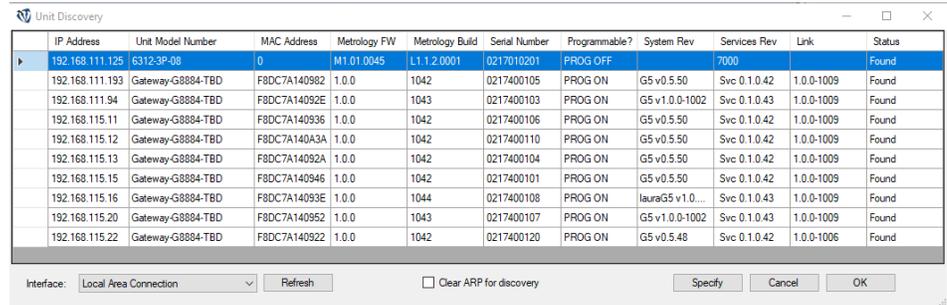
"Find" uses UDP subnet broadcast to find all of the Triacta GATEWAY devices on the same subnet as the computer.

The "Specify" button can be used to extend the search to different subnets and/or specific IP addresses or Host names.
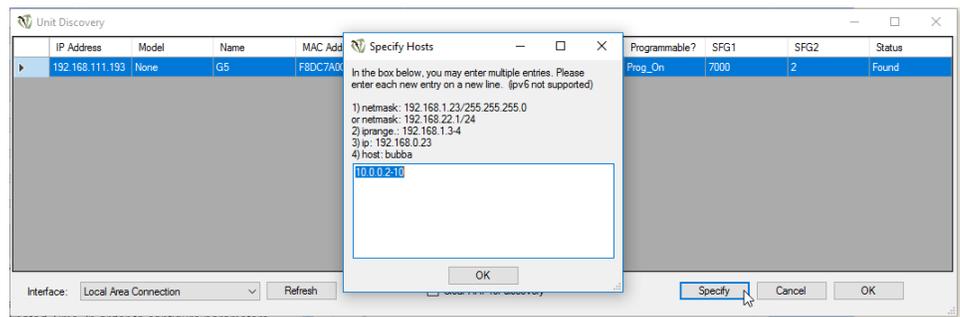
The "Refresh" button will initiate another Find.

Once the desired meter has been discovered, select the meter from the "Unit Discovery" window list and click on "OK". This will upload the existing configuration from the meter into the Triacta GATEWAY Flex Configuration Tool.

Sending the Configuration to a Triacta GATEWAY

Once any configuration changes have been completed, as described in the rest of this guide, click on the "Unit" tab and select "Update Device" to send the new Triacta GATEWAY configuration to the Triacta GATEWAY.

The "Update Device" function will automatically save a JSON configuration file to the C:\Users\username\Documents\Triacta folder on your computer. The filename contains the Serial Number and MAC address of the device and the date/time.

Use the "Save …" function to save the configuration file to a different folder and/or to change the filename.

General Tab

The following window shows a loaded configuration from a sample meter:

The General Tab is divided up into the following four sections:

General Properties
Metrology Parameters
Protocol Configuration and
Reporting

General Properties

Unit Information and Part Number & Module Information

The following two blocks in the General Properties section indicate the hardware and firmware version configuration information of the main metering unit and the installed measurement modules.

The displayed Metrology state is set to either **LOCKED** or **PROGRAMMABLE** by the Meter Lock switch on the Triacta GATEWAY.

If the state is set to **LOCKED** all of the metrology related parameters are locked and cannot be changed.

Part Numbers & Module Information

Motherboard Serial Number:	0217400103	Motherboard Part Number:	500-042-01
Module 1 Part Number:	500-044-02-B.00 Fw:0.00.0000	Module 2 Part Number:	500-044-02-B.00
Module 1 Serial Number:	0217400304 MFG: 27-Feb-2018	Module 2 Serial Number:	0217400313 MFG: 27-Feb-2018
Module 3 Part Number:	500-044-02-B.00	Module 4 Part Number:	500-043-01-B.00 Fw:0.00.0000
Module 3 Serial Number:	0217400322	Module 4 Serial Number:	0117400204 MFG: 27-Feb-2018

Network

This block controls the basic IP address configuration of the Triacta GATEWAY for access to local IP networks.

Network

DHCP Enabled:	☑
MAC Addresses:	F8DC7A14093E
Static IP Address:	
Static Gateway:	
Static Subnet Mask:	
Default DNS1:	
Default DNS2:	

Enabling DHCP in the Triacta GATEWAY configures the device to request an IP address to be assigned to it by a DHCP service in the IP network.

If DHCP is disabled the Static IP address, Gateway and Subnet Mask and DNS addresses must be configured in the Triacta GATEWAY as assigned by the IT admin.

Comms Configuration

This block is for future optional communications modules for either a phone line interface for meter data reporting, or for a serial RTU Modbus interface.

Metrology Parameters

The Metrology Parameters section controls basic general metering parameters and which metering units are recorded and reported by the Triacta GATEWAY.

Time Tab

The Time tab allows the user to select a time zone that will be used by this tool to calculate a time offset from 00:00 hours Universal Coordinated Time (UTC). This allows the user to set a "local time" for Demand Reset Time in the tool instead of having to manually work out the UTC offset.

Note that all time information in the Triacta GATEWAY is intended to be recorded and reported in UTC. The selected time zone information is only used by the Triacta GATEWAY Flex Configuration Tool and is not used by the Triacta GATEWAY device.

Warning: The selected time zones are all in Standard Time. Daylight Savings is not supported. When Daylight Savings Time is in effect, the selected action will occur one hour later than programmed.
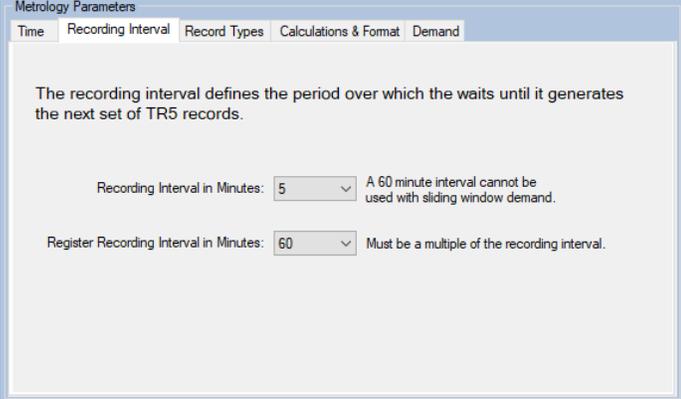
Recording Interval Tab

The Recording Interval tab configures two different recording time intervals.

The "**Recording Interval in Minutes**" defines the time interval for which each of the selected Interval Records are calculated and recorded for TR5 reporting.

The "**Recording Interval in Minutes**" also defines the size of each subinterval for Sliding Window Demand calculations (if selected).

The "**Register Recording Interval in Minutes**" defines the time interval for when the value of each of the selected Register Records (LUM - Legal Units of Measurement) are recorded for TR5 reporting.

Record Types Tab

The Record Types tab allows the user to define the metering data parameters that are to be logged on each recording interval for reporting to an external server as per the Reporting Section.
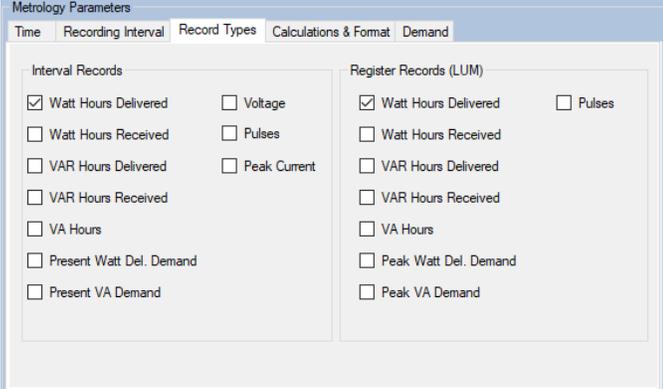
Interval records and register records can be turned on or off independently of each other.

Interval Record Types	Description of data reported in TR5/TR3 file
Watt Hours Delivered	Active (Real) Energy delivered to the load for each recording interval.
Watt Hours Received	Active (Real) Energy received from the load for each recording interval.
VAR Hours Delivered	Reactive (Inductive) Energy delivered to the load for each recording interval, and for the total register time measured since the meter was commissioned.
VAR Hours Received	Reactive (Capacitive) Energy received from the load for each recording interval.
VA Hours	Apparent Energy delivered to the load for each recording interval.
Present Watt Del. Demand	Watt Delivered demand calculated for the previous Demand time interval.
Present VA Demand	VA demand calculated for the previous Demand time interval.
Voltage	Average Voltage measured for each recording interval. Reported for each meter element.
Pulses	Pulse count/s for each recording interval.
Peak Current	Highest current measured for each recording interval. Reported for each meter element.

Register Record (LUM) Types	Description of data reported in TR5/TR3 file
Watt Hours Delivered	Total Active (Real) Energy delivered to the load for the total time measured since the meter was commissioned.
Watt Hours Received	Active (Real) Energy received from the load for the total register time measured since the meter was commissioned.
VAR Hours Delivered	Reactive (Inductive) Energy delivered to the load for the total register time measured since the meter was commissioned.
VAR Hours Received	Reactive (Capacitive) Energy received from the load for the total register time measured since the meter was commissioned.
VA Hours	Apparent Energy delivered to the load for the total register time measured since the meter was commissioned.
Peak Watt Del. Demand	Highest demand measured over any Demand time interval and the timestamp it occurred, since either the meter was commissioned or the most recent Peak Demand Reset.
Peak VA Demand	Coincident VA demand measured during the same time interval as the Peak Watt Del. Demand and the timestamp when the Peak Watt Del. Demand occurred,
Pulses	Pulse count/s for the total register time measured since the meter was commissioned.

Note: The following data types have dependencies with other data types:
1.	Peak Kw Del. Demand: requires Present Kw Del. Demand
2.	Peak KVA Del. Demand: requires Present Kw Del. Demand, Peak Kw Del. Demand, and Present KVA Del. Demand

When turning ON a data type with dependencies, be sure to turn ON all of the related dependencies.

Calculations & Format Tab

The Calculations & Format tab allows the user to configure the Power Factor calculations and the PT Ratios.

The Power Factor configuration parameters control the type of power factor calculation (Arithmetic or Vector (default)), and the display format for leading vs. lagging power factor in the front panel display (IEEE or IEC (default)).

Always use Vector calculation unless there is a requirement to match the Power Factor calculation against other equipment which uses the Arithmetic method.

In IEEE format, the sign (+ or -) indicates leading (+) or lagging (-) power. The direction of active power is not indicated.

In IEC format, the sign (+ or -) indicates the direction of active power. "Lead" or "Lag" indicates capacitive or inductive power.

The two separate PT (Potential Transformer) ratios (1 and 2) specify the internal multiplier to be used to calculate the correct load voltage for each of the two respective sense voltage inputs.

The two sense voltage inputs will accept panel voltages from 120V to 277V RMS L-N. External PTs must be used if the panel voltage is greater than 277V and the PT ratios must not cause the sense voltage to be lower than 120V RMS.

When there are no external PTs, use a PT Ratio of 1.

Demand Tab

The Demand tab allows the user to configure the demand interval for peak and present demand calculations and reporting, and to control the Peak Demand Reset function.

In the "Demand Interval Setup" section the "Demand Interval in Minutes" specifies the number of minutes to be used for each Demand calculation. The Demand calculation can be configured as either Block Demand or Sliding Window Demand.

If Block Demand is chosen, the size of the Demand Interval is selected from the pulldown down options in the "Demand Interval in Minutes". The presented options are multiples of the Recording Interval as specified in the Recording Interval tab.

If Sliding Window Demand is chosen, the size of the Demand Interval is programmed by selecting the number of sub-intervals. The size of each sub-interval is specified by the Recording Interval as programmed in the Recording Interval tab.

In the Automatic Demand Reset section, the Automatic Demand Reset Day and Time are used to schedule an automatic monthly Peak Demand Reset at the specified time of day and day of month.

If the selected Demand reset day is greater than the correct last day of the current month the peak demand will be reset on the first day of the following month. A value of zero disables monthly demand reset.

The Demand reset time is relative to the Time Zone selected in the Time tab.

The Triacta GATEWAY has a manual Peak Demand Reset function that will cause an immediate Peak Demand reset on all meter points. It is initiated by entering a 4 digit Demand Reset Code from the front panel display. If the Manual Demand Reset Enabled flag is unchecked, the manual Demand Reset function on the Triacta GATEWAY is disabled and will not be visible on the front panel display.

When Manual Demand Reset is enabled, the Manual demand reset code can be viewed and changed in this section.

Protocols Configuration

The Protocols Configuration section allows the user to configure the BACnet and Modbus protocol interfaces.

Modbus & RTU Tab

Modbus TCP/IP is always enabled in this release.

Modbus RTU and the rest of the functions in this tab are not supported in this release of the Triacta GATEWAY.

BACnet Tab

The BACnet IP protocol is not supported in the Triacta GATEWAY for this release.

Reporting

The Triacta GATEWAY can be configured to send meter measurement data and/or event logging information to one or more different FTP data servers. For example, meter data can be sent to one location for data processing and event logs can be sent to another location for meter management and troubleshooting. Meter data can also be sent to one location daily for billing/revenue processing and sent hourly to another location for building management purposes.

One and only one FTP server must be designated as the "**Primary Site**". If there is only one FTP server configured, by default it will be the Primary Site. In addition to receiving meter data, he Primary Site FTP data server is the only server that can be used to download new configuration data into the Triacta GATEWAY.

The Triacta GATEWAY way can use either Passive FTP or Passive FTP over TLS (FTPS). If the selected FTP server is configured as the "Primary Site" then it must configured to use FTPS.

FTP reporting can be individually disabled per server. This could be used to temporarily turn on or off reporting to one location for debugging purposes or to disable all FTP reporting if the meter is exclusively connected to a BAS system via either Modbus or BACnet.

By default, one reporting configuration window will always be open as shown below.

Select the + or - buttons to add or delete extra Reporting servers. A new Reporting configuration window will be added or removed to the display for each Reporting server.

The Copy button can be used to add a new server with the exact same configuration.

The following configuration parameters are configured separately for each FTP server location:

Coordinates

This tab configures the following parameters for each FTP server as assigned by the FTP server admin.

Remote Host:	Reporting server IP address or Domain name
Method:	FTP or FTPS
Port:	Select the FTP or FTPS Control port that the selected server is listening on. Port 21 is the standard default port for both FTP and FTPS.
User Name:	
Password:	
Data Path:	Directory name where the meter measurement data and/or event logs are sent to
Upload Path:	Directory name where configuration data or a new firmware load can be retrieved from (Only visible in the Primary Reporting Site.)

This tab also configures the reporting schedule from the Triacta GATEWAY to each target FTP server.

The Triacta GATEWAY can be configured to connect to an FTP server either daily, or after every selected period of minutes.

If **Daily** reporting is selected, a reporting window must be configured by selecting a Start and End Time. These times will be internally converted to UTC times as per the selected Reporting Time Zone in the Metrology Parameters/Time tab.

The Triacta GATEWAY will only try to connect to the FTP server inside the reporting window. If it is unable to connect to the FTP server, it can retry up to ten times.

If Period reporting is selected, the Triacta GATEWAY will make only one connection attempt to the FTP server in each reporting period.

Dial Up

The Dial Up tab is not supported in the Triacta GATEWAY for this release.

Record Filters

This tab selects what type of data is to be sent to each FTP server each time the meter reports. Different data can be sent to different FTP servers.
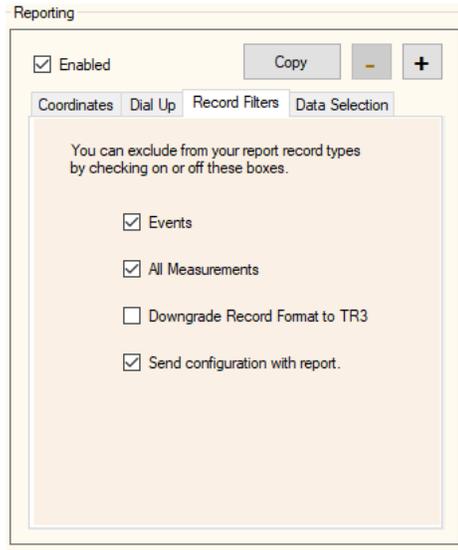
Events selects event logging data for meter management and debugging purposes.

All Measurements selects Meter interval and/or Register data as specified by the Recording Interval and Record Types tabs in the Metrology Parameters

The option to **Downgrade Record Format to TR3** allows meter data to be processed by existing TR3 data services. Note that TR3 data does not include Record or Config ID information.

Send Configuration with Report configures the meter to send the metrology configuration file every time the meter reports.

Data Selection

This tab allows the user to select a starting point for the next TR3/TR5 data report. The next FTP report will contain all of the data collected as of the specified start point. All following FTP reports will send new unsent data only.

The start point can be selected by any combination of the following:

Start date – Select a starting day/month/year from the pop down calendar.

TR5 Start Record – Select an initial Record ID value. Each TR5 record has a unique consecutive Record ID.

TR5 Start Config – Select a configuration ID. Each TR5 record has a Config ID. The Config ID is updated each time the Triacta GATEWAY configuration is changed.

Each separate selection criteria can be **ignored**. If all selection criteria are ignored, the report will start from the beginning of all available data. (Note that this can be a significant amount of data and may take an extended amount of time to report.)
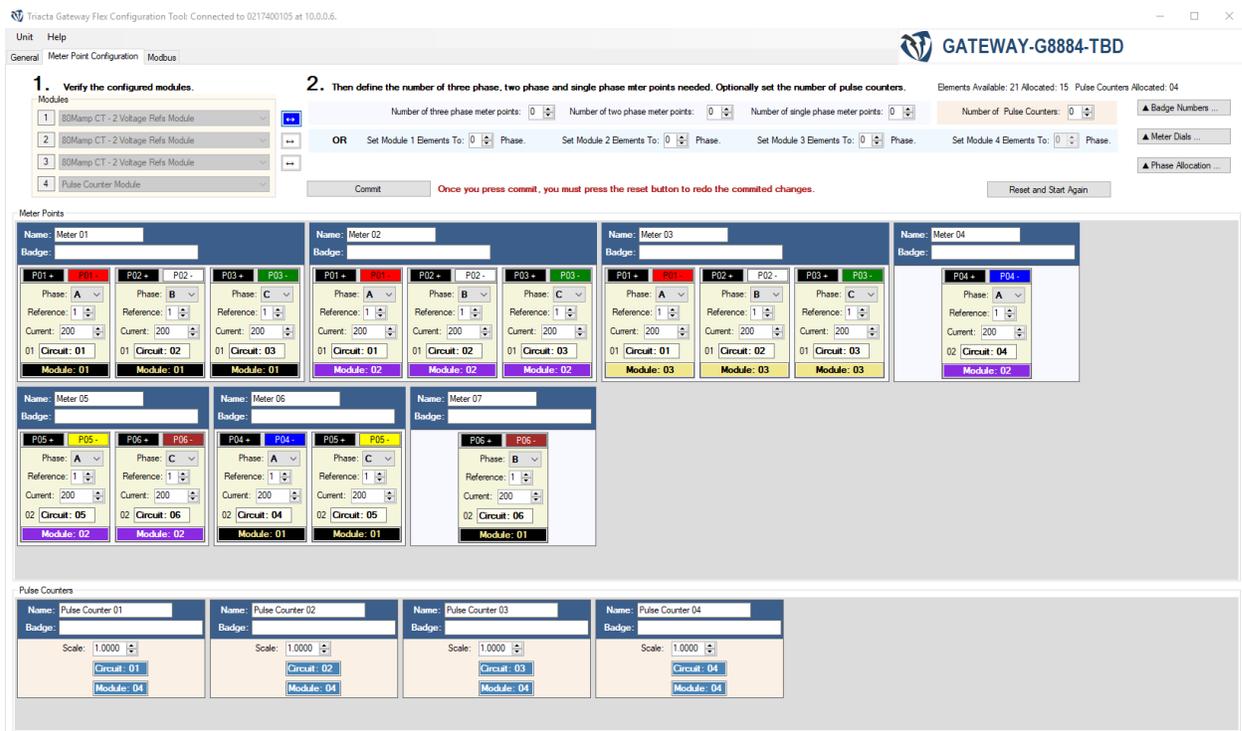
Meter Point Configuration Tab

One of the key features of the Triacta GATEWAY is the total flexibility of how the meter points and pulse inputs can be configured.

Any combination of up to four measurement modules can be installed in the Triacta GATEWAY Meter Head. There are three different CT Measurement module types (80ma, 100mA and 333mV) and one Pulse Input module.

With CT measurement modules, any combination of single phase, two phase and three phase meter points can be implemented in the same Triacta GATEWAY. Each input pair for each meter point can be assigned to any location on any module of the same type.

Below is a sample meter point configuration showing a Triacta GATEWAY with three 80mA CT measurement modules and one Pulse Counter Module installed. The meter points are configured on this Triacta GATEWAY as three 3-element meters, followed by one single-element meter, two 2-element meters, and another single-element meter. Four of the twelve available Pulse counters are also shown as configured:
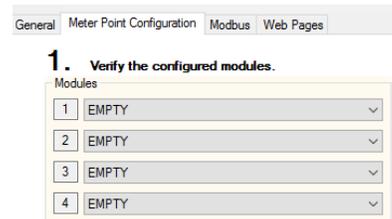
Step 1 – Verify the configured modules

When connected to a Triacta GATEWAY, the Triacta GATEWAY Configuration Tool will detect which hardware modules are installed and display them as shown.
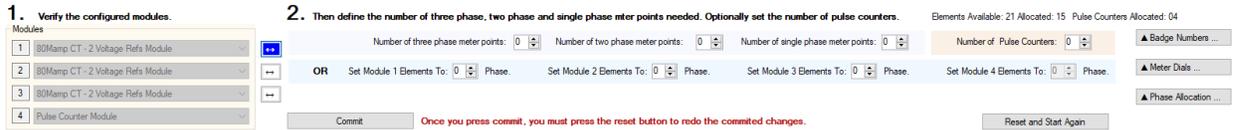

If the tool is not currently connected to a Triacta GATEWAY, all of the configured modules will show as empty. Select the number and type of desired modules, in order to create a configuration file that can be loaded into a Triacta GATEWAY at a later time.

# Step 2 – Configure the Meter Points and/or Pulse Counters

Based on the number of configured modules as discovered or programmed in step 1, the tool will allow the user to create as many meter points, and/or pulse counters that can be supported (each module supports up to 12 meter elements or pulse counters).

Configuring Meter Points

Each CT module can support up to four 3-element meters, six 2-element meters, twelve single element meters, or any combination that adds up to twelve elements (I.e. one 3-element, two 3-element, and three single element meters)

Before configuring any meter points, select the phase allocations to be used for the n-element meter type.

Selecting the Phase Allocation button ▲ Phase Allocation ... will open the following window:
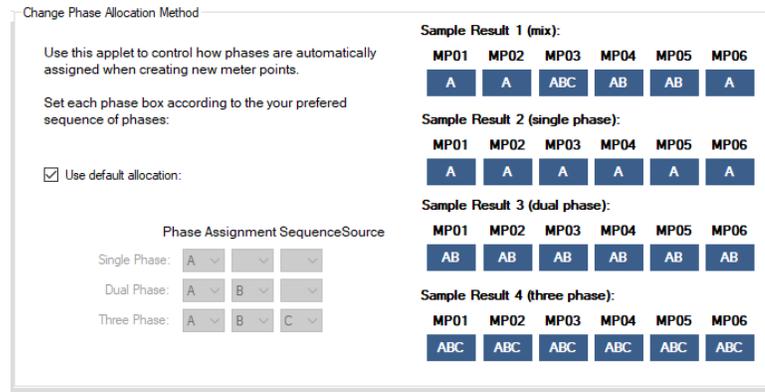
Uncheck **Use default allocation** to change the phase assignments to match the phasing of the voltage source to which the meter points will be referenced to.

For example, if the panel is 120/208V 3-phase then all three phases A, B and C should be used for all three meter types. The phase allocation should be as follows:

There are two ways that meter points can be assigned in the Triacta GATEWAY.

1) Select the module to start creating meter points on (as per the following diagram) and select the total number of each type of meter point required, then then press "Commit".
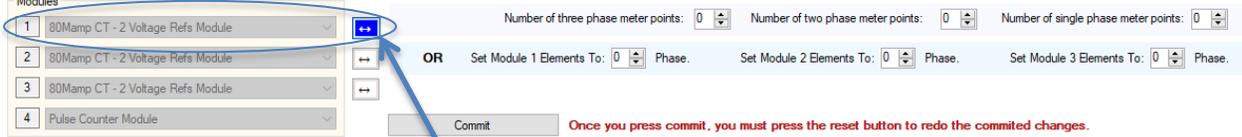
The tool will automatically assign each meter point to a CT module and a set of wire pairs. Each meter point is assigned to begin at the next available set of wire pairs. The selected number of 3-element meters points are assigned first, followed by the 2-element meter points, and then the single element meter points.

Multiple "Commits" can be used to mix up the order of 3, 2 or 1 element meter points. Each time a new "Commit" is performed, the new meter points will be assigned beginning at the first un-programmed wire pair starting from the selected module to start creating meter points on.

WARNING: Be aware that the tool can create a meter point with elements that span across two different modules.

2) For any CT module, assign the number of elements (1, 2, or 3) to be used for all the meter points on the module and then press "Commit".

The tool will automatically fill in any unused wire pairs in the module with new meter points with the selected number of elements.

Once the meter points have been assigned to CT module number and wire pair positions, the assigned meter points will be displayed as shown below.

This example shows one 3 element, one 2 element and one single element meter point.
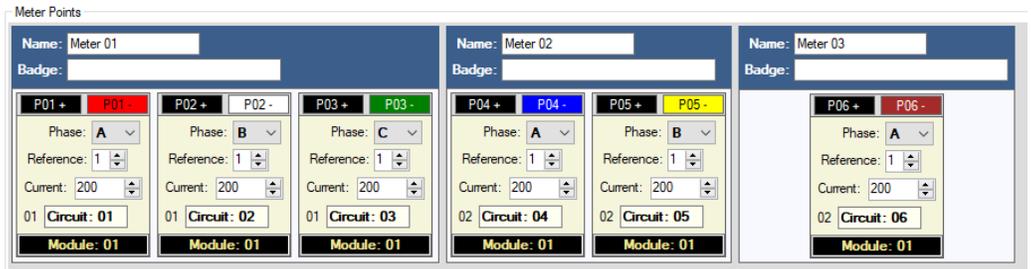
Name:

The default Meter Point Name is "Meter #". These are initially assigned in the order that they are created however this name can be changed to anything more meaningful.

Badge Number:

Badge numbers are unique meter ID numbers required by some meter certification bodies (i.e Measurement Canada) for each meter point.

Badge numbers can be entered separately for each meter point or they can be assigned in bulk to all meter points using ▼ Badge Numbers ... button. This opens the following pane:
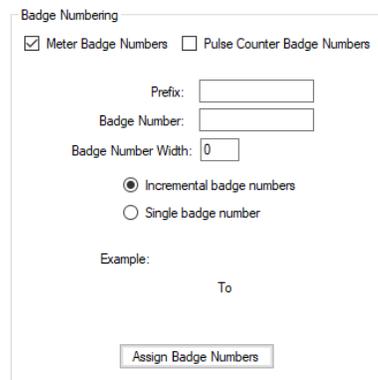
The badge number can be up to 13 alphanumeric characters in length. The **Badge Numbering** pane allows the user to select one of two formats for badge numbers:

- Incremental Badge Number - assigns a badge number to each meter point after the prefix (for example CORP-00000001 to CORP-00000012)

- Single Badge Number - uses a base number prefix to designate the meter, then assigns a sequential badge number suffix to each meter point assigned to that meter (for example CORP-00001-01 to CORP-00001-12)

The configuration tool provides examples before the badge number is assigned to the meter. In the **Badge Numbering** pane shown above, the following fields and buttons are provided for assigning badge numbers:

- **Prefix field** - an alphanumeric field that prefixes the number field.
- **Badge Number field** - a numeric field that becomes part of the prefix for meter points assigned to that meter, or the first number in the sequence to be assigned to individual meter points.
- **Badge Number Width** field - a numeric field that defines the number of digits in the badge number field. Zeroes (0) are automatically entered at the beginning of the badge number field until the total number of digits in the badge number field equals the number of digits defined in the badge number width field.
- **Incremental badge numbers** button - selecting this button assigns a sequential badge number for each meter point.
- **Single badge number** button - selecting this button assigns one badge number prefix followed by a numeric suffix for each meter point assigned to that meter.
- **Assign Badge Numbers** button - selecting this button implements the badge numbering defined by the user in the previous fields.

Per Element Config:

The following parameters in each element of a meter point must be configured separately for each element.

Pn +/-: Pn identifies each input pair (01 to 12) on a module. +/- indicates X1/X2 for each CT. The Pn +/- colours indicate the wire pair colours for each wire pair input on Triacta 12 Pair CT cables (as purchased separately or as part of the connection modules with built in 12 pair cables).

Phasing: The initial default phasing for each element in each meter is assigned as per the "Phase Allocation…" button described above.

If the default phasing does not match the actual (or designed) installed CT phasing, the phasing of each element on each meter must be corrected separately.

If more than one element in a meter is programmed with the same phase, all the elements in the meter will be highlighted in RED as follows:
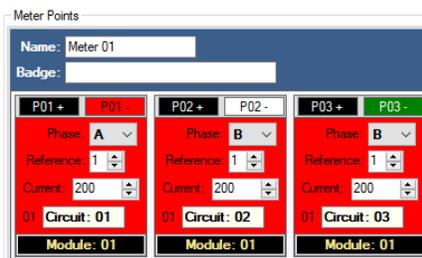
This is just a warning, the tool will allow you to save and send this configuration to the meter. Although this is not a typical meter configuration, a meter technician may want to do this for debugging purposes.
Reference: One of two separate reference voltages can be selected for each element.

The two reference voltages are currently identified by reference number only (1 or 2). Be sure that the proper reference voltage number is configured for each meter point.

Be sure that all the elements in each meter point use the same reference.

*** Note that there is a restriction in the current version of the CT module hardware that does not allow the same phase with two different reference voltages in each three consecutive "circuits" (1/2/3, 4/5/6, …) in each module. An error warning as shown below will pop up when a **Save**… is attempted or when the **Commit** button is selected, and the configuration will not be accepted.
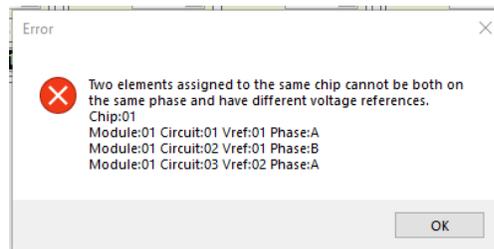
Current: Enter the primary current rating for the CT connected to each element.

Circuit #: Identifies the wire pair input number (P #) on each wire connection module that each element is assigned to.

Module #: Identifies the wire pair connection module number that each element is assigned to. Each Module # has a different colour for easy identification.

When installing CTs and connecting them to the Triacta GATEWAY, ensure that each CT for each meter point is connected to the correct wire pair input (Circuit # / P#) on the correct wire connection module (Module #).

Chip ID #: This is used by the tool to determine if there is a phasing and voltage programming limitation as described above in the description of **Reference**:

Configuring Pulse Inputs

The default Pulse Counter Name is "Pulse Counter #" (01 to 12). These are initially assigned in the order that they are created however this name can be changed to anything more meaningful.

> **Scale**: The pulse count that is stored and reported by the Triacta GATEWAY will be the actual number of pulses received by the Triacta GATEWAY, multiplied by the programmed Pulse Scale Factor.

> **Circuit #**: Identifies the wire pair input number (P #) on each wire connection module that each Pulse input device is assigned to.

> **Module #**: Identifies the wire connection module number that each Pulse input device is assigned to.

Meter Dial Function:
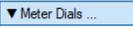
Clicking on the [▼ Meter Dials ...] button will open the following pane:
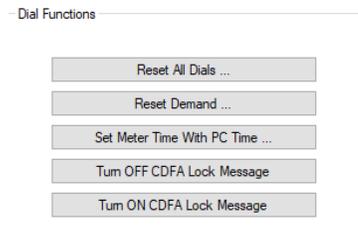
> The **Reset All Dials** button affects all Meter Points (Circuits) and immediately resets all registers to zero for all energy types, demand readings, and pulse counts.

> The **Reset Demand** button will immediately reset the Peak kW Del .Demand and Peak kVA Demand registers for all Meter Points to zero. The Peak Demand timestamp will be set to 1970/01/01,00:00.

> The **Set Meter Time With PC Time …** button will immediately cause the meter time to be set to the UTC time of the PC. The local time of the PC is not used or stored anywhere.

> The **Turn OFF CDFA Lock Message** and **Turn ON CDFA Lock Message** buttons are used to control a "LOCKED" message on the Triacta GATEWAY Display which complies with CDFA (California Department of Food and Agriculture) metering requirements.

> If the CDFA Lock Message is turned ON and the meter programming switch is in the UNLOCKED position, the meter display will show the UNLOCKED Message as shown below for every display.

If the CDFA Lock Message is turned ON and the meter programming switch is in the LOCKED position, or if the CDFA Lock Message is turned OFF, the meter display will show the programmed meter name after each meter number (M#).

Modbus Tab

The Modbus tab is for development purposes only.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Triacta Power for any consequences arising out of the use of this material.

11/2018