# Smart Wireless Gateway User Interface Terminology Guide

This document describes the terms, user fields, and parameters used in the Smart Wireless Gateway Web Based User Interface.

#### TABLE OF CONTENTS

Home Page	. page 1-1
Diagnostics	. page 1-2
Explorer	. page 1-17
Setup	. page 1-18
Modbus	. page 1-43
OPC	. page 1-47
Ethernet/IP <sup>™</sup>	. page 1-49

#### NOTE

To quickly find any content or term press ctrl+F.

#### HOME PAGE

EMERSON. Process Management	Smart Wirel	ess Gateway	
	192.168.1.10		🔍 🕲 📔 💼 admin
1921148.3116 Compositions 0 - 1 Hetwork - 2 Devices -	Diagnostics Were status of communications, clent serve Monitor Were created screens for viewing data from Explorer Barc view of values from field devices. Setup Configure the GW for operation, security and	r parameters, and more. field devices. d host system integration.	
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Terms	Description
Diagnostics	View status of communications, client server parameters, and more.
Monitor	User created screens for viewing data from field devices.
Explorer	Basic view of values from field devices.
Setup	Configure the Gateway for operation, security and host system integration.



# DIAGNOSTICS

Diagnostics> Network>Overview

Network Overview		🗣 🔯   🕲 🌻
Active advertising	Activated Setup	
Fast pipe	Deactivated	
Wireless device count	3	
Live	3 🕒	
Stale	0	
Unreachable	0	
Unknown	0	
Devices with service denied	0	
Devices with critical power failure	0	
Devices with unknown names	0	
Devices with undefined names	0	
Devices with duplicated names	0	
Devices with invalid names	0	
Using common join key	yes 🔥 Setup	
Open unsecured port	yes 🔥 Setup	
System up time	0 days, 0 hours and 42 minutes	

Terms	Description
Active Advertising	Shows whether active advertising is activated or deactivated. Active advertising causes the WirelessHART network to send wireless messages looking for new or unreachable devices to join the network. Active advertising is automatically activated for 60 minutes when the Gateway is first powered up, a device becomes unreachable, or no devices are found. Clicking on setup will navigate to the network speed page in the web based user interface.
Fast Pipe	Shows whether fast pipe is activated or deactivated. Fast pipe creates a dedicated channel for communication to the selected device. Used for large data transfers (valve signatures, meter verifications, etc).
Wireless Device Count	Total number of expected field devices.
Live	Number of field devices that are currently communicating on the WirelessHART network.
Stale	Number of field devices that have missed several consecutive updates, but are not yet classified as unreachable. When a device is classified as stale, point data for Modbus and OPC is given a bad status.
Unreachable	Number of field devices that have not communicated for 10 minutes or more. (also considered offline) When a device is classified as unreachable, point data for Modbus and OPC is given a bad status.
Unknown	Number of field devices with an unknown state (i.e. not live, late, stale, etc).
Wired HART Device Count	Number of wired HART field devices that are communicating via a WirelessHART adapter.
Devices With Service Denied	Number of field devices that have been denied bandwidth because a) too many devices are on the WirelessHART network or b) the device has asked for an update rate not currently supported by the Gateway. Clicking on details will navigate to the network devices page in the web based user interface.
Devices That Need Neighbors	Number of field devices that require another field device (neighbor) to ensure more robust or optimal communications.
Devices With Critical Power Failure	Number of field devices that have reported low supply voltage alert. These devices have enough power to communicate but may have stopped reporting the regular updates.

Terms	Description
Devices With Unknown Names	Number of field devices whose HART long tag or HART message is not currently known (typical during the join process).
Devices With Undefined Names	Number of field devices whose HART long tag or message has been left blank.
Devices With Duplicated Names	Number of field devices with duplicate HART long tag or HART message.
Devices With Invalid Names	Number of field devices whose HART long tag or HART message begin with a '-' or contains either a '.' or ','.
Devices With Duplicated Ids	Number of field devices with duplicate device ids. This should rarely appear because all devices require unique device ids.
Network At Device Count Limit	Indicates if the maximum number of devices (100) has been reached. This field only appears in the web based user interface if true.
Network Radio Interface Lost	Indicates if the Gateway has lost communications to the radio. This field only appears in the web based user interface if true.
Factory Support Accounts Enabled	Indicates whether manufacturing and engineering default accounts are enabled. These accounts are used to program factory settings, model number, serial number, optional functionality. Also need to be enabled to perform Gateway firmware updates. This field only appears in the web based user interface if true.
Using Common Join Key	Indicates whether any field devices are using the common join key when in access control list mode. This field only appears in the web based user interface if true.
Open Unsecured Port	Indicates whether any unsecure communication ports (non-SSL enabled Ethernet) are enabled on the security protocols page. This field only appears in the web based user interface if true.
Device Join Failure	Indicates whether a field device has requested to join the WirelessHART network and failed (typically due to security reasons, wrong join key, not on access control list, etc). This field only appears in the web based user interface if true.
Device Invalid MIC	Indicates whether a field device has an invalid message integrity check. This field only appears in the web based user interface if true.
System Up Time	The total time the system has been operational without an interruption (power-cycle, failure, etcdoes not include application restarts).

# Diagnostics> Network>Devices

EMERSON.	:	Sma	art Wire	less	Gate	way					
	Network Devic	e Status	i				_	0	0   👩	ədmin	
192.168.1.10	HART Tag	Node	Active	Neighbors	Service denied	Reliability	Missed updates	Path stability	RSSI	Joins	Join Time
Overview	20515 Pressure	٠	wihartgw 648 Temperature	2	•	100.0 %	0	100.0 %	-13 db	1	07/16/10 11:18:00
Join failures	640 Temperature	•	wihartgw 30515 Pressure 702 Discrete	э	•	100.0 %	0	100.0 %	-19 db	1	07/16/10 11:18:16
B Monitor	702 Discrete	٠	wihartgw 648 Temperature	2	•	100.0 %	0	100.0 %	-19 db	1	07/16/10 11:18:34
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Terms	Description
Hart Tag	32 character HART long tag (or 32 character HART message for wired HART 5 devices).
Node State	The state of the device: live, late, stale, joining, unreachable, or unknown. Green = live, Red = stale, joining, unreachable, or unknown. Hover over the node state icon for a more descriptive message.
Active Neighbors	HART Tag of other field devices with connections to this field device.
Neighbors	Number of other field devices with connections to this field device.
Service Denied	Indicates whether the field device has been denied bandwidth because a) too many devices are on the WirelessHART network or b) the device has asked for an update rate not currently supported by the Gateway.
Missed Updates	Total number of updates that have not been received by the Gateway. AxCD (x indicates a missed update where B should have been). This is a life time statistic that must be reset manually or via a Gateway restart.
Reliability	Percentage of expected data packets that have been received by the Gateway. 100.0% reliability means that every expected data packet was received. This number is rounded to the nearest 1/10th percent. This is a life time statistic that must be reset manual or via a Gateway restart.
Path Stability	Percentage of transmitted packets that have successfully reached their destination over a given path. Maximum for the field device and its strongest neighbor. Neighbor A path stability = 100, Neighbor B path stability = 90, Path Stability = 100. Calculated in 15 minute cycles.
Rssi	Maximum received signal strength indication (dBm) for the field device and its strongest neighbor. Neighbor A RSSI = -35 dBm, Neighbor B RSSI = -75 dBM, RSSI = -35 dBM. Calculated in 15 minute cycles.
Joins	Number of times the field device has joined the network since the last system reset.
Join Time	Time that the field device made its last successful join.

## Diagnostics> Network>Join failures

EMERSON. Process Management	Sm	nart Wi	reless Gat	eway	
	Join failures				🕽 🕘 📔 💼 admin
192.168.1.10 Digososics Digososics Corrier C	Last Failure Time 07/19/10 09:00:48 Reset list	Failure Count	Device ID 00-18-18-26-5A-6A-0C-FF	Name	Online Po

Terms	Description
Join Failure	When a field device fails to join the WirelessHART network. Most join
	failures are due to security reasons (missing or incorrect join key, not on access control list, etc).
Last Failure Time	Time the field device last attempted to join the WirelessHART network.
Failure Count	Number of failed join attempts for this field device.
Device ID	Unique device identification number. All WirelessHART devices should
	begin with 00-1E-1B. The next 4 digit represent the device type. The last 6
	vary from device to device.
Name	HART tag of the field device. Generally unknown if in a join failure state.
In Access Control	Indicates if the Device ID appears in the access control list (only when in
List	access control mode).
Online	Indicates if the field device is communicating with the WirelessHART
	network.
Reset List	Clears all entries for the join failure table.
Edit Access	Navigates to the access control list page in the web based user interface.
Control List	

## Diagnostics> Network>Invalid MICs

EMERSON. Process Management	Smart Wirel	ess Gateway	
	Invalid Message Integrity Checks		🔍 🕲 📔 📷 admin
1 192.168.1.10 Diagnostics University Devrices Conview Convie	There are no invalid MICs (Message Integrity Check	ð.	
& Emergen 2016	Freihach	Terms Of the	

Terms	Description
Message Integrity	Diagnostic in each data packet that allows the Gateway to verify the packet
Check	source and contents.
Invalid MIC	Packet received from field device is not valid. May indicate a security problem.

#### Diagnostics> Advanced>Network Stats

EMERSON. Process Management	Smart W	/ireless Gatewa	у	
	Network Statistics			🍳 🕲 📔 🙍 admin
192.168.1.10			Reset counts	
R Advanced	Description	Value		
Babaark State	Tx requests		33	
R CR MART CAME	Tx request timeouts		0	
Real Modeus Casts	Rx response messages		33	
Modous Stats	Rx burst messages		486	
System stats	Requests received		33	
Client/Server	Responses sent		33	
Monitor	Upstream packets lost		0	
- Explorer				
Ø Setup		15 minute	Lifetime	
	Average latency	0.899 sec	0.805 sec	

Terms	Description
Tx Requests	Number of HART messages sent / transmitted by the radio to the field devices.
Tx Request Timeouts	Number of time there was no response from the field devices.
Rx Response Messages	Number of HART message responses received by the radio from the field devices. Equal to Tx requests – Tx request timeouts.
Rx Burst Messages	Number of burst/published messages received from the field devices. These messages that are pushed from the device and not requested/polled for.
Requests Received	Number of HART messages requested by a user application. These messages are forwarded to the radio to be transmitted. Examples of user applications are the Gateway's web based user interface, asset management software, device configuration software, etc
Responses Sent	Number of HART message responses received from field devices that are then forwarded on to the requesting user application.
Average Latency	Time difference between when a message is time stamped in a field device and when it is received by the Gateway's WirelessHART radio. This value is the average latency for the entire WirelessHART network.
Average Reliability	Percentage of expected data packets that have been received by the Gateway. 100% reliability means that every expected data packet was received. This value is the average reliability for the entire WirelessHART network.
Reset Counts	Resets all values for this table. (does not include latency or reliability)

## Diagnostics> Advanced> Redundancy Status



Terms	Description
Active	This gateway is currently in communication with the user. The final assembly number is shown in the middle.
Not Configured	The redundant gateway must be configured in the redundancy mode and have the firmware option enabled.

#### Diagnostics> Advanced> Redundancy Status



Terms	Description
Switchover	Use this button to switch from the primary gateway to the secondary gateway. Commonly used to switch out gateways without loss of network.
Standby	Now shown with the standby assembly number.

# Diagnostics> Advanced>HART Stats>XML Stats

EMERSON. Process Management	Smart Wirel	ess Gateway	
	HART XML Statistics		🍳 🕘 🛛 📷 admin
192.168.1.10 Dignostics Network Stats Network Stats Network Stats Network Stats Network Stats Network Stats Network Stats Network Stats Network Stats St	Description Messages received Messages returned Requests forwarded Responses returned Accepted connections	Rest counts	

Terms	Description
Hart Xml	Refers to HART communications over XML protocol. This is associated with the AMS Wireless Configurator and AMS Secure communication protocols.
Messages Received	Number of messages the Gateway has received from a client application (this is typically AMS Wireless Configurator).
Messages Returned	Number of messages the Gateway has returned to a client application (this is typically AMS Wireless Configurator).
Messages Broadcast	Number of periodic (scheduled) messages the Gateway has received from a client application. This is typical when AMS Wireless Configurator has been setup to poll for device alerts using the Alert Monitor application.
Requests Forwarded	Number of messages the Gateway has forwarded to field devices. Not all messages received are forwarded because some information is cached in the Gateway.
Responses Returned	Number of messages the Gateway has received from field devices in response to forwarded requests.
Accepted Connections	Number of total connections from client applications accepted over time (not the current number of connections).
Reset Counts	Resets all values for this table.

# Diagnostics> Advanced>HART Stats>UDP Stats

EMERSON.	Smart Wirel	ess Gateway	
	HART UDP Statistics		🍳 🕼 📔 admin
192.168.1.10 Dugoostics itevork 	HART UDP Statistics           Description           Messages received           Messages tradicast           Requests forwarded           Response returned           Accepted connections	Value 0 0 0 0 0 0 0 0 0	\rm
© Emerson, 2010	Feedback	Terms Of Use	

Terms	Description
Hart Udp	Refers to HART communications over UPD protocol. This is associated
	with the HART UDP Port communication protocol.
Messages	Number of messages the Gateway has received from a client application
Received	(this is typically AMS Wireless Configurator).
Messages	Number of messages the Gateway has returned to a client application (this
Returned	is typically AMS Wireless Configurator).
Messages	Number of periodic (scheduled) messages the Gateway has received from
Broadcast	a client application. This is typical when AMS Wireless Configurator has
	been setup to poll for device alerts using the Alert Monitor application.
Requests	Number of messages the Gateway has forwarded to field devices. Not all
Forwarded	messages received are forwarded because some information is cached in
	the Gateway.
Responses	Number of messages the Gateway has received from field devices in
Returned	response to forwarded requests.
Accepted	Number of total connections from client applications accepted over time
Connections	(not the current number of connections).
Reset Counts	Resets all values for this table.

# Diagnostics> Advanced>HART Stats>TCP Stats

EMERSON. Process Management	Smart Wire	less Gateway	
	HART TCP Statistics	V 🛛 🕴	admin
192.168.1.10 Chaptostics Chaptostics Chapterion Ch	Description Messages received Messages returned Messages broadcast Requests forwarded Responses returned Accepted connections	Rest counts	

Terms	Description
Hart Tcp	Refers to HART communications over TCP protocol. This is associated with the HART TCP Port and HART TCP Port Secure communication protocol.
Messages Received	Number of messages the Gateway has received from a client application (this can be any HART enabled host).
Messages Returned	Number of messages the Gateway has returned to a client application (this can be any HART enabled host).
Messages Broadcast	Number of periodic (scheduled) messages the Gateway has received from a client application.
Requests Forwarded	Number of messages the Gateway has forwarded to field devices. Not all messages received are forwarded because some information is cached in the Gateway.
Responses Returned	Number of messages the Gateway has received from field devices in response to forwarded requests.
Accepted Connections	Number of total connections from client applications accepted over time (not the current number of connections).
Reset Counts	Resets all values for this table.

# Diagnostics> Advanced>Modbus Stats>Serial Stats

EMERSON. Process Management	Sma	rt Wireless G	Gateway	
	Modbus Serial Statistics			🖓 🕲 📔 admin
192.168.1.10			Reset co	unts
8 Advanced	Descrip	tion	Value	
Network Stats	Receive	Messages Crc errors		0
Bal Modbus Stats	Transmit	Messages Error responses		0
TCP Stats System Stats System Stats Deboter Splorer				
© Emerson, 2010		feedback	Terms Of Use	

Terms	Description
Messages Receive	Number of messages received from the Modbus master device.
Crc Errors	Number of cyclic redundancy check errors. Crc errors generally indicate noise in transmission or problems with data integrity.
Messages Transmit	Number of response messages transmitted from the Gateway.
Error Responses	Number of error response messages transmitted from the Gateway.
Reset Counts	Resets all values for this table.

# Diagnostics> Advanced>Modbus Stats>TCP Stats

EMERSON. Process Management	Smart Wire	less Gateway	
	Modbus TCP Statistics		🗣 🕘 🛛 🙍 admin
192.166.1.10 Composition Comp	Description Messages received Messages transmitted Error responses Open connections Accepted connections	Reset counts	

Terms	Description
Messages	Number of messages received from the Modbus TCP device.
Received	
Messages	Number of response messages transmitted from the Gateway.
Transmitted	
Error Responses	Number of error response messages transmitted from the Gateway.
Open	Number of current connections from Modbus TCP masters.
Connections	
Accepted	Number of total connections from Modbus TCP masters accepted over
Connections	time (not the current number of connections).
Reset Counts	Resets all values for this table.

# Diagnostics> Advanced>System Stats

CPU Information       Description       User       System       Total       CPU Usage       4.0%     3.5%       Description       Size       Used       Ram       126536k     41028k       Description       Description       Description       Description       Main Filesystem       Total Usage       126970k       2008k       Description       Logs       Total Usage       Colspan="2">Description	CPU Information       Total       CPU Usage       4.0%       System       Total       CPU Usage       Used       Example 1.0%       Bescription       Size       Used       Ram       Description       Size       Used       Main Filesystem Information       Description       Size       Used       Main Filesystem       Total Usage       Total Usage       Display Elevent       Total Usage       Display Elevent       Total Usage       Display Elevent       Total Usage       Display Elevent	System Statistics		_			0 0 1 6 ate
CPU Information       Description     User       CPU Usage     1.5%     5.8%       CPU Usage     CPU Usage       Description     Size     Used       Elesystem Information       Description     Size     Used       Main Filesystem     Total Usage     126976k     73605k     58%       Temporary Filesystem     Total Usage     63268k     2.0k     o%	CPU Usage     Total       Description     User     System     Total       CPU Usage     4.0%     1.5%     5.8%       Memory Information     Used     Used       Ram     126356k     41028k     32.4%       Ram     Description     Size     Used       Main Filesystem     Total Usage     126976k     58%       Temporary Filesystem     Cogs     184%     0.3%	System statistics					A 0 1 1 33
CPU Information       Description       User     System     Total       CPU Usage     4.0%     1.5%     5.8%       Description     Size     User       Bats     Description     Size       Pilesystem Information     User       Description     Size       Description     Size       Description     Size       Temporary Filesystem     Total Usage     126976k       Temporary Filesystem     Logs     134k     0.3%	CPU Usere     Total       CPU Usage     4.0%     1.5%     5.0%       ats     Memory Information       Description     Size     Used       Filesystem Information       Description     Size     Used       Main Filesystem     Total Usage     164/2008     58%       Temporary Filesystem     Total Usage     164%     0.3%						
CPU Usage     4.0%     1.5%     5.8%       Memory Information     Size     Used       Ram     126555k     41026k     32.4%       Filesystem Information     Size     Used       Main Filesystem     Total Usage     126976k     7306k       Temporary Filesystem     Logs     184k     0.3%	CPU Usage     4.0%     1.5%       ats     Memory Information       ts     Size       Main     12653k       41025k     22.4%       Filesystem Information     Size       Main Filesystem     Total Usage       12653k     126976k       76000k     59%       Temporary Filesystem     Total Usage       63268k     236k       00%     59%	Description	CPU Information	Sestem	Tot	al	
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		Temporary Filesystem	Total Usage	63268k	236k	0%	
		Temporary Filesystem	Logs Total Usage	63268k	184k 236k	0.3%	

Terms	Description
Cpu Usage	Central Processing Unit (CPU) utilization (time used by a process) by
	application or kernel.
User	Percentage of CPU utilization that occurred while executing at the user
	level (application).
System	Percentage of CPU utilization that occurred while executing at the system
	level (kernel).
Total	Combine Percentage CPU utilization, User + System.
Ram	Random Access Memory.
Size	Total memory or disk space.
Used	Portion of memory or disk space that has been used.
Main Filesystem	Disk space reserved for Gateway operating system, user interface pages
	and configuration data.
Temporary	Disk space reserved for log files, custom pages, and custom trends.
Filesystem	
Logs	Disk space taken by diagnostic log files.

#### Diagnostics> Advanced>

# **Client/Server**



Terms	Description
Server	The WirelessHART Gateway web server application.
Client	PC client that is currently logged onto the Gateway.
Hg Version	WirelessHART Gateway firmware version. Version 3.7.1 is the initial
	release version for WirelessHART.
Name	Hostname assigned to the Gateway.
Physical Address	Hardware MAC address for the primary and secondary Ethernet ports.
Hg Serial Number	Gateway serial number (or final assembly number).
Pm Serial	Program manager serial number from Dust Networks.
Number	
HG Model	Gateway model number.
Number	
Hg Device Id	Gateway unique identification number.
Network	Radio frequency band that wireless field network operates. Typically this is
Frequency	2.4 GHz, but 900 MHz was available for pre-WirelessHART networks. All
	WirelessHART networks are 2.4 GHz.
Hart Universal	The major revision of HART specification that applies to this Gateway.
Revision	
Browser Name	The web browser application that is currently accessing the Gateway.
Browser Version	The web browser version.
Operating System	Operating system of the PC client currently accessing the Gateway.
Screen Width	Screen width resolution for the PC client.
Screen Height	Screen height resolution for the PC client.
Color Depth	Number of colors (in millions) used by the PC client to render images.
User Agent Info	Information provided by web browser for further identification.
Java Enabled	Indicates whether Java script is enabled.
IP Address	IP address of the PC client.
Remote User	User role used to log into the Gateway.

# EXPLORER

EMERSON. Process Management	S	ma	rt Wirel	ess Ga	ateway	/			
	Explorer						_	۵ 🌵	🔯 admin
192.168.1.10	HART Tag	HART	Last update	PV	sv	TV	QV	Burst rate	
- Replerer	30515 Pressure	٠	07/19/10 09:18:04	0.000 PSI	23.572 DegC 🔵	23.000 DegC 🔵	8.774 V 🔍	-4	
8 👸 Setup	648 Temperature	٠	07/19/10 09:17:45	23.527 DegC 🔵	NaN DegC 🗘	23.250 DegC 🔵	8.773 V 🔍	00:01:00	
	702 Discrete	•	07/19/10 09:17:50	0.000 🔍	0.000 🔍	24.000 DegC 🔴	9.198 V 🔵	00:01:00	
© Emergen, 3010			readback		Телин	s Of Uwe			

Terms	Description
Hart Tag	32 character HART long tag (or 32 character HART message for wired
	HART 5 devices).
HART Status	HART status parameter, this is the overall field device status. Hover over
	the status icon for a more descriptive message.
Last Update	Time stamp of the last measurement received by the wireless field device.
PV	Value of the HART primary variable (1st variable).
SV	Value of the HART secondary variable (2nd variable).
TV	Value of the HART tertiary variable (3rd variable).
QV	Value of the HART quaternary variable (4th variable).
Burst Rate	Interval in which the field device transmits it's measurement data to the
	Gateway. Some field devices burst multiple messages and at different
	rates. For Burst rates under 1 minute this is reported in seconds. For Burst
	rates of 1 minute or greater this is reported in hh:mm:ss.

#### SETUP

## Setup>Network> Settings



Terms	Description
Network Name	User define network name.
Network ID	Identification number that tells field devices what WirelessHART network it
	belongs to.
Security Mode	Selects whether the Gateway uses a common join key or access control
	list to determine who can join the WirelessHART network.
Common Join	Under this security mode, the entire WirelessHART network uses the same
Key	join key in order to join the network.
Access Control	Under this security mode, the Gateway maintains an access control list
List	where each device has a separate unique join key.
Show Join Key	Allows the user to see the current common join key for the WirelessHART
	network.
Generate	Causes the Gateway to generate a new common join key. Changes must
Random Join Key	be submitted before taking affect and will propagate to all wireless devices
	currently joined to the WirelessHART network.
Rotate Network	Causes the Gateway to generate a new random network key (encryption)
Key?	on a periodic basis.
Key Rotation	The period of time in days before the Gateway will generate a new random
Period (Days)	network key.
Change Network	Cause the Gateway to generate a new network key. Changes must be
Key Now?	submitted before taking affect and will propagate to all wireless devices
	currently joined to the WirelessHART network.
Submit	Accepts all changes (highlighted in yellow).

## Setup>Network> Settings>Access Control List

Process Management	reless Gateway	/			
Access Control List			• (	👂   💼 admin	
Access Control List  Access Control List Access Control List  Access Control List  Access Control List  Access Control List  Access Control List  Access Con	Device Name       648 Temperature       30515 Pressure       702 Discrete       702 Discrete       Barth       Add entries for join failures       armon kay for selected       Select	Generate New Join Key	Online yes yes	Common No no no no no no no no no no no no no no	Default Join Key no no no Lad >> Lad >>

Terms	Description
Device ID	Unique device identification number. All WirelessHART devices should
	begin with 00-1E-1B. The next 4 digit represent the device type. The last 6
	vary from device to device.
Device Name	The device's HART Tag
Generate New	Generates a new unique join key for the device.
Join Key	
Online	Indicates the device is communicating on the WirelessHART network.
Common Join	Indicates the device is using a common join key.
Key	
Default Join Key	Indicates the device is using the default join key.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table.</td></previous<>	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
New Entry	Creates a new entry in this table.
Show Join Failure	Navigates to the join failures page in the web interface.
Add Entries For	Creates new entries in this table and populates them with the current join
Join Failure	failures.
Delete Selected	Removes the selected entry from this table.
Check Generate	Checks the Generate New Join Key box for all selected entries.
Key For Selected	
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Online	Selects all online devices in this table.
Select New Join	Selects all devices with a common join key or a default join key.
Key	
Recommended	
Submit	Accepts all changes (highlighted in yellow).

# Setup>Network> Speed

EMERSON. Process Management	Smart Wir	eless Gateway	
	Network Speed		🔍 💷 📔 💼 admin
192.168.1.10 Diagnostics Setup Set	Active advertising Duration (minutes) Activate	Deactivated 30	

Terms	Description
Active Advertising	Shows whether active advertising is activated or deactivated. Active
	advertising causes the WirelessHART network to send wireless messages
	looking for new devices to join the network. Active advertising is
	automatically activated for 30 minutes when the Gateway is powered up.
Duration	Determines how long (in minutes) active advertising will be enabled.
(Minutes)	
Activate	Causes the WirelessHART network to enter active advertising mode
Fast Pipe	Shows whether fast pipe is activated or deactivated. Fast pipe creates a
	dedicated channel for communication to the selected device. Used for
	large data transfers. (valve signatures, meter verifications, etc)
Inactivity Timeout	Determines how long (in minutes) Fast pipe will remain active when no
(Minutes)	polled requests are being sent (or idle connection) to the field device.
Device Selector	Selects a device to establish fast pipe.
Activate	Establish a fast pipe connection with the selected field device.

#### Setup>Network> Bandwidth

EMERSON.	Smart Wirel	ess Gateway	
	Network bandwidth		🍳 🕘 📔 📷 admin
192.164.1.10 Diagnostics Setup Set	Ne changes to network bandwidth settings are reco Analyze again	mmmded.	
© Emerson 2010	Feedback	Terms Of the	

Terms	Description
Analyze Again	Analyzes the WirelessHART network to determine if any devices require more bandwidth.
Update	Changes Gateway network bandwidth settings. This option only appears if a change is required for a device to communicate or if change will help optimize the network. Note that this will temporarily reset the network.

#### Setup>Network> Redundancy



Terms	Description
Redundant Mode	Use to place the gateway in redundant mode from simplex
First Node	Determine the name of the primary gateway
Second Node	Determine the name of the secondary gateway
Primary Node	Use to make the primary graphic on the left or right

#### Manual Supplement 00809-0600-4420, Rev AA July 2012

#### Setup>Ethernet Protocol



Terms	Description
Primary Interface	Refers to Ethernet port 1. (optional may refer to fiber optic port if fiber optic
	is enabled)
Secondary	Refers to Ethernet port 2. (optional may refer to Ethernet port 1 if fiber optic
Interface	is enabled)
Obtain An IP	Causes the associated interface to obtain an IP address from a DHCP
Address From A	server.
DHCP Server	
Obtain Domain	Causes the associated interface to obtain a Domain Name from a DHCP
Name From	server.
DHCP Server	
Specify An IP	Causes the associated interface to use a specific IP address.
Address	
Hostname	Hostname for the WirelessHART Gateway.
Domain Name	Name of the Domain that the WirelessHART Gateway will join.
IP Address	User specified IP address for the associated interface.
Netmask	User specified netmask for the associated interface.
Gateway	User specified gateway for the associated interface. (not to be confused
	with the WirelessHART Gateway).
Submit	Accepts all changes (highlighted in yellow).

# Setup>Security> User Accounts

EMERSON. Process Management	Smart Wirele	ess Gateway	
	User Accounts	🕈 🔍 🖉 👔 admin	
192.164.1.10 Diagnostics Setup Setup Setup Secury Certificates Protocols Time Potocols Protocols Firmare Upgade Firmare Upgade	Use coution when changing the administrator New Administrator Password Confirm New Mointenance Password Confirm New Operator Password Confirm New Executive Password Confirm	tor password. If the administrator password is lost, you will not be able to setup the GW.	

Terms	Description
New	Field for entering a new administrator password.
Administrator	
Password	
New Maintenance	Field for entering a new maintenance password.
Password	
New Operator	Field for entering a new operator password.
Password	
New Executive	Field for entering a new executive password.
Password	
Confirm	Field to confirm the new password for each user role.
Enable Factory	Allows factory support personnel to log onto the Gateway and change
Support Accounts	factory settings.
Submit	Accepts all changes (highlighted in yellow).

# Setup>Security> Certificates

EMERSON. Process Management	Smart Wireless Gateway	,
	Certificate Management	🔍 🕘   🚋 admin
192.168.1.10 Diagnostics Support Sup	Import GW certificate into web browser Rebuild GW certificates	

Terms	Description
Import GW	Sends Gateway security certificates to the current web browser.
Certificate Into	
Webrowser	
Rebuild GW	Rebuilds the security certificates for the Gateway. This process may take
Certificates	time and interrupt Gateway communications.

# Setup>Security> User Options

EMERSON. Process Management	Sma	rt Wireless Gat	teway	
	User Options			🍳 🕲   💼 admin
192.168.1.10 Diagnostics Explorer Stup Convertings C	Password strength	None Weak Normal Strong     Minimum length     Lowercase count     Uppercase count     Uppercase count     Symbol count     Session idle timeout (minutes)     Maximum session lifetime (hours)     Minimum password lifetime (hours)     Maximum dilure limit     Password failure lock     Password failure wait (minutes)     Password failure wait (minutes)     Password failure wait (minutes)     Password failure wait (minutes)	Custom Hide Details	
B Page Options Restart Apps Firmware Upprade Firmware Options B ↓ HART Changes B M Modbus B M Modbus B M Modbus	Login page messsage Submit	Do not attempt to log on unless y Unauthorized access will be prose of the law.	ou are an authorized user. outed to the fullest extent	

Terms	Description
Minimum length	Minimum number of characters required to establish a new password.
Lowercase count	Minimum number of lower case characters required to establish a new password.
Uppercase count	Minimum number of upper case characters required to establish a new password.
Digit count	How many total characters required to establish a new password.
Symbol count	Number of complex characters required in each password.
Session idle timeout	Minimum idle time allowed on the browser.
Maximum session lifetime	Maximum amount of time one session can be available without authentication.
Minimum password lifetime	Minimum amount of time one password can remain with one user.
Maximum password lifetime	Maximum amount of time one password can remain with one user.
Password failure limit	Amount of times an incorrect password can be submitted before the user is locked from the gateway.
Password failure lock	Used to turn on this feature.
Password failure wait	Amount of time the user must wait until the admin account is unlocked after a failure lockout.
Password history depth	Number of previous passwords that can not be used again.

#### Setup>Security> Access List

EMERSON.	Smart Wireless	Gateway		
	Client Access List		• • •	admin
192.168.1.10 Par Diagnostics Monitor Explorer	Clients allowed to access the GW using secure protocols: Organization	Common Name	Email	Expires
Setup Setup Setup Setup Setup Security				
Certificates Certificates Protocols Time System Backup	ccFmt         ccPrevious         Search           Delete selected         Select         All None         Enone	h Page 1 of 1		Next>> Last>
Page Options     Page Options     Restart Apps     Firmware Uggrade     Firmware Options     Changes     M Moduus     MOdus	To add a client certificate to the access list, use the Security Se	hap Utility.		
® 🕍 Trends				

Terms	Description
Organization	The client's organization.
Common Name	The client's name (PC name).
Email	The client's email address.
Expires	Date when client certificate is no longer valid.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table.</td></previous<>	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
Delete selected	Removes the selected entry from this table.
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Errors	Selects all table entries with error messages.

#### Setup>Security> Protocol



Terms	Description	
Enable	Enables associated communication protocol and opens the specified TCP / UDP port.	
Protocol	Type of Ethernet communication protocol.	
TCP Port	The TCP port used by the associated communication protocol.	
UDP Port	The UDP port used by the associated communication protocol.	
AMS Wireless Configurator	Ethernet communication protocol used to talk to asset management hosts.	
AMS Secure	SSL enabled Ethernet communication protocol used to talk to asset management hosts. Also requires HTTPS.	
HART Port	Ethernet communication protocol used to talk to HART enabled hosts.	
HART Port	SSL enabled Ethernet communication protocol used to talk to HART	
Secure	enabled hosts. Also requires HTTPS.	
HTTP	Ethernet communication protocol used for the Gateway's web based user interface.	
HTTPS	SSL enabled Ethernet communication protocol used for the Gateways web based user interface.	
Modbus TCP	Ethernet communication protocol used to talk to Modbus TCP enabled hosts.	
Modbus TCP	SSL enabled Ethernet communication protocol used to talk to Modbus	
Secure	TCP enabled hosts. Also requires HTTPS.	
NTP	Communication port used to talk to a Network Time Protocol (NTP) server	
OPC Comm	Ethernet communication protocol used to talk to the Gateway OPC proxy	
	server.	
OPC Comm	SSL enabled Ethernet communication protocol used to talk to the Gateway	
Secure	OPC proxy server. Also requires HTTPS.	
Submit	Accepts all changes (highlighted in yellow).	
Defaults	Restores the default protocols and port numbers.	

# Setup>Log Settings

EMERSON. Process Management	Smart Wireles	s Gateway	
	System Log Settings		🍳 🕘   💼 admin
192.168.1.10 Explore Explore For Diagnostics Explore For Diagnostics Explore For Diagnostics Explore For The Secury For Accents Certificates Access List Protocols Certificates Access List Protocols Explored Firmware Upgrades Firmware Upgrade	Enable Remote Logging     Remote Server Dr Address     Remote Server Port     Syslog Protocol     Syslog Transport     Require Trusted Server Certificate?     Log keep-alive message?     Keep-alive message frequency (minutes)     Submit Download log definition	514 514 ETF (Legacy) EUEP TCP TLS Yes No 0 Yes No 0 0	

Terms	Description
Remote Server IP Address	The IP address of the machine running the remote Syslog server
Remote Server Port	The protocol port that the remote Syslog server is using
Syslog Protocol	Syslog uses two common formats for logged messages. The newer format is referred to as IETF-Syslog and is defined in RFC 5424. The legacy format is referred to as BSD and is defined in RFC 3164.
Syslog Transport	The transport used for communication with the remote Syslog server. Choices are UDP, TCP or TLS (which is encrypted).
Require Trusted Server Certificate?	When using TLS encrypted communication, the remote Syslog server can use a trusted certificate or can use a certificate unknown to the 1420. Select 'Yes' for an added level of security and exchange keys with the
	1420 using the Security Setup on remote Syslog server.
Log keep-alive message?	A 'keep-alive' message can be sent by the 1420 when no other log activity has occurred. This provides another means for the remote Syslog server to verify communication with the 1420.
Keep-alive message frequency	The frequency the 'keep-alive' message is sent when no other log activity has occurred.

# Setup>Time

MERSON.	Smart	Wireless Gateway	
	Time Setup		🍳 🕘 📔 📷 admin
192.168.1.10 r biagnostics Montor Septioner Setup Setup Security Security Page Options Page Options Restart Apps Firmware Oppinge	Warning Changing the time or time setts This will result in the temporary Your PC's time (Withine (withartgw) Difference Wethod used to set time Primary Time server	ngs will require a network restart. Joss of communication to all devices. 07/19/10 09:37:28.165 07/19/10 09:37:48.093 0 days 00:00:20.928 © Network Time Protocol (NTP) O Set with PC time O Manual 155.177.150.1	é entry
HART Chappen	NTP server type	Ouricast     OBroadcast     OMulticast	
M Modbus	NTP packet version	01 02 03 04	
OPCOPC	Secondary		
trends	Time server NTP server type NTP packet version	© Unicast OBroadcast O Multicast	
	Submit		

Terms	Description
Your PC's Time	The time used by the PC client.
GW Time	The time currently used by the Gateway.
Difference	The difference between the PC client time and the Gateway time.
Method Used To Set Time	Selected what method to use when setting the Gateway time.
Network Time	Uses an NTP time server to regulate the Gateway time. Will also require
Protocol (Ntp)	an IP address and packet version of the NTP time server.
Set With PC Time	Uses the current PC client time to set the Gateway time. This will reset the WirelessHART network.
Manual Entry	Uses the Date and Time fields to set the Gateway time. This will reset the WirelessHART network.
Date (Mm/Dd/Yy)	Manually enter the date (mm/dd/yy)
Time (Hh:Mm:Ss)	Manually enter the time (hh:mm:ss)
Submit	Accepts all changes (highlighted in yellow).

# Setup>System Backup>Save

EMERSON. Process Management	Smart Wireless Gatewa	ay
	Save System Configuration	🔍 🛛 🕴 💼 admin
192.168.1.10 Tolognostics Monitor Security Security Take Page Options Restore Page Options Restart Apps Fernivare Options Restart Apps Fernivare Options Security Take Page Options Restart Apps Modus Security Take Page Options Restart Apps Modus Security Take	System backups contain user passwords as well as keys used for encry backups in a secure location. Children information is system backup. Save Configuration	ypting communication. Be sure to store downloaded system

Terms	Description
Include diagnostic information in system backup	Saves Gateway diagnostic log information with the system backup file.
Save	Collects the Gateway configuration data and creates a system backup file.
Configuration	This system backup file is saved on the PC client as a zip file (*.zip). System backups contain user passwords as well as keys used for encrypting communications. Be sure to store downloaded system backups in a secure location.

# Setup>System Backup>Restore

EMERSON.	Smart Wireless	Gateway	
	Restore System Configuration		👽 🕘 📔 🚋 admin
192.164.1.10     Digrossics     Monitor     Digrossics     Secury     Se	Select system backup to upload (zip file)	Browse	V U   D anni
@ Emergen 2010	Facebook	Tarres Of these	

Terms	Description
Browse	Opens a navigation window to locate a system backup file (zip file) on the PC client.
Upload Configuration	Restores the select backup file to the Gateway.
Reset Defaults	Returns the Gateway to default factory configuration.

# Setup>Page Options>Point Pages

EMERSON. Process Management	Smart Wi	reless Gateway	
	Point Monitor Pages		🔶 🛛 📔 💼 admin
192.168.1.10 Diagnostics Support Sup	Name Custom Page New Submit	Order Actions Up Down Edit Deletin Go to	

Terms	Description	
Name	Name of the custom point page (user specified).	
Order	The order in which custom point pages appear in the Monitor section of the	
	navigation menu.	
UP	Moves the associated point page up in the navigation order.	
Down	Moves the associated point page down in the navigation order.	
Actions	The actions you can perform on the associated point page.	
Edit	Navigates to the configuration of the associated page and allows the user	
	to make changes.	
Delete	Deletes the associated page.	
Go to	Navigates to the associated point page in the web interface.	
New	Starts a new custom point page.	
Submit	Accepts all changes (highlighted in yellow).	

# Smart Wireless Gateway

Setup>Page Options>Point Pages>Editing Custom Page

Editing Custom Page       Image: Custom Page         Image: Line Custom Page       Image: Custom Page         Image: Custom Page       Page Name: Custom Page         Image: Custom Page       Image: Custom Page         Image: Custom Page       Page Name: Custom Page         Image: Custom Page       Page Name: Custom Page         Image: Custom Page       Persure         Image: Persure Supply: Voltage       Up (Image: Custom Page)         Image: Persure Supply: Collage       Up (Image: Custom Page)         Image: Persure Supply: Custom Page       Persure Persure Supply: Custom Page         Image: Persure Supply: Custom Page       Search	EMERSON. Process Management	Smart Wirel	ess Gateway		
192.140.1.10         Plage Name:         Custom Page         Page Name:         Custom Page         Page Name:         Custom Page         Page Name:         Custom Page         Page Name:         Custom Page         Custom Page         Page Name:         Custom Page         Custom Page         Page Name:         Custom Page         Substance         Page Name:         Custom Page         Substance         Page Options         Paint Columns         Paint Columns         Page Columns         Page Columns         Public Page         Page Columns         Page Columns </th <th></th> <th>Editing Custom Page</th> <th></th> <th>🔍 🔍 🗎 👬 a</th> <th>admin</th>		Editing Custom Page		🔍 🔍 🗎 👬 a	admin
O Setup     Point Name     Description     Ord       *** statuck     00015 Pressue P/     Pressue     Pre	192.168.1.10 Composition Monitor Explorer	Page Name: Custom Page			
Security	Setup	O Point Name	Name	Description	Order
Stority Time System Bickup Page Options Page Options Point Columns Point Co	Ethernet protocol	3051S Pressure.PV	Pressure	Pressure	Up Down
Time Time	8 Security	3051S Pressure PV_HEALTHY	Status	Healthy	Up Down
System Backup P Page Options P Point Pages P Point Columns P Point Col	Time Time	3051S Pressure ONLINE	Comm	Online	Up Down
Page Options Page Options Point Columns Point Columns Primware Options Primware	8 🚍 System Backup	3051S Pressure SUPPLY_VOLTAGE	Volts	Supply Voltage	Up Down
	Source Deges     Source Columns     Porte Columns     Home Pages     Restart Apps     Firmware Options     Firmware Options     Modus     Modus     Modus     Modus     Modus     Modus	[cc:First]     cc:Previous       Now entry	Search .	Page 1 of 1	Ned >> Lastry

Terms	Description
Page Name	The name of this custom point page as it will appear in the navigation menu.
Point Name	Identifies the data point to display. Point Names appear in the format HARTtag.parameter
Name	User specified name for the data point.
Description	User specified description for the data point.
Order	The order in which the associated data point appears on the custom point
	page.
Up	Moves the associated data point up in the order.
Down	Moves the associated data point down in the order.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table.</td></previous<>	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
Delete selected	Removes the selected entry from this table.
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Errors	Selects all table entries with error messages.
Submit	Accepts all changes (highlighted in yellow).

# Setup>Page Options>Point Columns

EMERSON. Process Management	Smart Wireless Gateway			
	Point Monitor Columns		👽 🕘   🚋 admin	
192.148.1.10 big Diagnostics big Diagnostics big Subus c Subus	Device Device Desc Parameter Point Name (on custom pages) Value Units Status Description Status Cescription Status Icon		78 Key 4.2.5	

Terms	Description
Device	Indicates if the Device column appears as default in the monitoring point pages.
Device Desc	Indicates if the Device Desc column appears as default in the monitoring point pages.
Parameter	Indicates if the Parameter column appears as default in the monitoring point pages.
Point	Indicates if the Point column appears as default in the monitoring point pages.
Name	Indicates if the Name column appears as default in the monitoring custom point pages.
Description	Indicates if the Description column appears as default in the monitoring custom point pages.
Value	Indicates if the Value column appears as default in the monitoring point pages.
Units	Indicates if the Units column appears as default in the monitoring point pages.
Status Description	Indicates if the Status Description column appears as default in the monitoring point pages.
Status Icon	Indicates if the Status Icon column appears as default in the monitoring point pages.
Submit	Accepts all changes (highlighted in yellow).

# Setup>Page Options>Home Pages

EMERSON. Process Management	Smart Wirele	ess Gateway	
	Home Pages		🔍 💷 📔 🚋 admin
192.168.1.10 Dagnostics Setup Setup Setup Security Distribution System Backup Point Pages Point Columns Restart App Firmware Options Firmware Options Firmware Options Modus Changes Modus Modus Modus	Home P GW menu overview Custom Page Point movitor HART Status Quick Point Data Network Status Subme	age	
6 Empress 2010	Feedback	Terms Of the	

Terms	Description
GW menu overview	Indicates that the Gateway menu overview is the default home page when longing into the Gateway web based user interface
Custom Page	Indicates that the Custom Point Page is the default home page when logging into the Gateway web based user interface.
Point monitor	Indicates that the Point Monitor Page is the default home page when logging into the Gateway web based user interface.
HART Status	Indicates that the HART Status Page is the default home page when logging into the Gateway web based user interface.
Quick Point Data	Indicates that the Quick Point Data page is the default home page when logging into the Gateway web based user interface.
Network Status	Indicates that the Network Status page is the default home page when logging into the Gateway web based user interface.
Submit	Accepts all changes (highlighted in yellow).

# Setup>Restart Apps

EMERSON. Process Management	Smart Wirel	ess Gateway	
	Restart Applications	•	🐵   🙍 admin
192.168.1.10 Montor Status Status Security Security Firmare Options Firmare Options Modus Modus Modus Modus Modus	Extarting application software will result in Restart the application software now? (Vm) No	a temporary suspension of gateway operation.	
© Emerson, 2010	Feedback	Terms Of Use	

Terms	Description
Application	Software for the web user interface, program manager, operating system,
software	etc
Suspend	The Gateway will temporarily be inaccessible via the web based user
Gateway	interface. It will stop reporting Modbus or OPC values or collecting trend
Operations	data.
Restart	Software reset similar to restarting a PC. This is required for some
	configuration changes to take affect. A physical power cycle may erase
	configuration changes before they take affect.
Yes	Begins the restart process.
No	Delays the restart process, configuration changes will be stored in buffer.

# Setup>Firmware Upgrade

EMERSON. Process Management	Smart Wireless (	Gateway	
	Upgrade System Firmware		🗣 🕲 📔 💼 admin
192.168.1.10 Diagnostics Second Sec	Select a firmware release to upload (zip file)	Bons	

Terms	Description
Firmware Upgrade	Firmware (sometimes called software) Upgrade; this is a procedure for installing newer/improved firmware in the gateway. This should only be done by recommendation of your Emerson Representative. Please note: A firmware upgrade will require a restart (shut down of wireless system) be sure to carefully follow the recommended upgrade procedure that is supplied with the firmware upgrade.
Firmware Release	A firmware (sometimes called software) release by Emerson that is recommended for upgrading the gateway with new features or improvements in operation
Zip File	A zip file is a file that ends with the extension .zip, this is a compressed file to reduce its size and make it easier to share. Please note: When receiving and saving this file before upgrading do not use any program with offers to decompress or expand the zip file. The gateway will expand the zip file automatically while upgrading.
Browse	To manually look for and find the upgrade zip file. After receiving a firmware upgrade from Emerson save the zip file in a location that is accessible by the gateway. Use Browse to locate this file and select it.
Upgrade	Begins the Firmware upgrade process after the proper Firmware upgrade zip file was located using Browse.

# Setup>Firmware Options

Installed     Option     Description       AMS     Support for AMS Protocol.       Datav     Support for AMS Protocol.       Datav     Support for AMS Protocol.       Nattr:pp     Support for MAT Protocol.       Modbus/ICTU     Support for Modbus/ICTU protocol.       OPC     Support for Modbus/ICT protocol.       OPC     Support for MCP protocol.       OPC     Support for MCP protocol.       Ovation     Support for Integration with Ovation.       Select a gateway option to install     Browse.	Installed     Option     Description       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Support for MARS Protocol.       Image: Support for MARS Protocol.     Image: Suport for MARS Protocol.	Firmware Opti	ons	🔍 🕲   👸 adm
AMS Support for AMS Protocol.     Deltav     Support for integration with Deltav.     IdatT-3P     Support for MACT-3P protocol.     Modbus/RTU     Support for Modbus/RTU protocol.     OMC     Support for Modbus/RTU protocol.     OMC     Support for integration with Ovation.     Support for integration with Ovation.     Support for integration with Ovation.     Select a gateway option to instal     Submit	AMS     Support for AMS Protocol.       Detav     Support for MAT: 3P       HART: 3P     Support for MAT: 3P protocol.       Modbus/RTU     Support for Modbus/RTU protocol.       Modbus/RTU     Support for Modbus/RTU protocol.       OPC     Support for Modbus/RTU protocol.       OPC     Support for Modbus/RTU protocol.       Ovation     Support for Modbus/RTU protocol.       Secondary Ethernet     Enable secondary Ethernet interface.       Select a gateway option to instal     Browse	Insta	lled Option	Description
Image: Support for Modbus/TCP     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP     Support for Integration with Ovation.       Image: State in the support for Image: Sup	Outav     Support for MART-SP       MART-SP     Support for MART-SP protocol.       Modbuu/TCD     Support for Modbuu/ICP protocol.       Modbuu/TCP     Support for Modbuu/ICP protocol.       OPC     Support for Modbuu/ICP protocol.       Ovation     Support for integration with Ovation.       Select a gateway option to instal     Browse	e (* 1	AMS	Support for AMS Protocol.
Image: Support for Modbus//TU     Support for Modbus//TU Support for Modbus//TU protocol.       Image: Support for Modbus//TCP     Support for Modbus//TCP       Image: Support for Modbus//TCP     Support for Modbus//TCP       Image: Support for Modbus//TCP     Support for Modbus//TCP       Image: Submit for Modbus//TCP     Support for Modbus//TCP	Image: Support for Modbul/RTU     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Over for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.       Image: Support for Modbul/RTU protocol.     Support for Modbul/RTU protocol.    <		DeltaV	Support for integration with DeltaV.
Image: Subject of Modbus/TCP     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP     Support for Modbus/TCP protocol.       Image: Image: Support for Modbus/TCP protocol.     Image: Image	Image: Support for Modbus/TCP     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     OPC       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.     Support for Modbus/TCP protocol.       Image: Support for Modbus/TCP protocol.	R (1997)	HART-IP	Support for HART-IP protocol.
Image: Submit     Modbur/CP     Support for Modbur/CP protocol.       Image: OPC     Support for OPC protocol.       Image: OPC     Support for OPC protocol.       Image: OPC     Support for integration with Orazion.       Image: OPC     Select a gateway option to install	Image: Select a gateway option to install     Image: Select a gateway option to install     Image: Select a gateway option to install	R (1997)	Modbus/RTU	Support for Modbus/RTU protocol.
OPC         Support for OPC protocol.           Ovation         Support for integration with Ovation.           Secondary Ethernet         Enable secondary Ethernet interface.	OPC         Support for OPC protocol.           Ovation         Support for integration with Ovation.           Secondary Ethernet         Enable secondary Ethernet interface.   Select a gateway option to instal           Submit		Modbus/TCP	Support for Modbus/TCP protocol.
Ovation         Support for integration with Ovation.           Secondary Ethernet         Enable secondary Ethernet interface.           Select a gateway option to install         Browse.	Ovation         Support for integration with Ovation.           Secondary Ethernet         Enable secondary Ethernet interface.           Select a gateway option to install         Browse.           Submt         Submt		OPC	Support for OPC protocol.
Secondary Ethernet Enable secondary Ethernet interface. Select a gateway option to install Browse Submit	Secondary Ethernet Enable secondary Ethernet interface. Select a gateway option to install Submet			
Select a gateway option to install	Select a gateway option to install Browse		Ovation	Support for integration with Ovation.
		select a gate	Ovation Secondary Ethernet way option to install	Support for integration with Ovation. Enable secondary Ethernet interface.

Terms	Description
Firmware Options	Firmware Options are items that are normally installed by the factory; these options are called out in the initial factory order and are normally not needed to be changed in the field. This Firmware Options process allows the gateway user to reconfigure the gateway for use with different systems, which may be added in the field at a later date. Please note: A firmware upgrade may require a restart (shut down of wireless system) be sure to carefully follow the recommended firmware options procedure that is supplied with the firmware option's file.
Gateway Option	A file with the extension .txt that has been supplied by your Emerson representative specifically to make an operational interface change for this particular gateway. Option files are issued for specific gateways by serial number and can be used only by the gateway with that specific serial number. Option files are reusable in the appropriate gateway. Please note: The Firmware option file changes the gateway's factory defaults to the new option settings. Contact your Emerson representative for an option file if one is needed.
Installed	Shows gateway interface options that are currently installed. A check mark in the box indicates that a particular interface option has been installed. No check indicates it has not. Please note: Not all interface options are compatible with one another; so if some boxes are not checked that is appropriate.
Option	These are various interfaces that can be used to communicate with the gateway. A short definition of the interface is in the column labeled "Description."
Description	A short definition of each user interface option available in the gateway.
Browse	To manually look for and find the firmware option file (.txt). After receiving a firmware upgrade from Emerson save the zip file (do not unzip it) in a location that is accessible by the gateway. Use Browse to locate this file and select it.
Submit	Begins the Firmware option process after the proper firmware options file was located using Browse.

# Setup>HART> Gateway

EMERSON. Process Management	Smart	Wirele	ss Gateway	/	
	HART Gateway Setup			0	🕘   🙍 admin
192.168.1.10 Diagnostics Setup Setup Security Time System Backup Page Options Restart App Firmare Options Firmare Options Changes Changes Modusis Security Changes Modusis Security Conc	Use Ethernet protocol host Gateway name HART master type Network retry count Subm	name for gateway whatge O Primary S	name © Secondary		
© Emerson, 2010	Feed	back	Term	s Of Use	

Terms	Description
Use internet	Uses the hostname field under the Internet protocol page to replace the
protocol	Gateway name. This is a one time action that happens when the box is
hostname for	checked. Further hostname changes will not be reflected on this page
gateway name	unless the box is rechecked.
Gateway Name	HART Tag for the Gateway.
HART Master	Indicates whether the Gateway is communicating as the HART primary or
Туре	secondary master. Most host systems operate as a secondary master and
	leave primary master status to a handheld device.
Primary	The Gateway will have priority status when issuing commands to wireless
	field devices.
Secondary	The Gateway will yield to commands given to the wireless field device by a
	primary master.
Network Retry	Number of times the Gateway will attempt to resend a message when it
Count	does not get a confirmation.
Submit	Accepts all changes (highlighted in yellow).

# Setup>HART>Device

	HART Device Setup					•	👂   🙍 admi	'n	
8.1.10 nostics itor	Device ID 00-18-15-26-59-6A-D8-04	HART Tag	Short Tag	Descriptor	Units	•	Burst Rate	Delete	% Rang
orer	00-18-1E-26-58-6A-D9-DC	643 Temperature	( THEORY		DegC	~	00.01.00		Edit.
otocol	<u>00-18-18-26-5A-7A-18-51</u>	702 Discrete					00.01.00	0	(Edt.)
ptions t Apps	Les Enst								
mware Upgrade mware Options IRT Gateway Hierarchy Hierarchy hanges offlus	Submit		Search	Page	1 of 1				

Terms	Description
Device ID	Unique device identification number. All WirelessHART devices should begin with 00-1E-1B. The next 4 digits represent the device type. The last 6 vary from device to device.
HART Tag	Configures the HART long tag (32 characters) or HART message (32 characters, only used for HART 5 wired devices connected via a WirelessHART adapter)
Short Tag	Configures the HART tag (8 characters). Typically used for short displays like a local LCD.
Descriptor	Configures descriptive message. (16 characters).
Units	Configures the engineering units of measure.
Burst Rate	Configures the interval in which the wireless field devices transmit measurement data to the Gateway.
Delete	Removes the wireless field device from the WirelessHART network.
% Range	Percentage of user defined range associated with the HART primary variable.
Edit	Configure the lower range limit and upper range limit.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table.</td></previous<>	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
Submit	Accepts all changes (highlighted in yellow).

# Setup>HART> Hierarchy

HART device hierarchy     Image: Constraint of the second of	EMERSON. Process Management	Smart Wireless Gateway		
192.148.1.10 Cuprostics Cuprostice Cup		HART device hierarchy		🔍 🕲 📔 💼 admin
© Rearbox, 2010 Feedback Terms Of Use	192.164.1.10 Guigensatus Setus Setus Secury System Backup Page Options Restart Apg Page Options Firmware Options Firmware Options Changes Changes Mature Changes Mature Changes	Include gateways Include adapters Satera	OYes ⊗No OYes ⊗No	

Terms	Description
Include Gateways	Enables the Gateway to be seen as a field device on device specific pages (monitor, explorer, etc)
Include Adapters	Enables WirelessHART adapters (Smart Wireless THUM adapter) to be seen as a field device on device specific pages (monitor, explorer, etc)
Submit	Accepts all changes (highlighted in yellow).

# Setup>Changes

EMERSON

## Smart Wireless Gateway

	Changes		•	2 🔟 admin	
192.168.1.10	Description	From	То	Requested	Status
8 🚔 Monitor - 🎕 Explorer	Changing network retry count for myNet	3 network retries	5 network retries	07/19/10 09:45:21	•
	Changing master type for myNet	Primary	Secondary	07/19/10 09:45:21	•
B Setup	Changing network security mode for myNet	Common	ACL	07/19/10 09:19:55	•
Ethernet protocol	Changing join key for myNet	44555354 4e455457 4f524b53 524f4341	960a7610 1c2ccdec 5aaca89a 3f7ce637	07/19/10 08:48:14	•
Time	Changing join key for myNet	44555354 4e455457 4f524b53 524f434b	44555354 4e455457 4f524b53 524f4341	07/19/10 08:32:30	•
Session Backup Page Options Restart Apps Firmware Options Restart Apps Firmware Options Restart Apps Humare Options Restart Apps Restart Apps Rest					

Terms	Description
Description	Provides a description of what changes have been submitted.
From	Initial value.
То	Final value.
Requested	Timed the change was submitted.
Status	Indicates if the change has been successful, is in process, or has failed.

# MODBUS

#### Setup>Modbus> Communication

	Hodbus Communication	
rcc-rev4 Or Diagnostics	One Hodbus Address     Multiple Modbus Addresses	T
Explorer Setup Antivetwork	Modbus TCP Port Based Rate Parity Stop Bits	502 19300 • None • Even © Odd • 1 © 2
Time System Backup Page Options	Response desay time (ma) Unmapped register read response? Unmapped register write response?	Eero M C Blegal data addr C CK: # Blegal data addr
Restart Apps     Firmware Upgrade     Firmware Options	Positing point representation the swapped floating point format?	● Float © Round © Scale © Yes ● No
Changes	Value reported for error (floating point)	# Yes CNo C NaN C +Inf C -Inf # Other #11
Modbus My Modbus	Value reported for error (rounded and native integer) Scaled floating point maximum integer value	4000
Import/Export	Use global scale gain and offset? Global scale gain	T Yes No
	Global scale offset	0.0

Terms	Description
One Modbus Address	Selects a single Modbus RTU slave address to be used.
Multiple Modbus Addresses	Allows multiple Modbus RTU slave address to be used. These addresses are configured per point in the Modbus mapping page.
Modbus TCP Port	The TCP Port used to access Modbus TCP data directly from the Gateway. Note this is a different port than the SSL enabled Modbus TCP data.
Baud Rate	Communication speed for Modbus RTU.
Parity	Selects whether parity is used for Modbus RTU messages and whether it is even or odd.
Stop Bits	Sets the number of stop bits for Modbus RTU messages.
Response delay	After receiving a request, the Gateway will wait this long before it sends a
time (ms)	response.
Unmapped	The response the Gateway sends if no point data is mapped to the register
register read	during a read request. The Gateway can either return zero for the
response?	requested register or Illegal data addr.
Unmapped	The response the Gateway sends if no point data is mapped to the register
register write	during a write request. The Gateway can either return OK for the write
response?	request or Illegal data addr.
Floating Point	The format that Modbus data is given.
Representation	
Float	Floating point number that is given over two 16 bit Modbus registers.
Round	Rounded integer that is given over one 16 bit Modbus register. If the measured value = 2711.97, the rounded value = 2712.
Scale	Scaled integer that is given over one 16 bit Modbus register. The Gateway uses the equation $y=Ax-(B-32768)$ . $y =$ scaled integer returned by the Gateway, A = gain, x = measured value, B = offset.
Use swapped floating point format?	Reverses which significant register used in a floating point representation.
Incorporate value's associated status as error?	If the HART variable status indicates a critical failure or if there is a loss of communications, it will be reported through the Modbus register.

Terms	Description
Value reported for error (floating point)	Chooses what value is reported if the value's associated status indicates a critical failure. Only used if the Gateway is using float representation.
NaN	Not a number is reported if the value's associated status indicates a critical failure.
+Inf	Positive infinity is reported if the value's associated status indicates a critical failure.
-Inf	Negative infinity is reported if the value's associated status indicates a critical failure.
Other	User defined value is reported if the value's associated status indicates a critical failure.
Value reported for	User defined value is reported if the value's associated status indicates a
error (rounded or	critical failure. Only used if the Gateway is using rounded or scaled
native integer)	representation
Scaled floating point maximum integer value	Highest integer proportional to the measured value. Default = 65534. This is generally the highest integer value accepted by the host system.
Use global scale	Determines if scaled integers use the Global scale gain and offset or
gain and offset?	unique gain and offsets for each measured value.
Global Scale Gain	Gain used by all measured values for scaled integers. The Gateway uses the equation $y=Ax-(B-32768)$ . $y =$ scaled integer returned by the Gateway, A = Global scale gain, x = measured value, B = Global scale offset.
Global Scale	Offset used by all measured values for scaled integers. The Gateway uses
Offset	the equation $y=Ax-(B-32768)$ . $y =$ scaled integer returned by the Gateway, $A =$ Global scale gain, $x =$ measured value, $B =$ Global scale offset.

# Setup>Modbus> Mapping

EMERSON. Process Management	Si	mart Wireless	Gateway		
	Modbus Register	Мар		🍳 🕲 🕴 💼 a	dmin
192.168.1.10     Diagnostics     Monitor     Secury     Secury     Page Options     Restart Apps     Page Options     Restart Apps     Page Options     Restart Apps     Changes     Modular     Pimmare Upgrade     Pimmare Options     Modular     Pimmare Options     Pimmare Optimmare     Pimmare Optimmare	Register           0000           10002           00004           20005           20007           20007           20007           20007           20007           20007           20007           20007           20007           20007           20007           20007           20007           Submit	Point Rame           0515 Pressue PV_FEA,ThY           30515 Pressue ONLINE           645 Temperature PV_FEA,ThY           645 Temperature PV_FEA,ThY           645 Temperature PV_FEA,ThY           5015 Pressue SUPPLY_VOLTAGE           645 Temperature PV           5015 Pressue SUPPLY_VOLTAGE           645 Temperature SUPPLY_VOLTAGE           648 Temperature SUPPLY_VOLTAGE           58ect         None           Select         None	Tre     T	Show/Hide System Register	Invert

Terms	Description
Show / Hide	Shows/Hides predefined system registers. 49001 = current year, 49002 =
System Registers	current month, 49003 = current day, 49004 = current hour, 49005 = current
	minute, 49006 = current second, 490007 = messages received
Address	Modbus RTU slave address. Only used if multiple Modbus addresses is
	selected on the Modbus Communication page.
Register	Memory location used to reference point data via Modbus protocol.
	Modbus holding register.
Point Name	Assigned data point in the format HARTtag.parameter.
State	For Booleans, indicates which value will be reported as a 1. For integers,
	identifies a particular bit to be reported as a 1. Reserved for registers less
	than 20000.
Invert	Switches the 0 or 1 response for discrete state values.
Gain	Unique register gain used for scaled integer format. Not used if global
	scale gain and offset is selected on the Modbus Communication page.
Offset	Unique register offset used for scaled integer format. Not used if use global
	scale gain and offset is selected on the Modbus Communication page.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table.</td></previous<>	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
New Entry	Creates a new entry in this table.
Delete Selected	Removes the selected entry from this table.
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Errors	Selects all table entries that have an error message.
Submit	Accepts all changes (highlighted in yellow).

# Setup>Modbus> Import/Export

EMERSON. Process Management	Smart Wirel	ess Gateway	
	Import/Export Modbus Register Map		🔍 💷   🚋 admin
192.168.1.10     Diagnostics     Monitor     Support     Supp	Select file to upload (csv file)	Browsead Configuration	
© Emergeo 2010	Feedback	Terms Of the	

Terms	Description
CSV file	Comma delimited or comma separated file format.
Browse	Opens a navigation window to locate a Modbus mapping backup file (CSV
	file) on the PC client.
Upload	Restores the selected Modbus mapping backup file to the Gateway.
Configuration	
Download	Collects the Gateway Modbus mapping data and creates a backup file.
Configuration	This Modbus mapping backup file is saved on the PC client as a CSV file
	(*.CSV).

# OPC

#### Setup>OPC>Browse Tree

EMERSON.	Smart Wireless Ga	iteway	
	OPC Browse Tree		🍳 🕘 🛛 💼 admin
192.168.1.10     Dagnostics     Subor     Setup     Setup	Point Name       30515 Pressure PV       00515 Pressure SUPPLY_NOLTAGE       00515 Pressure SUPPLY_NOLTAGE       (cr. Forz)     cr. Paevicos       (cr. For	• △ Page 1 of 1	Add all PV  String Value
© Emerson, 2010	Feedback	Terms Of Use	

Terms	Description
Add all PV	Inserts a new table entry for the primary value of every wireless field
	device.
Point Name	Assigned data point in the format HARTtag.parameter.
String Value	Cause point data to be represented in a string of characters rather than the
	default 32 bit floating point.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
<< Previous	Navigates to the previous page of this table.
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
New entry	Creates a new entry in this table.
Delete selected	Removes the selected entry from this table.
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Errors	Selects all table entries that have an error message.
Submit	Accepts all changes (highlighted in yellow).

# Setup>OPC> Import/Export

EMERSON. Process Management	Smart Wirel	ess Gateway	
	Import/Export OPC Browse Tree		🔍 🔍 🗍 👸 admin
192.164.110 Liggiostics Support Supp	Select file to upload (csv file)	Browse	

Terms	Description
CSV file	Comma delimited or comma separated file format.
Browse	Opens a navigation window to locate an OPC browse tree backup file
	(CSV file) on the PC client.
Upload	Restores the select OPC browse tree backup file to the Gateway.
Configuration	
Download	Collects the Gateway OPC browse tree data and creates a backup file.
Configuration	This OPC browse tree backup file is saved on the PC client as a CSV file
	(*.CSV).

# ETHERNET/IP<sup>™</sup>

#### Setup>EtherNet/IP> **EtherNet/IP Mapping**

EMERSON.



Terms	Description
Input Instance	EtherNet/IP Input Static Assembly Instance - 496 bytes.
Output Instance	EtherNet/IP Output Static Assembly Instance - 496 bytes.
Member	EtherNet/IP Instance Member in which data will get produced or
	consumed.
Point Name	Assigned data point in the format HARTtag.parameter.
New entry	Creates a new entry in this table.
< <first< td=""><td>Navigates to the first page of this table.</td></first<>	Navigates to the first page of this table.
< <previous< td=""><td>Navigates to the previous page of this table</td></previous<>	Navigates to the previous page of this table
Search	Finds the next occurrence of the characters entered into this field.
Next>>	Navigates to the next page of this table.
Last>>	Navigates to the last page of this table.
Delete Selected	Removes the selected entry from this table.
Select All	Selects all table entries.
Select None	Deselects all table entries.
Select Errors	Selects all table entries that have an error message.
Submit	Accepts all changes (highlighted in yellow).

## Setup>EtherNet/IP> EtherNet/IP Communication

EMERSON. Process Management	Smart Wirele	ess Gateway
	EtherNet/IP Communication	🔍 🕲   👸 admin
10.129.170.135	Assembly Object Type EtherNet/IP TCP Port EtherNet/IP TCP Ports Incorporate value's associated status as error? Value reported for error (floating point) Value reported for error (native integer)	Static 44818,2222 • Yes O No • NaN • +3nf • -1nf • Other 2777 2777
© Emerson, 2011	Feedback	Terms Of Use FW Rev: 4.4.5

Terms	Description
Assembly Object Type	EtherNet/IP use Static assembly object.
EtherNet/IP TCP	The TCP Port used to access EtherNet/IP TCP data directly from the
Port	Gateway.
EtherNet/IP UDP	The UDP Ports used to access EtherNet/IP UDP data directly from the
Ports	Gateway.
Incorporate value's	If the HART variable status indicates a critical failure or if there is a loss of communications, it will be reported through the EtherNet/IP member.
associated status	
dS EITUI ?	Chappen what value is reported if the value's paperisted status indicates a
value reported for	chooses what value is reported if the Cotoway is using float representation
enor (noating	childar failure. Only used if the Galeway is using hoat representation
NaN	Not a number is reported if the value's associated status indicates a critical failure.
+Inf	Positive infinity is reported if the value's associated status indicates a critical failure.
-Inf	Negative infinity is reported if the value's associated status indicates a critical failure.
Other	User defined value is reported if the value's associated status indicates a critical failure.
Value reported for	User defined value is reported if the value's associated status indicates a
error (native	critical failure. Only used if the Gateway is using integer representation
integer)	

#### Setup>EtherNet/IP> Import/Export



Terms	Description
CSV file	Comma delimited or comma separated file format.
Browse	Opens a navigation window to locate a EtherNet/IP mapping backup file (CSV file) on the PC client.
Upload Configuration	Restores the select EtherNet/IP mapping backup file to the Gateway.
Download Configuration	Collects the Gateway EtherNet/IP mapping data and creates a backup file. This EtherNet/IP mapping backup file is saved on the PC client as a CSV file (*.csv).

#### Diagnostics > Advanced > EtherNet/IP Stats

# <image>

Terms	Description
Message	Total number of class 3 Received messages.
Received	
Message Sent	Total number of class 3 Sent messages.
UCMM Received	Total number of UCMM Received messages.
UCMM Sent	Total number of UCMM Sent messages.
UCMM Error	Total number of failed UCMM Read/Write Request.
Response	
I/O Packets	Total number of received class 1 packets.
Received	
I/O Packets Sent	Total number of sent class 1 packets.
I/O Packets	Number of packets that's failed to sent.
Failed to Sent	
I/O Packets	Number of packets that's failed to receive.
Received Error	
Active	Total number of connections that are established with EtherNet/IP Adapter
connections	(Smart Wireless Gateway).
Current I/O	Shows total number of active Class 1 connections.
Message	
Connections	
Current CIP	Shows total number of active Class 3 connections.
Message	
Connections	
Reset Counts	Clicking on this button will reset all EtherNet/IP Statistics counts to zero.

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