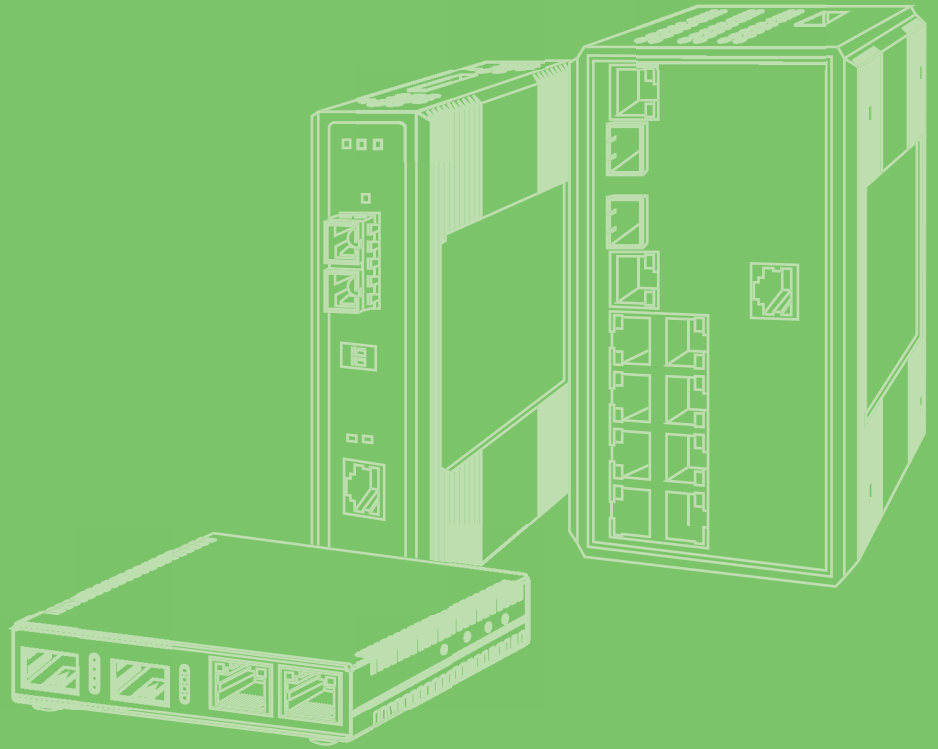


User Manual



IMC-595MPI

Industrial 4TX/1SFP
Light Managed PoE
BT Media Converter

ADVANTECH

Enabling an Intelligent Planet

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5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Technical Support and Assistance

1. Visit the Advantech web site at www.advantech.com/support where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Warnings, Cautions and Notes

Warning! *Important safety instructions save these instructions - this manual contains important safety instructions.*



Caution! *For use in a controlled environment. Refer to manual for environmental conditions.*



Note! *Notes provide optional additional information.*



Document Feedback

To assist us in making improvements to this manual, we would welcome comments and constructive criticism. Please send all such - in writing to:
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Packing List

Before setting up the system, check that the items listed below are included and in good condition. If any item does not accord with the table, please contact your dealer immediately.

- 1 x industrial media converter
- 2 x wall-mounting brackets
- 1 x power adapter (SKU dependent)

Safety Instructions

- Read these safety instructions carefully.
- Keep this User Manual for later reference.
- Disconnect this equipment from any DC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
- For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
- Keep this equipment away from humidity.
- Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
- The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
- PoE fully loaded devices can reach surface temperatures in excess of 90°C (194°F). Disconnect the device and allow a period of time to pass before touching the surface to prevent injury.
- Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- All cautions and warnings on the equipment should be noted.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.
- Never pour any liquid into an opening. This may cause fire or electrical shock.
- Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
- If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
- **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO -40°C (-40°F) ~ 85°C (185°F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**

Wichtige Sicherheitshinweise

- Bitte lesen sie Sich diese Hinweise sorgfältig durch.
- Heben Sie diese Anleitung für den späteren Gebrauch auf.
- Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie Keine Flüssig-oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.
- Die NetzanschlUBsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
- Das Gerät ist vor Feuchtigkeit zu schützen.
- Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen.
- Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor überhitzung schützt. Sorgen Sie dafür, daB diese Öffnungen nicht abgedeckt werden.
- Beachten Sie beim. AnschluB an das Stromnetz die AnschluBwerte.
- Verlegen Sie die NetzanschlUBleitung so, daB niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
- Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
- Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
- Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
- Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
- Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
 - Netzkabel oder Netzstecker sind beschädigt.
 - Flüssigkeit ist in das Gerät eingedrungen.
 - Das Gerät war Feuchtigkeit ausgesetzt.
 - Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
 - Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.

Safety Precaution - Static Electricity

Static electricity can cause bodily harm or damage electronic devices. To avoid damage, keep static-sensitive devices in the static-protective packaging until the installation period. The following guidelines are also recommended:

- Wear a grounded wrist or ankle strap and use gloves to prevent direct contact to the device before servicing the device. Avoid nylon gloves or work clothes, which tend to build up a charge.
- Always disconnect the power from the device before servicing it.
- Before plugging a cable into any port, discharge the voltage stored on the cable by touching the electrical contacts to the ground surface.

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Chapter 1

Product Overview

1.1 Features and Configuration

The IMC-595MPI is a Dual Channel 802.3bt Media Converter which supplies 2 ports with max. 90W power output at extended temperature with compact size. It supports Link Fault Pass Through (LFPT) and Force-Power functionality. It allows flexible topology by switching from injector mode to switch mode.

IMC-595MPI features include:

- Versatile 5-port, total up to 180W power output media converter at extended temperature
- Supports Switch/Injector mode setting by SNMP/iView
- Supports SNMP/iView for remote management
- Dip switch for LFPT and Power Force mode
- Supports LLDP
- Supports Jumbo Frames up to 9,216 bytes
- Supports Modbus TCP
- Supports Broadcast Storm Control ON/OFF

1.2 Specifications

Specifications	Description	
Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af/at/bt, 802.3ab, 802.3z
	LAN	4 x 10/100/1000 Mbps (RJ-45)+ 1 x 100/1000 Mbps (SFP)
	Transmission Distances	See product startup manual
	Transmission Speed	Up to 1000 Mbps
	Interface	Connectors
Interface	DIP Switch	<ul style="list-style-type: none"> ■ PIN1 PoE Force Mode: ON/OFF (default OFF) ■ PIN2 LFPT: ON/OFF (default ON)
	LED Indicators	<ul style="list-style-type: none"> ■ System/Status/PoE ■ UTP: Speed/LNK/ACT ■ Fiber(P5): LNK/ACT
	Physical	Dimensions (W x H x D)
Physical	Mounting	Wall, DIN-rail
	Weight	
Environment	Operating Temperature	<ul style="list-style-type: none"> ■ IMC-595MPI-A: -40 ~ 75°C (-40~167°F) ■ IMC-595MPI-PS-A: -10 ~ 40°C (-14~104°F)
	Storage Temperature	<ul style="list-style-type: none"> ■ IMC-595MPI-A: -40 ~85°C (-40~185°F) ■ IMC-595MPI-PS-A: -10 ~ 40°C (-14~104°F)
	Operating Humidity	-40 ~ 85°C (-40 ~ 185°F)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	<ul style="list-style-type: none"> ■ IMC-595MPI-A: 699,158 hours ■ IMC-595MPI-PS-A: 244,570 hours

Specifications	Description	
Power	Power	■ IMC-595MPI-A: 182W
	Consumption	■ IMC-595MPI-PS-A: 122W
	Power Input	55~57VDC
	Power Output	■ 2 x Gigabit PoE, total 120W with AC adapter ■ 2 x Gigabit PoE, total 180W with DC power supply
	Connectors	2P Pluggable Terminal Block, DC Jack
Certification	EMI	CE, FCC Class A
	EMS	■ EN 61000-4-2
		■ EN 61000-4-3
		■ EN 61000-4-4
		■ EN 61000-4-5
		■ EN 61000-4-6
	■ EN 61000-4-8	
Shock	IEC 60068-2-27	
Freefall	Federal Standard 101 Method 5007 Testing procedure B	
Vibration	IEC 60068-2-6	

1.3 Dimensions

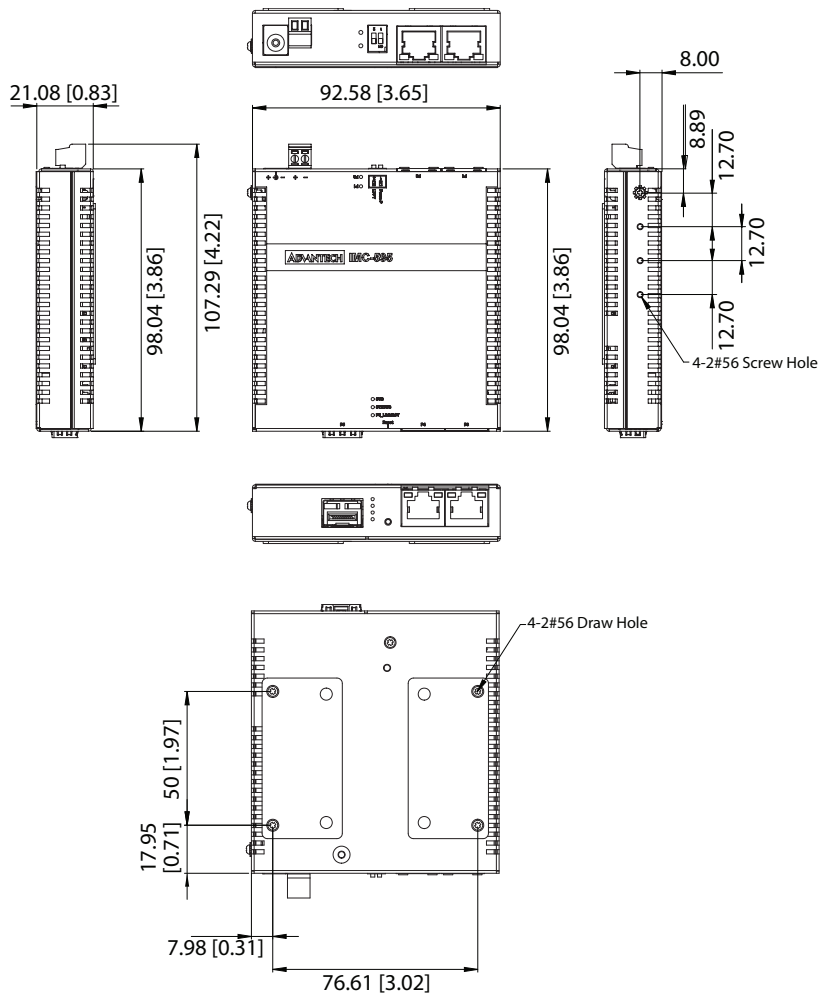


Figure 1.1 Dimensions

1.4 Hardware Views

1.4.1 Front View

The following view applies to IMC-595MPI-A & IMC-595MPI-PS-A.

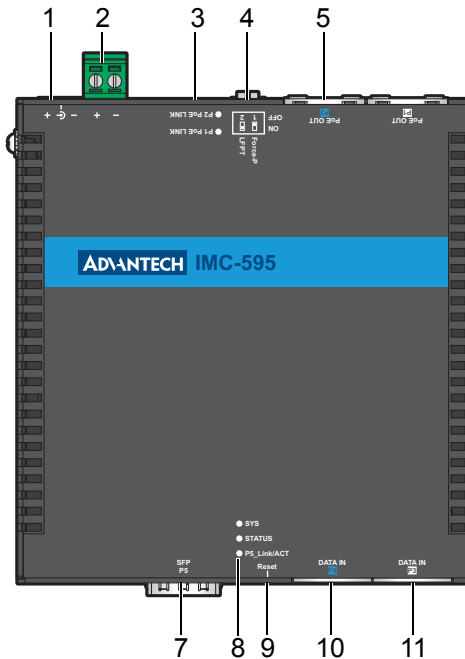


Figure 1.2 Front View

No.	Item	Description
1.	Power	AC adapter in, supports 100 ~ 240 VAC, 50 ~ 60 Hz.
2.	Power	Terminal block (DC power in), connect cabling for power.
3.	PoE LED	Power ON/OFF.
4.	DIP switch	Two-position DIP Switch. Use a small, flat-blade screwdriver (or similar device) to set the DIP switches according to requirements.
5.	ETH port	P2: 802.3 bt PoE port (DATA + PoE OUT).
6.	ETH port	P1: 802.3 bt PoE port (DATA + PoE OUT).
7.	SFP port	P5: SFP Cage.
8.	System LED panel	See "System LED Panels" on page 7 for further details.
9.	Reset button	Button allows for system soft reset or factory default reset.
10.	ETH port	P4: RJ45 port (DATA IN).
11.	ETH port	P3: RJ45 port (DATA IN).

1.4.2 Rear View

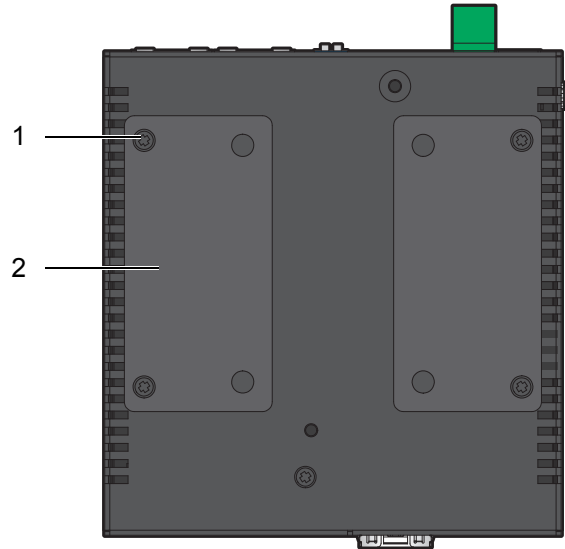


Figure 1.3 Rear View

No.	Item	Description
1.	Wall mounting hole	Screw holes (x4) used in the installation of a wall mounting plate.
2.	Wall-mounting plate	Mounting plate used to affix to a wall.

1.4.3 Side View 1

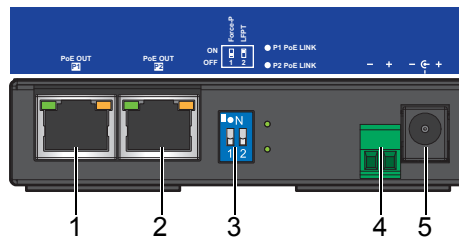


Figure 1.4 Side View 1

No.	Item	Description
1.	ETH port	P1: 802.3 bt PoE port (DATA + PoE OUT).
2.	ETH port	P2: 802.3 bt PoE port (DATA + PoE OUT).
3.	DIP switch	There are two pins on the DIP switch for settings to enable configuration of force power and LFPT functions. A flat-blade screwdriver (or similar device) can be used to set the DIP switches according to requirements.
4.	Terminal block (DC power in)	55 ~ 57 VDC
5.	AC adapter in	Input: 100-240V 50/60Hz Output: 56 VDC

1.4.4 Side View 2

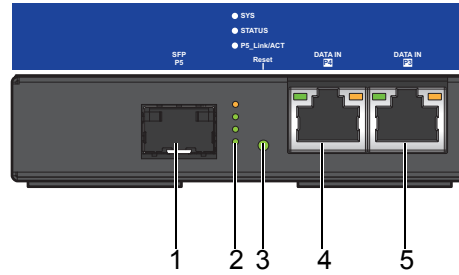


Figure 1.5 Side View 2

No.	Item	Description
1.	SFP port	P5: SFP Cage.
2.	System LED panel	See “System LED Panels” on page 7 for further details.
3.	Reset button	Button allows for system soft reset or factory default reset.
4.	ETH port	P4: RJ45 port (DATA IN).
5.	ETH port	P3: RJ45 port (DATA IN).

1.4.5 Left View

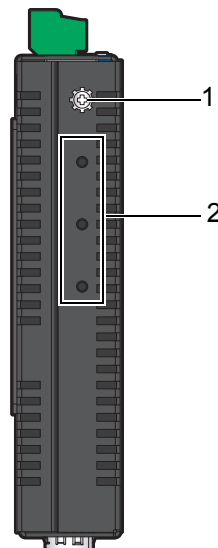


Figure 1.6 Left View

No.	Item	Description
1.	Ground terminal	Screw terminal used to ground chassis.
2.	DIN-rail holes	Screw holes (3) used for DIN rail clips.

1.4.6 System LED Panels

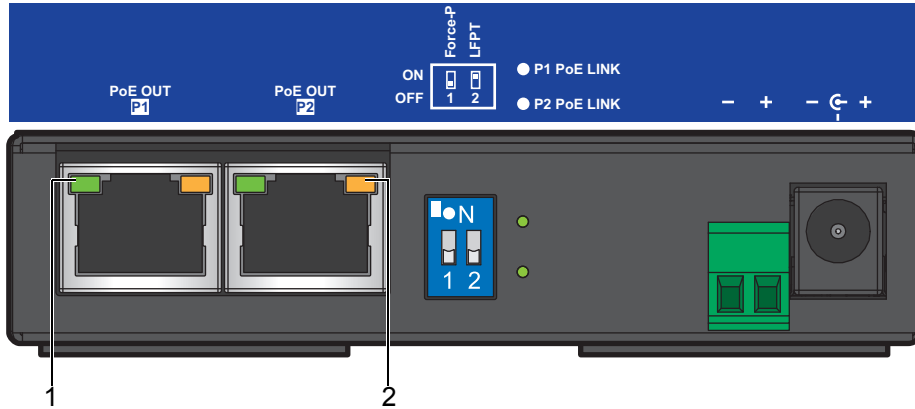


Figure 1.7 Side View 1

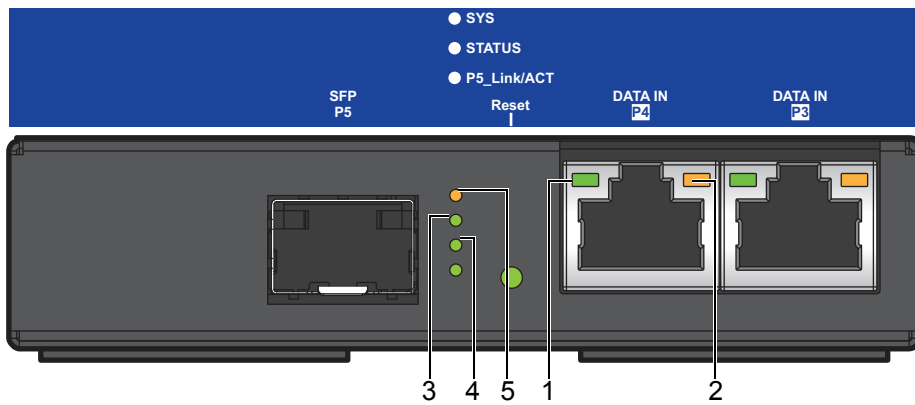


Figure 1.8 Side View 2

No.	Item	Color	Location	Description
1.	1~4 cooper ports	Solid green	Left	Ethernet port linked
		Blinking green		Ethernet port initiating
		Off		No link
2.	1~4 cooper ports	Solid green	Right	ETH port speed at 1000M (Giga)
		Solid orange		ETH port speed at 100M
		Off		ETH port speed with 10M
3.	Status	Solid green		Status normal
		Off		Status abnormal
4.	P5_SFP LINK/ACT	Solid green		SFP port linked
		Blinking green		SFP port initiating
		Off		SFP port disconnected/link down
5.	Sys	Solid green		System powered up
		Off		System powered down

Chapter 2

Converter Installation

2.1 Installation Guidelines

The following guidelines are provided to optimize the device performance. Review the guidelines before installing the device.

- Make sure cabling is away from sources of electrical noise. Radios, power lines, and fluorescent lighting fixtures can interference with the device performance.
- Make sure the cabling is positioned away from equipment that can damage the cables.
- Operating environment is within the ranges listed range, see “Specifications” on page 2.
- Relative humidity around the converter does not exceed 95 percent (noncondensing).
- Altitude at the installation site is not higher than 10,000 feet.
- In 10/100 and 10/100/1000 fixed port devices, the cable length from the converter to connected devices can not exceed 100 meters (328 feet).
- Make sure airflow around the converter and respective vents is unrestricted. Without proper airflow the converter can overheat. To prevent performance degradation and damage to the converter, make sure there is clearance at the top and bottom and around the exhaust vents.

2.2 Installing the Media Converter

2.2.1 Wall-Mounting

The IMC-595MPI can mount on a wall mount bracket, see the following illustration. To install on a wall:

1. Remove the securing screws on the plates, and remove the plates.

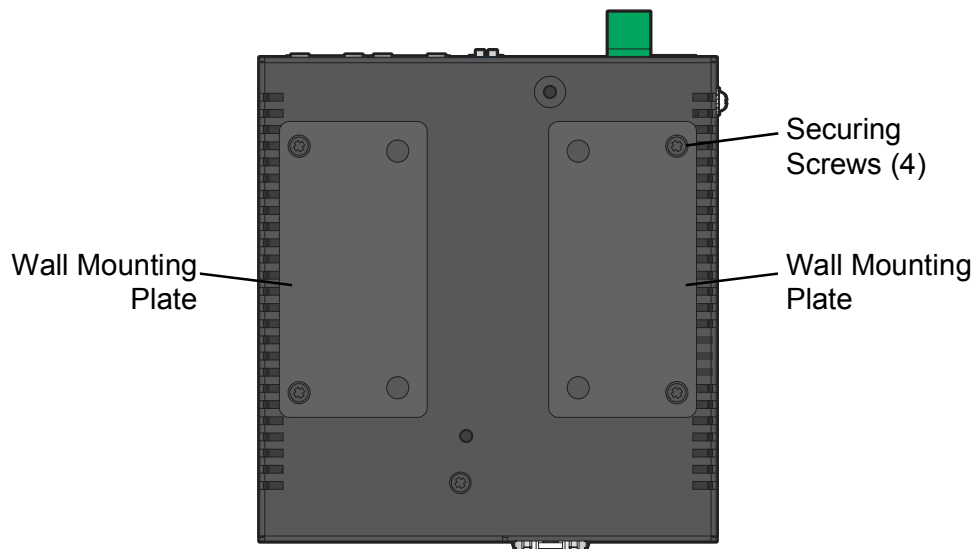


Figure 2.1 Removing Wall Mount Plates

2. Position the wall mounting plates on the converter.

- Secure the plates with the screws (M3).

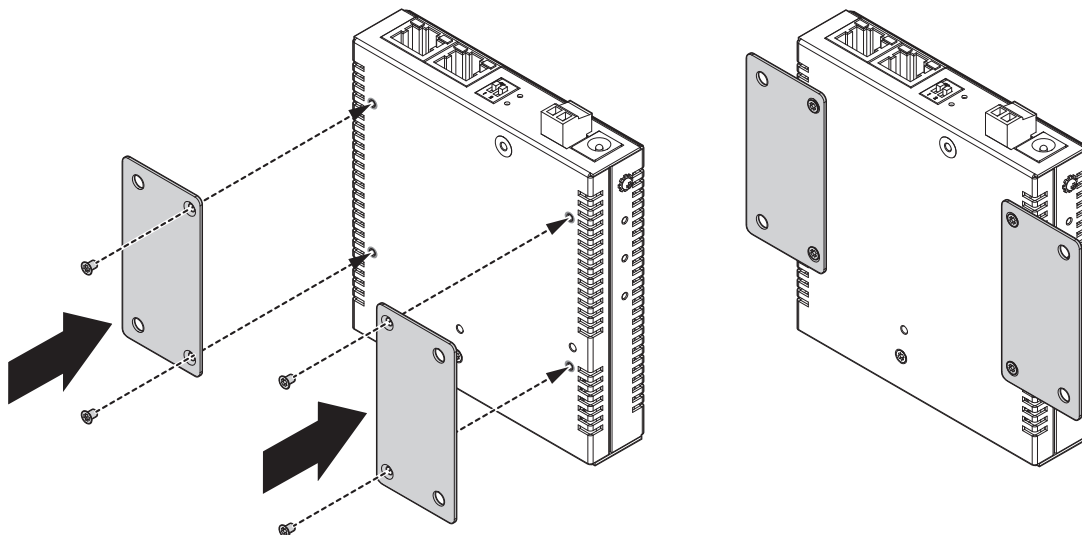


Figure 2.2 Installing Wall Mount Plates

- Locate the installation site and place the switch against the wall, making sure it is the final installation location.
- Use the wall mount plates as a guide to mark the locations of the screw holes.
- Drill four holes over the four marked locations on the wall, keeping in mind that the holes must accommodate wall sinks in addition to the screws.
- Insert the wall sinks into the walls.
- Insert the screws into the wall sinks. Leave a 2 mm gap between the wall and the screw head to allow for wall mount plate insertion.

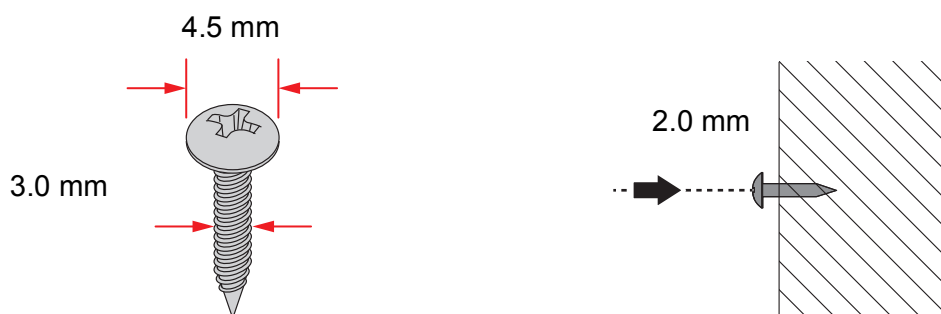


Figure 2.3 Securing Wall Mounting Screws

- Note!**
- Make sure the screws dimensions are suitable for use with the wall mounting plate.
 - Do not completely tighten the screws into the wall. A final adjustment may be needed before fully securing the wall mounting plates on the wall.

- Re-position the converter over the location. Ensure the power connector is facing up.

10. Install the converter on the wall, and secure with the screws.

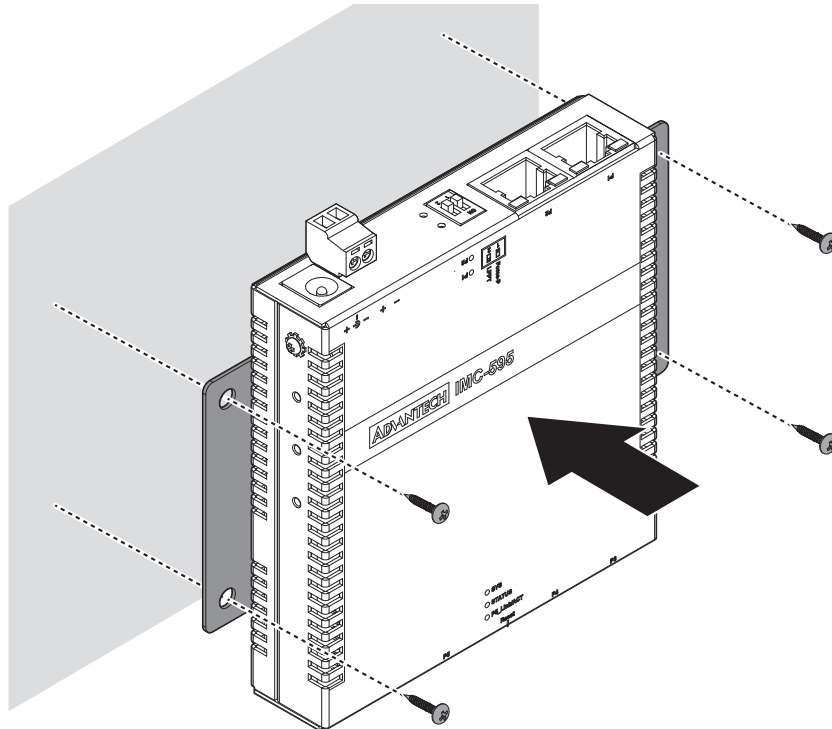


Figure 2.4 Wall Mount Installation

11. Once the device is installed, tighten the four screws for better stability.

Note! *Make sure the screws dimensions are suitable for use with the wall mounting plate.*



Do not completely tighten the screws into the wall. A final adjustment may be needed before fully securing the wall mounting plates on the wall.

2.2.2 DIN-Rail Mounting

The DIN rail mount (optional) is the quickest installation option. Additionally, it optimizes the use of rail space.

The metal DIN rail kit (optional) is secured to the rear of the switch. The device can be mounted onto a 40.6mm (1.6") x 14.5 mm (0.57") height DIN rail. The devices can be mounted vertically or horizontally. Refer to the following guidelines for further information.

Note! *A corrosion-free mounting rail is advisable.*



When installing, make sure to allow for enough space to properly install the cabling.

2.2.2.1 Installing the DIN-Rail Mounting Kit

To install the converter on a DIN-rail:

1. Position the converter so the power terminal is facing up as seen in the following figure.

Warning! Do not install the DIN rail under or in front of the spring mechanism on the DIN rail clip to prevent damage to the DIN rail clip or the DIN rail.



Make sure the DIN rail is inserted behind the spring mechanism.

2. The converter is designed with 3 mounting screw holes for easier installation. Select the two for installation and align the DIN-rail clip can over them. Ensure the top of the clip is facing up as seen in the following figure.
3. Secure the clip to the converter with the screws.

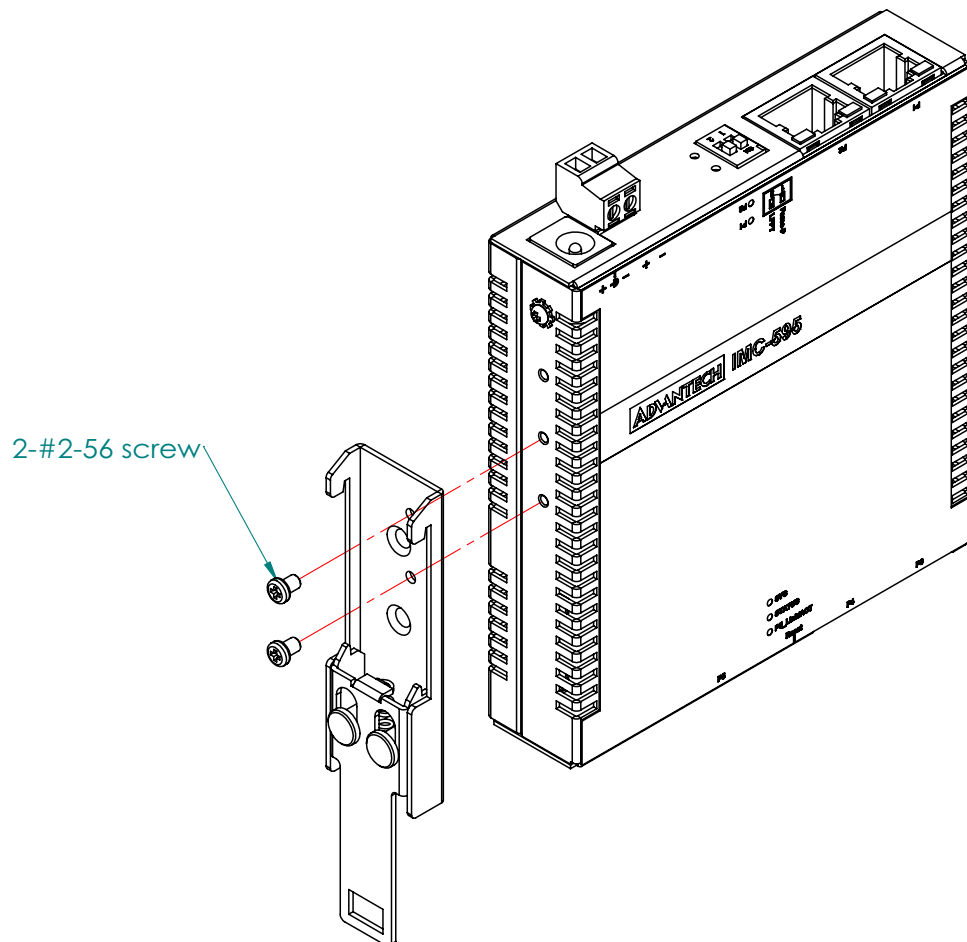


Figure 2.5 Installing the DIN-rail Mounting Kit

4. Position the rear panel of the switch directly in front of the DIN rail, making sure that the top of the DIN rail clip hooks over the top of the DIN rail, as shown in the following illustration.

Warning! Do not install the DIN rail under or in front of the spring mechanism on the DIN rail clip to prevent damage to the DIN rail clip or the DIN rail.



Make sure the DIN rail is inserted behind the spring mechanism.

5. Align the top of the DIN-rail clip with the top track on the DIN-rail and insert the top of the clip in the track, see the following figure.

6. Lightly press the bottom of the converter to rotate it and engage the locking clip on the DIN-rail.

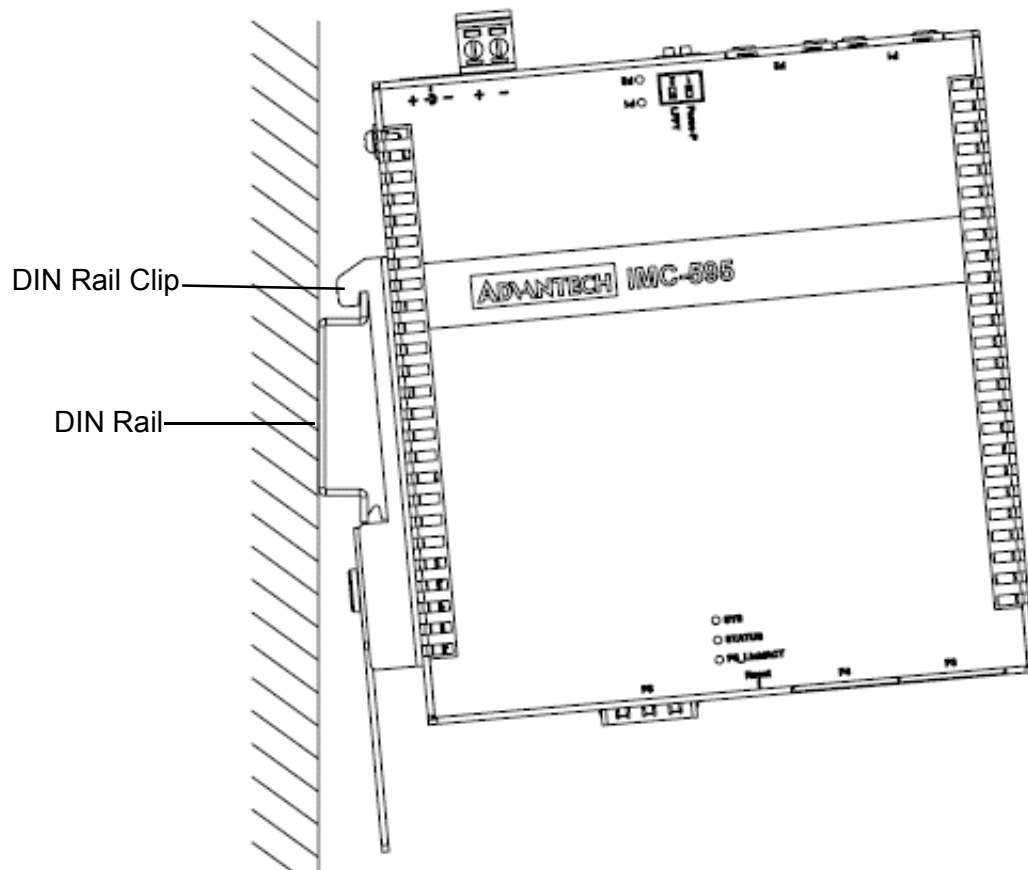


Figure 2.6 Installing the Converter on a DIN-rail

7. Grasp the bottom of the switch and slightly rotate it upwards. If there is resistance, the switch is correctly installed. Otherwise, re-install the rail kit.

2.2.2.2 Removing the DIN-Rail Mounting Kit

To remove the converter from the DIN-rail:

1. Ensure that power is removed from the switch, and disconnect all cables and connectors from the front panel of the switch.
2. Pull down and hold the release clip to disengage it.
3. Grasp the bottom of the converter and rotate it outward.

- Once the release clip is clear of the DIN-rail, remove the converter from the rail. See the following illustration for details.

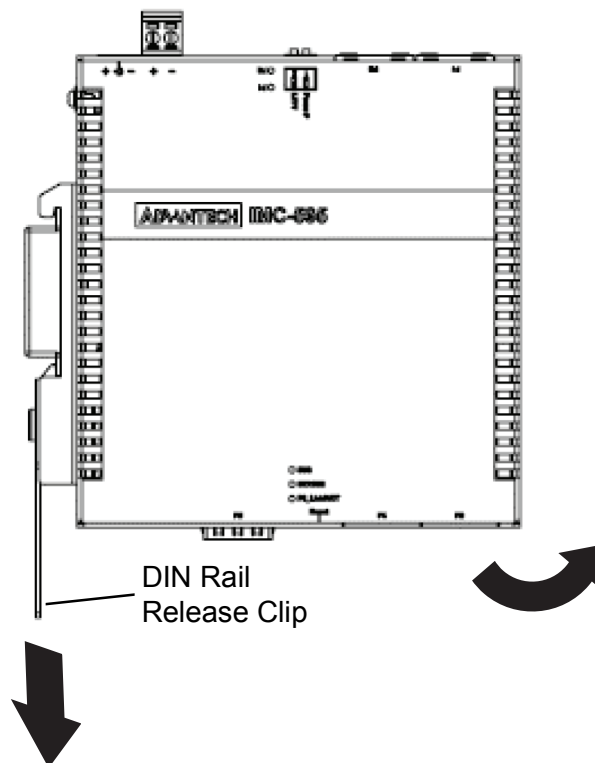


Figure 2.7 Removing the Converter on a DIN-rail

- Grasp the converter and lift it up and out to remove.

Note! *DIN-rail clips are designed for use on a DIN-35 rail.*



2.3 DIP Switch Configuration



Figure 2.8 DIP Switch

Pin	Function	Default	Description
1.	Force Power	Off	
		On	Switch to enable PoE force mode. The function provides power to PoE devices that are not IEEE 802.3 af/at/bt compliant or are high power PD devices (i.e. outdoor WiFi APs).
2.	LFPT	On	On/Off

2.4 Installing and Removing SFP Modules

Up to two fiber optic ports are available (dependent on model) for use in the switch. Refer to the technical specifications for details.

The Gigabit Ethernet ports on the switch are 100/1000Base SFP Fiber ports, which require using the 100M or 1G mini-GBIC fiber transceivers to work properly. Avantech provides completed transceiver models for different distance requirement.

The concept behind the LC port and cable is quite straight forward. Suppose that you are connecting devices I and II; contrary to electrical signals, optical signals do not require a circuit in order to transmit data. Consequently, one of the optical lines is used to transmit data from device I to device II, and the other optical line is used to transmit data from device II to device I, for full-duplex transmission.

Remember to connect the Tx (transmit) port of device I to the Rx (receive) port of device II, and the Rx (receive) port of device I to the Tx (transmit) port of device II. If you make your own cable, we suggest labeling the two sides of the same line with the same letter (A-to-A and B-to-B, as shown below, or A1-to-A2 and B1-to-B2).

2.4.1 Installing SFP Modules

To connect the fiber transceiver and fiber cable, use the following guidelines:

1. Remove the dust plug from the fiber optic slot chosen for the SFP transceiver.

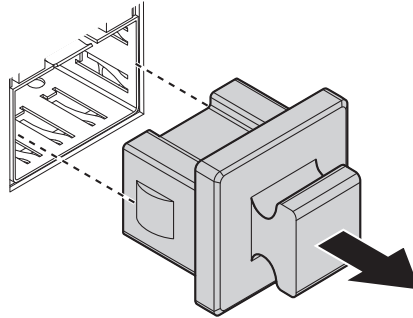


Figure 2.9 Removing the Dust Plug from an SFP Slot

Note! Do not remove the dust plug from the SFP slot if you are not installing the transceiver at this time. The dust plug protects hardware from dust contamination.



2. Position the SFP transceiver with the handle on top, see the following figure.
3. Locate the triangular marking in the slot and align it with the bottom of the transceiver.
4. Insert the SFP transceiver into the slot until it clicks into place.
5. Make sure the module is seated correctly before sliding the module into the slot. A click sounds when it is locked in place.

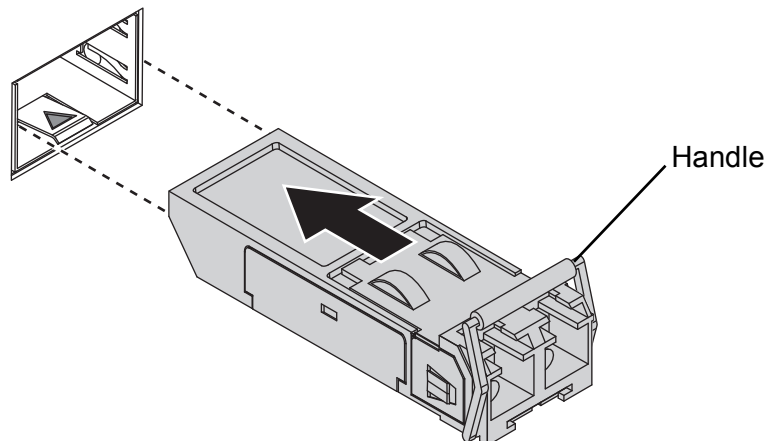


Figure 2.10 Installing an SFP Transceiver

Note! If you are attaching fiber optic cables to the transceiver, continue with the following step. Otherwise, repeat the previous steps to install the remaining SFP transceivers in the device.



6. Remove the protective plug from the SFP transceiver.

Note! Do not remove the dust plug from the transceiver if you are not installing the fiber optic cable at this time. The dust plug protects hardware from dust contamination.



7. Insert the fiber cable into the transceiver. The connector snaps into place and locks.

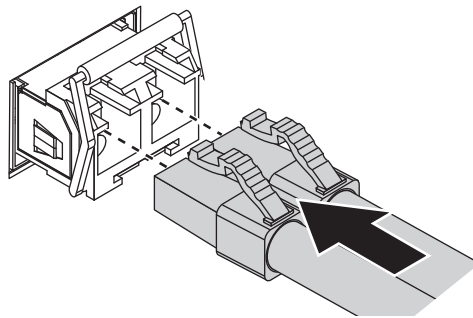


Figure 2.11 Attaching a Fiber Optic Cable to a Transceiver

8. Repeat the previous procedures to install any additional SFP transceivers in the converter.
The fiber port is now setup.

2.4.2 Removing SFP Modules

To disconnect an fiber connector, use the following guidelines:

1. Press down and hold the locking clips on the upper side of the optic cable.
2. Pull the optic cable out to release it from the transceiver.

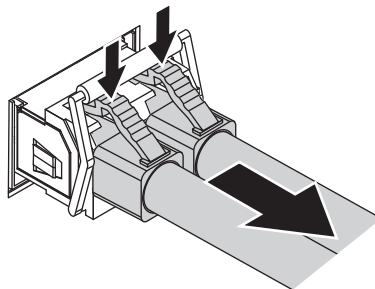


Figure 2.12 Removing a Fiber Optic Cable to a Transceiver

3. Hold the handle on the transceiver and pull the transceiver out of the slot.

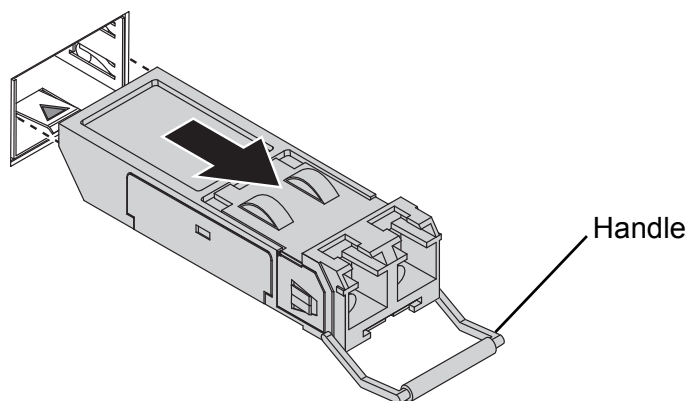


Figure 2.13 Removing an SFP Transceiver

Replace the dust plug on the slot if you are not installing a transceiver.
The dust plug protects hardware from dust contamination.

2.5 Connecting the Converter to Ethernet Ports

2.5.1 RJ45 Ethernet Cable Wiring

For RJ45 connectors, data-quality, twisted pair cabling (rated CAT5 or better) is recommended. The connector bodies on the RJ45 Ethernet ports are metallic and connected to the GND terminal. For best performance, use shielded cabling. Shielded cabling may be used to provide further protection.

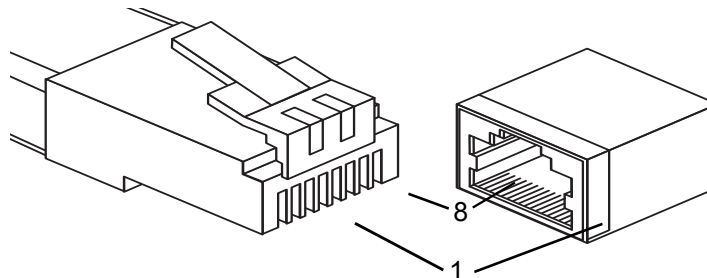


Figure 2.14 Ethernet Plug & Connector Pin Position

Straight-thru Cable Wiring		Cross-over Cable Wiring	
Pin 1	Pin 1	Pin 1	Pin 3
Pin 2	Pin 2	Pin 2	Pin 6
Pin 3	Pin 3	Pin 3	Pin 1
Pin 6	Pin 6	Pin 6	Pin 2

Maximum cable length: 100 meters (328 ft.) for 10/100/1000BaseT.

2.6 Power Supply Installation

2.6.1 Overview

Warning! Power down and disconnect the power cord before servicing or wiring the switch.



Caution! Do not disconnect modules or cabling unless the power is first switched off.



The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch device.

Caution! PoE fully loaded devices can reach surface temperatures in excess of 90°C (194°F). Disconnect the device and allow a period of time to pass before touching the surface to prevent injury.



The media converter can be powered by either a DC power supply or an AC adapter: using the same DC source used to power other devices. A DC voltage rating of 55-57Vdc, 4A must be applied between the V1+ terminal and the V1- terminal (PW1), see the following illustrations. A Class 2 power supply is required to maintain a

UL62368 panel listing. The chassis ground screw terminal should be tied to the panel or chassis ground.

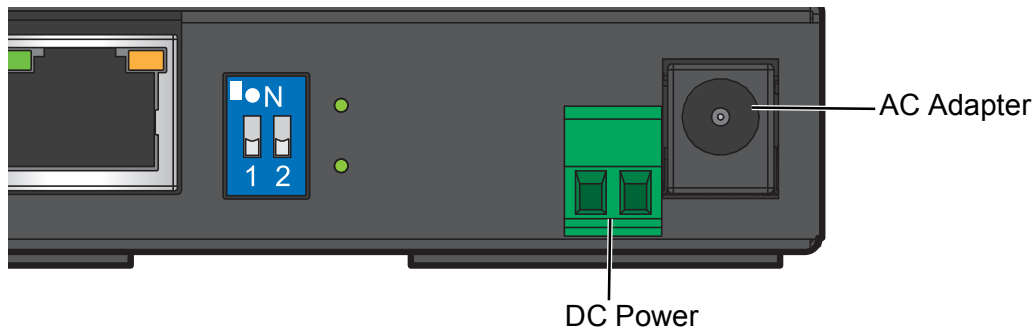


Figure 2.15 System Power Connectors

2.6.2 Considerations

Take into consideration the following guidelines before wiring the device:

- The Terminal Block (CN1) is suitable for 12-16 AWG(3.31 - 1.32mm²). Torque value 7 lb-in.
- The cross sectional area of the earthing conductors shall be at least 3.31 mm².
- Calculate the maximum possible current for each power and common wire. Make sure the power draw is within limits of local electrical code regulations.
- For best practices, route wiring for power and devices on separate paths.
- Do not bundle together wiring with similar electrical characteristics.
- Make sure to separate input and output wiring.
- Label all wiring and cabling to the various devices for more effective management and servicing.

Note! *Routing communications and power wiring through the same conduit may cause signal interference. To avoid interference and signal degradation, route power and communications wires through separate conduits.*



2.6.3 Grounding the Device

Warning! *Do not disconnect modules or cabling unless the power is first switched off.*



The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the media converter device.

Warning! *Before connecting the device properly ground the device. Lack of a proper grounding setup may result in a safety risk and could be hazardous.*



Warning! *Do not service equipment or cables during periods of lightning activity.*



Warning! Do not service any components unless qualified and authorized to do so.



Warning! Do not block air ventilation holes.



Electromagnetic Interference (EMI) affects the transmission performance of a device. By properly grounding the device to earth ground through a drain wire, you can setup the best possible noise immunity and emissions.

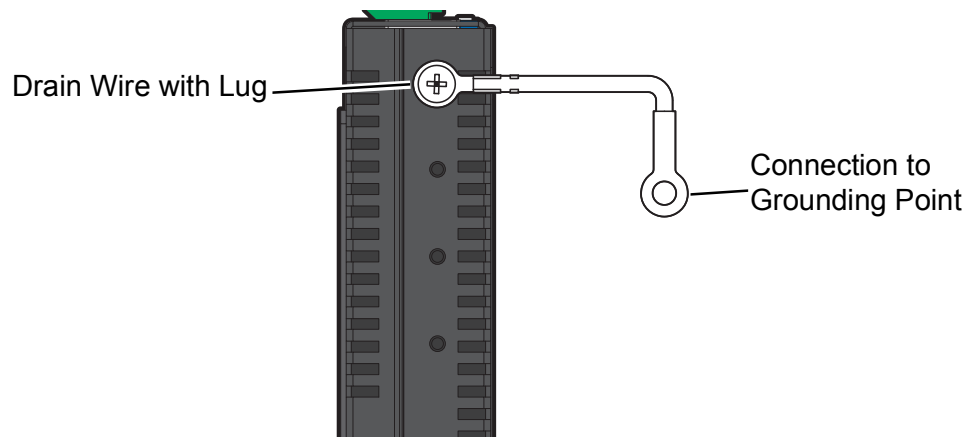


Figure 2.16 Grounding Connection

By connecting the ground terminal by drain wire to earth ground the switch and chassis can be ground.

Note! Before applying power to the grounded switch, it is advisable to use a volt meter to ensure there is no voltage difference between the power supply's negative output terminal and the grounding point on the switch.



2.6.4 Wiring the Power Inputs

Caution! Do not disconnect modules or cabling unless the power is first switched off.



The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch device.

Warning! Power down and disconnect the power cord before servicing or wiring the switch.



To wire the power inputs:

Make sure the power is not connected to the switch or power converter before proceeding.

1. Insert a small flat-bladed screwdriver in the +/- wire-clamp screws to loosen the screws.

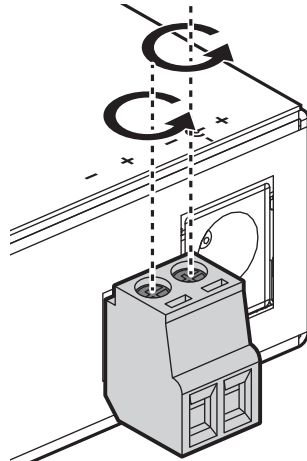


Figure 2.17 Preparing the Terminal Block

2. Insert the negative/positive DC wires into the +/- terminals.
3. Tighten the wire-clamp screws to secure the DC wires in place.

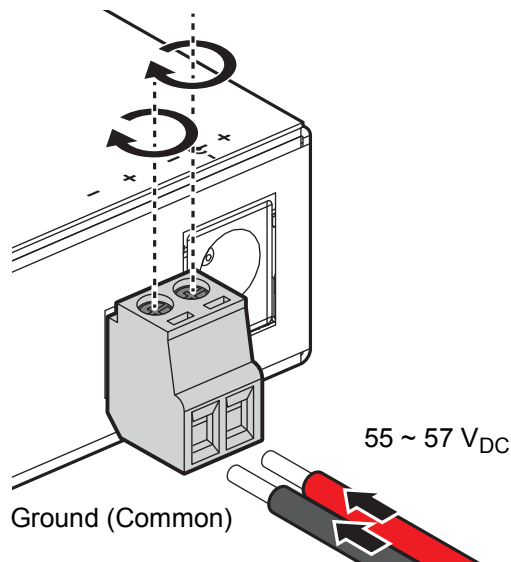


Figure 2.18 Installing DC Wires in a Terminal Block

4. Power on the switch or power converter.

2.6.5 AC Adapter In

Caution! Disconnect the power cord before installation or cable wiring.



Connect the AC power line with its AC connector.

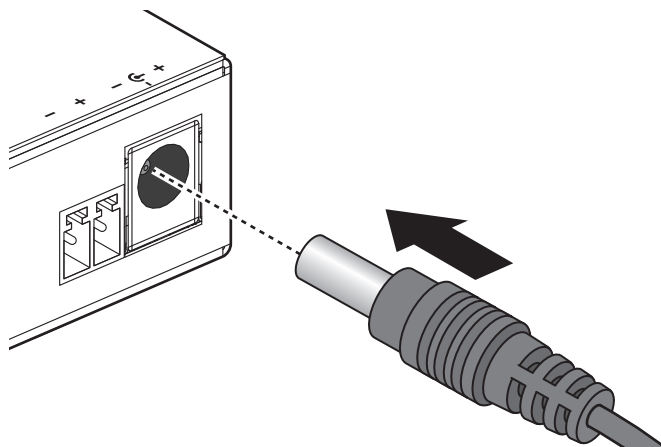


Figure 2.19 Connecting AC Adapter

2.7 Reset Button

The reset function allows for the reset of a device to its original factory default configuration.

To reset configuration to factory default:

Press and hold Reset button for 5 seconds.

For a system reboot:

Press and hold Reset button for 2 seconds.

2.8 Autocross Feature for Twisted Pair Connections

All fixed twisted pair ports on the IMC-595MPI include the AutoCross feature that automatically selects between a crossover workstation and a straight-through connection, depending on the connected device.

2.9 Managing a Device

The management of devices takes place through the iView2 application. To get started and add a device see “Add Device” on page 43 for further information.

Chapter 3

iView²

3.1 Introduction

3.1.1 Purpose

iView² is the Advantech B&B SmartWorx Element Management System (EMS) for SNMP-based configuration and management of chassis and module products. The purpose of this document is to identify the installation instructions for the iView² web-based application.

3.2 Installing iView²

The complete iView² installation process is accomplished through a six step process:

- Load Necessary Install Files
- Install MySQL Server 5.1
- Install Java Runtime Environment
- Install Apache\Tomcat 6
- Installation Completion
- Installation Verification

3.2.1 Installation Requirements

The following requirements must be met before iView² can be installed:

- The Java J2SE runtime environment version 1.7 or greater must be installed
- The Apache\Tomcat 6 or greater http server and servlet container must be installed
- The MySQL 5.1 or greater relational database management system (rdms) must be installed

Note! *All the requirement applications can be found through the iView² installation release.*



iView² is a Java-based solution and requires a different web container environment than Microsoft Internet Information Server (IIS). We will be recommending the Apache/Tomcat HTTP and Servlet Container. Apache/Tomcat 6 was used during development and testing.

iView² uses a database for all configuration information and report data. We will be recommending the MySQL database system. MySQL 5.1 was used during development and testing.

iView² is an Internet-based application so the main user GUI is through a web browser. The following browsers are supported:

- MS Internet Explorer v10 or greater
- Mozilla Firefox v15.0 or greater
- Google Chrome v35 or greater

3.2.2 Load Necessary Install Files

iView² is a Java-based application. iView² can be downloaded from the Advantech B+B SmartWorx website ("<http://advantech-bb.com>") and comes packaged as a

compressed archive file entitled. The following installation instructions will guide a user through the iView² installation process.

1. Unzip the downloaded file to a local directory.
2. Start the installation process by double-clicking the downloaded file. The Welcome screen displays.
3. Click **Next** to continue.

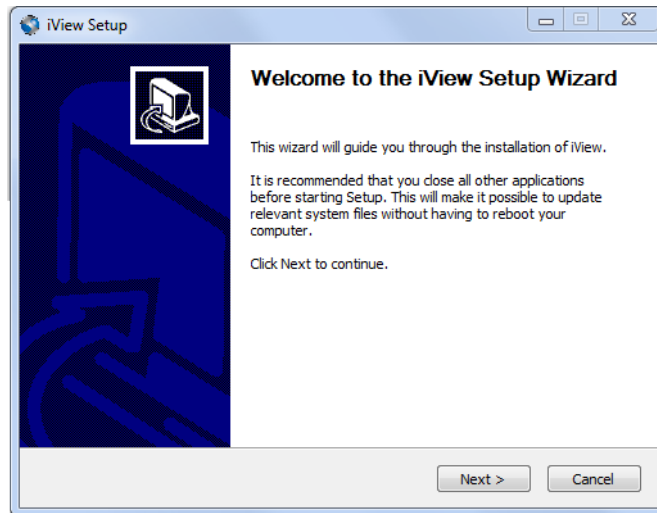


Figure 3.1 Initiating Installation

The License Agreement screen displays.

4. Please take a moment to read through the license agreement and click **I Agree** to continue.

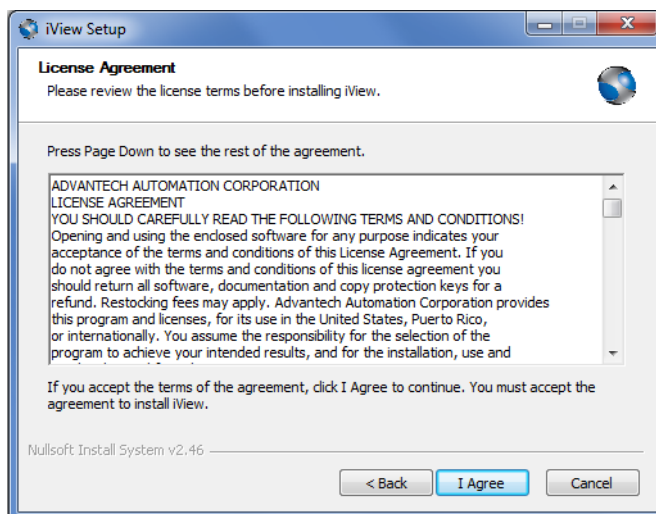


Figure 3.2 Viewing License Agreement

The Choose Components screen displays.

5. Unselect the components to install. By default the following are selected for installation:
 - MySQL Server
 - Java Runtime Environment
 - Apache Tomcat
 - IMC Networks Trap Service
 - iView Program Files

6. Click **Next** to continue.

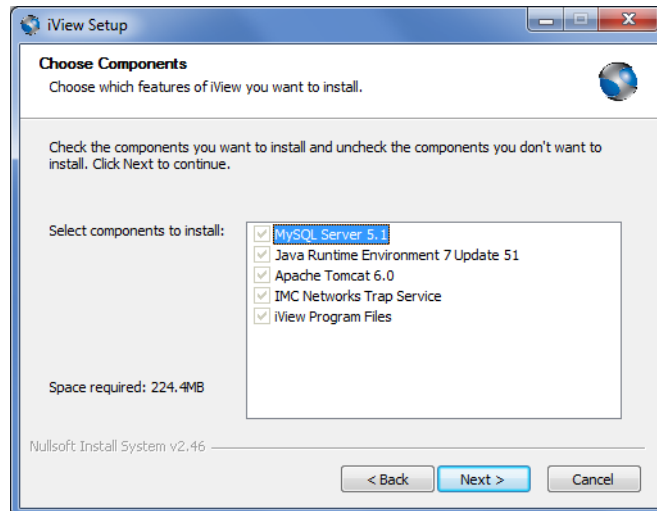


Figure 3.3 Selecting Components to Install

The Choose Install Location page displays.

7. Click **Browse** to select a specific destination folder, and click Install to continue. The Installing page displays while the installation copies all necessary files to the selected location.
8. Continue with the next step of the process by installing MySQL 5.1.

3.2.3 Install MySQL Server 5.1

iView² uses a relational database management system for all data storage. MySQL 5.1 provides the database functionality required by iView² and is the standard during internal development and testing. The following installation instructions guides you through the required MySQL 5.1 installation.

1. The Setup Wizard screen displays. Click **Next** to continue the installation and begin installing the MySQL Server.



Figure 3.4 MySQL Server Setup Wizard

The Setup Type screen displays. This option allows you to select the type of setup to install:

- Typical: Select the common program features to install (General use).
- Complete: Select to install all features (Requires most disk space).
- Custom: Select specific program features and their location to install.

2. Select the type of setup to install and click **Next** to continue.

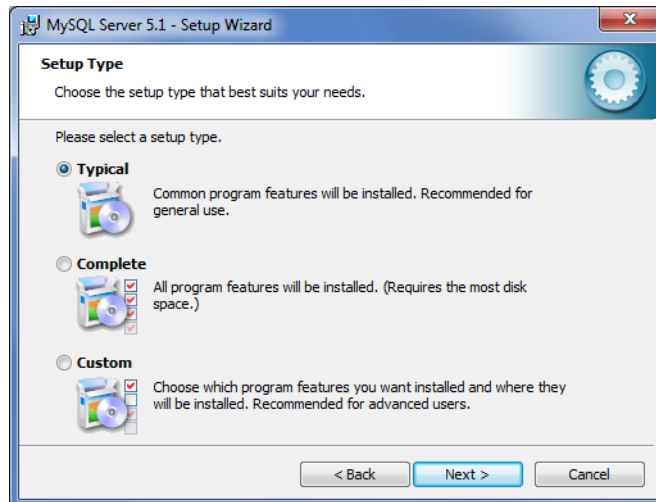


Figure 3.5 Selecting Setup Type

The Ready to Install the Program screen displays.

3. The current installation settings are displayed in the Current Settings pane. Click **Install** to continue.

To review or change any of the settings:

- Click Back to return to the previous screen
- Click Cancel to exit the wizard

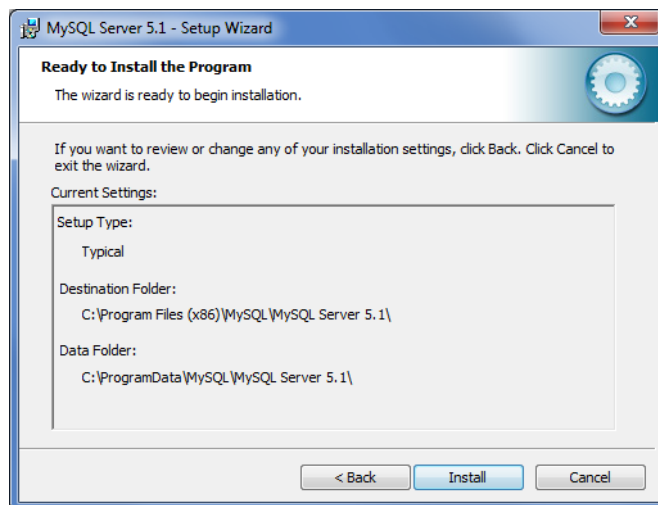


Figure 3.6 Reviewing Current Settings

The Installing MySQL Server 5.1 screen displays during the file installation. When the MySQL installation is complete a product dialog screen displays.

4. Click **Next** until the description dialog is completed to continue the installation process.



Figure 3.7 MySQL Enterprise Product Dialog

The Wizard Completed screen displays.

5. Click **Configure the MySQL Server now** dialog if not already selected.
6. Click **Finish** to complete the MySQL Server installation.

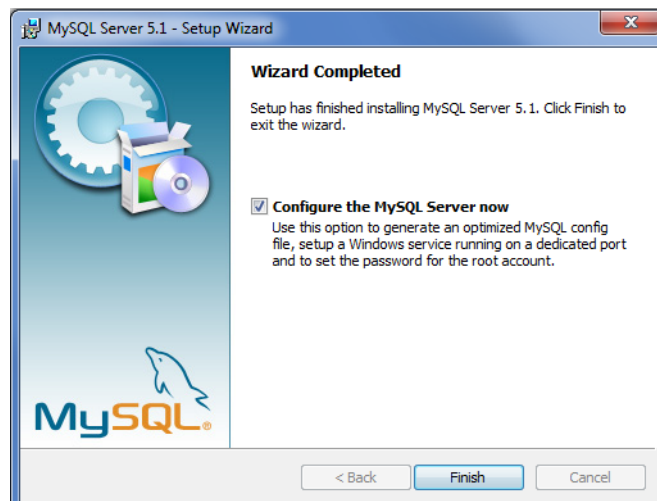


Figure 3.8 MySQL Enterprise Product Dialog

The MySQL Server Instance Configuration Wizard screen displays. The wizard allows for the configuration of the MySQL Server instance.

7. Click **Next** to continue.

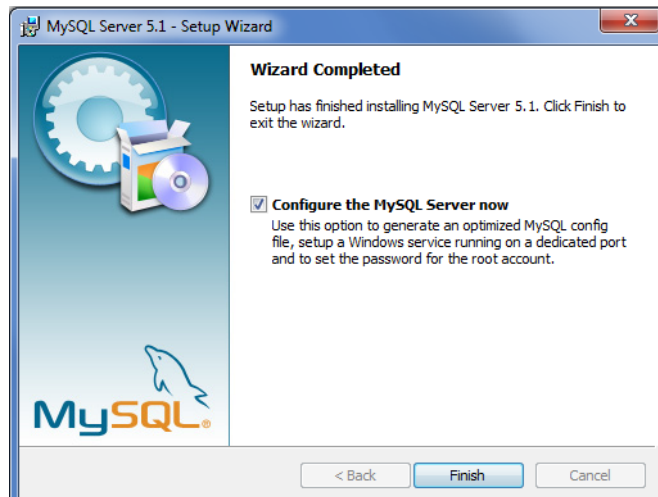


Figure 3.9 MySQL Server Instance Configuration Wizard

The configuration type screen displays.

8. Click an option to select a configuration type:
 - Detailed Configuration: Select to create the optimal server setup
 - Standard Configuration: Select to create a general purpose configuration on a machine that does not have a MySQL server already installed.
9. Click **Next** to continue.

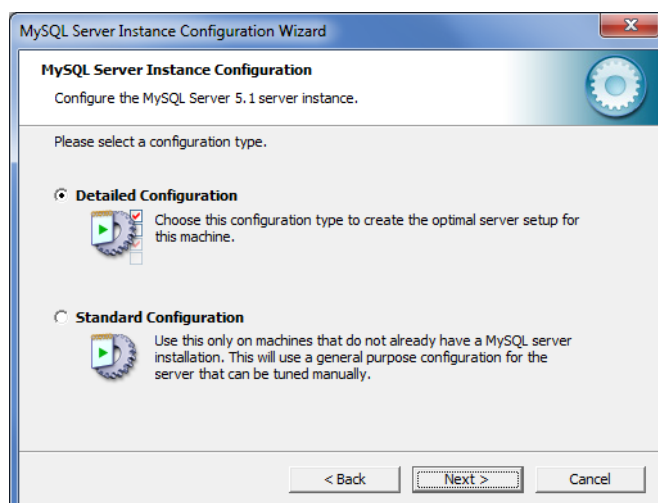


Figure 3.10 MySQL Server Instance Configuration Type

The server type screen displays.

10. Click an option to select a server type. The following are available options. For instruction purposes the **Server Machine** option is selected.
 - Developer Machine: Select if this is a development machine with applications running on it.
 - Server Machine: Select if this server includes other server applications running on it.
 - Dedicated MySQL Server Machine: Select if this server is dedicated to run the MySQL Database server.

11. Click **Next** to continue.

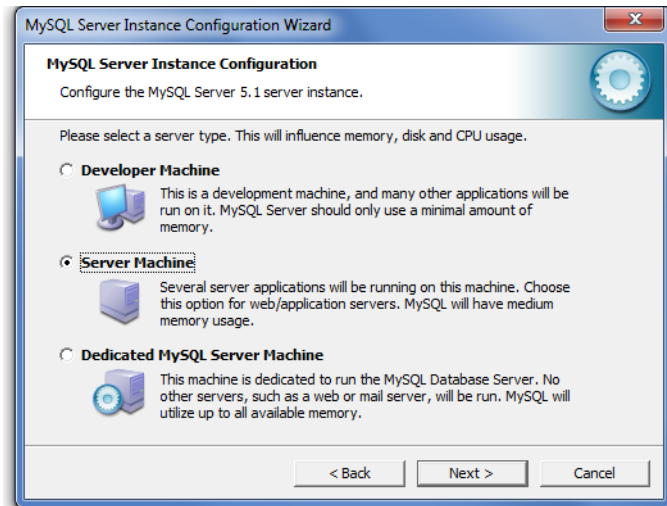


Figure 3.11 Select a Server Type

The select the database usage screen displays.

12. Select **Non-Transactional Database Only**, and click **Next** to continue.

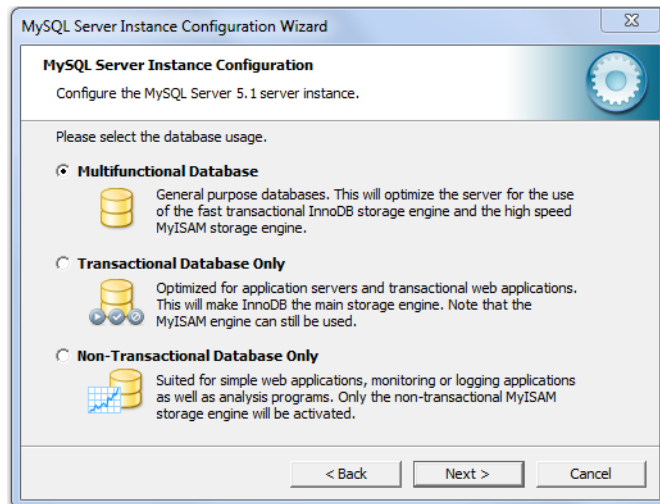


Figure 3.12 Select Database Usage

The number of concurrent connections screen displays.

1. Select **Decision Support (DSS)/OLAP** if it isn't already selected, and click **Next** to continue.

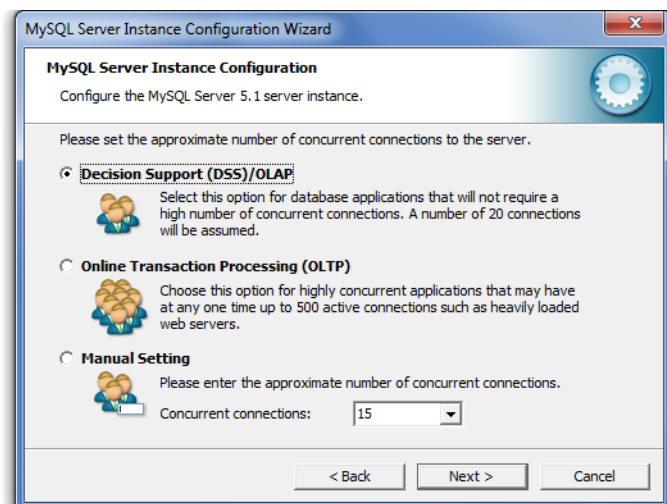


Figure 3.13 Select Database Usage

The set networking options screen displays.

2. Select **Enable TCP/IP Networking** and **Enable Strict Mode** if not already selected.
3. Click **Next** to continue the installation.

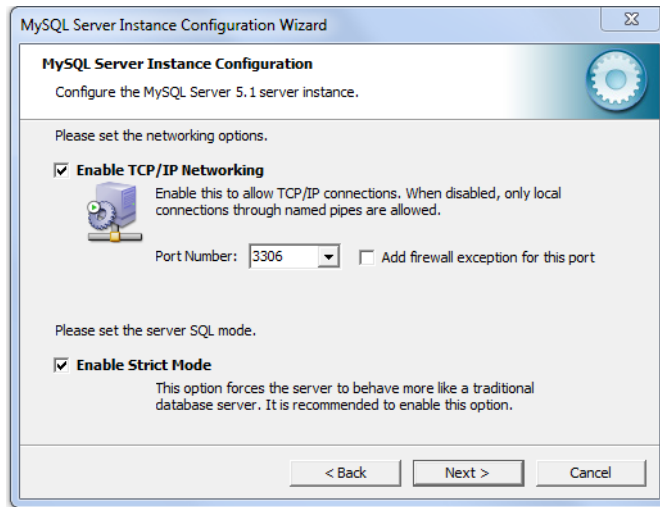


Figure 3.14 Select Database Usage

The default character selection screen displays.

4. Select **Standard Character Set** if not selected, click **Next** to continue.

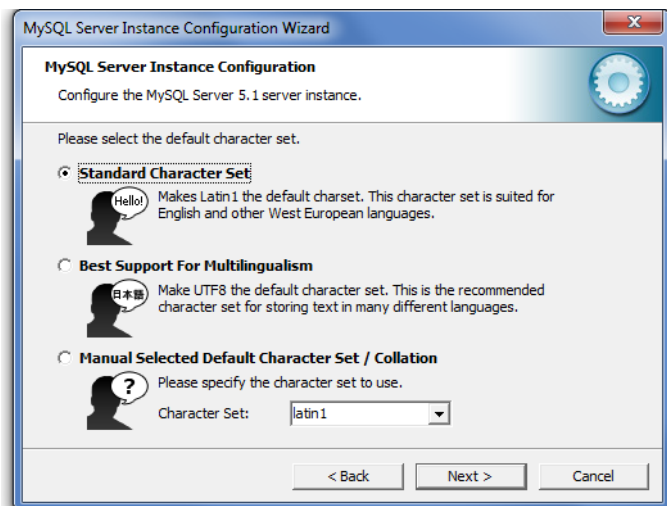


Figure 3.15 Select Database Usage

The set the Windows Service option screen displays.

5. Select **Install As Windows Service** if it isn't already selected. The Service Name is set to MySQL.

6. Click **Next** to continue.

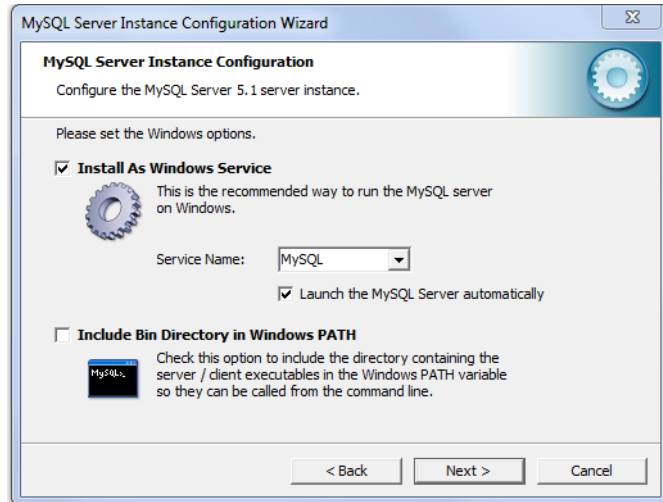


Figure 3.16 Set the Windows Service

The security options screen displays.

7. Select **Modify Security Settings** if it isn't already selected, and enter the root and confirmation passwords. The following is an example and not intended as instructions for the selection of a password.
 - Enter admin as the New root password.
 - Enter admin as the Confirm password.
8. Click **Next** to continue.



Figure 3.17 Set Security Options

The Ready to Execute screen displays.

9. Click **Execute** to continue.

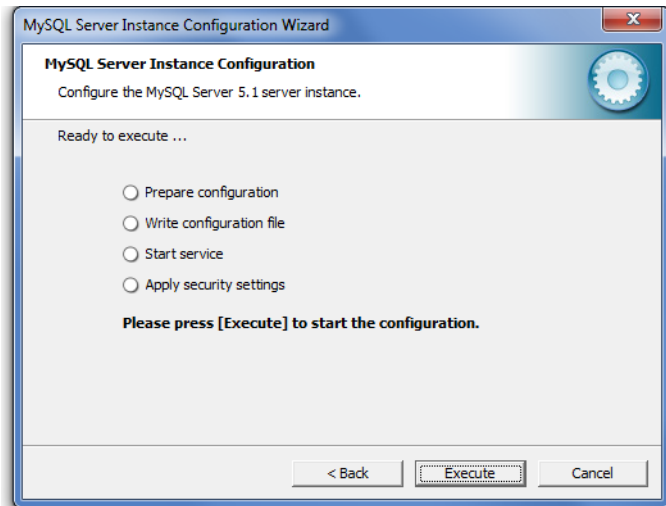


Figure 3.18 Execute Configuration Settings

After the execution process is completed, a configuration report screen displays the results of the instance configuration.

10. Click **Finish** to complete the process.

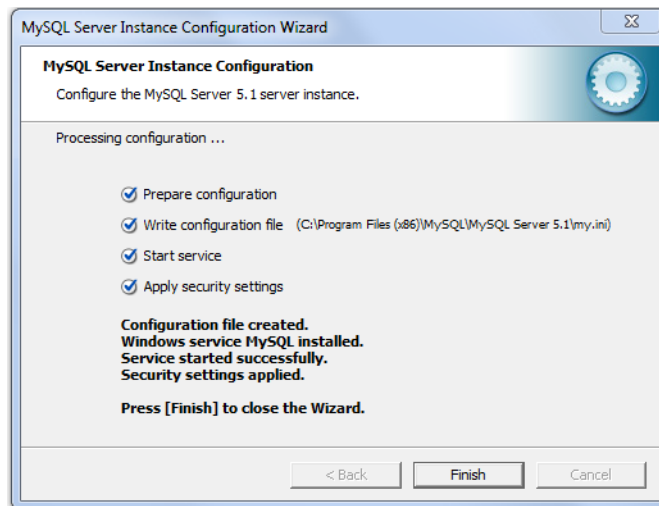


Figure 3.19 Processing Configuration Settings

Once the instance configurations are set, the next step is to begin installing the Java Runtime environment.

3.2.4 Installing the Java Runtime Environment

iView² is a Java-based application and a valid working installation of Java needs to be available. If the iView² installation process did not find a valid working installation of Java, the installation process will attempt to install Java v1.7u51 by default otherwise the process continues to “Install Apache Tomcat 6” on page 35.

1. While the Java Runtime Environment 1.7u51 is installing the following screen displays.

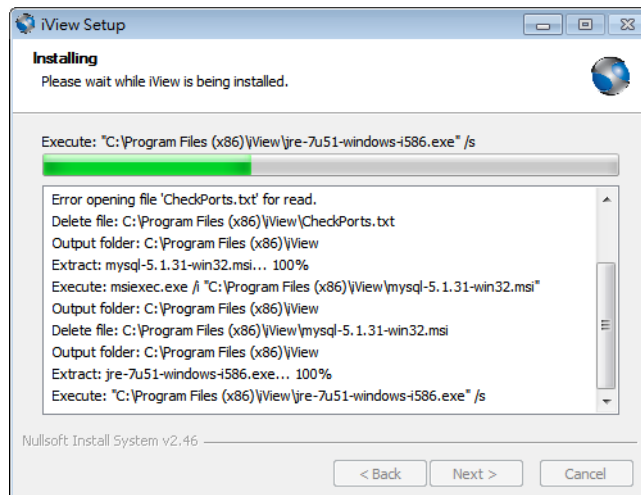


Figure 3.20 Database Usage Selection

2. After the Java Runtime Environment installation is complete the iView installation process performs a verification of the installation.
3. When the Java Runtime Environment installation is complete the Apache Tomcat 6 installation dialog box displays.
4. Continue with the next step of the process by installing Apache\Tomcat 6.

3.2.5 Install Apache Tomcat 6

iView² is a Java-servlet based application. Apache Tomcat 6 provides the servlet container required by iView². The following installation instructions will guide a user through the required Apache/Tomcat 6 installation.

The Welcome to the Apache Tomcat Setup Wizard displays.

1. Click **Next** to continue.



Figure 3.21 Apache Tomcat Setup

The License Agreement screen displays.

2. Review the terms of the agreement, click **I Agree** to continue. Click **Back** to return to the previous menu or **Cancel** to stop the installation.

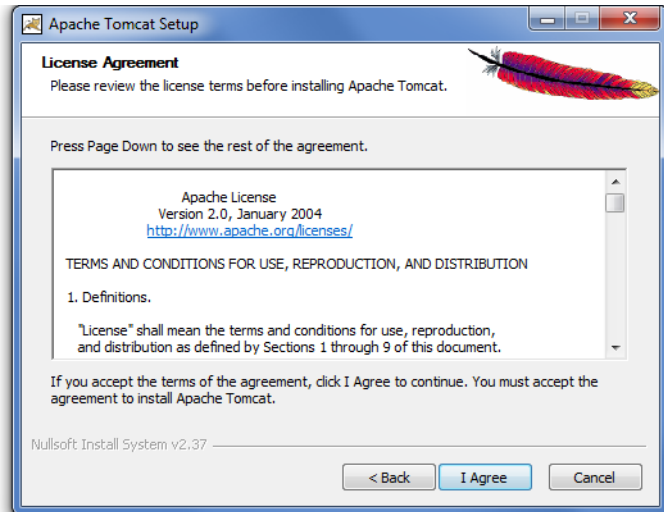


Figure 3.22 Apache License Agreement

The Choose Components screen displays.

3. A default set of components are selected. Uncheck any components you don't want installed.
4. Click **Next** to continue.

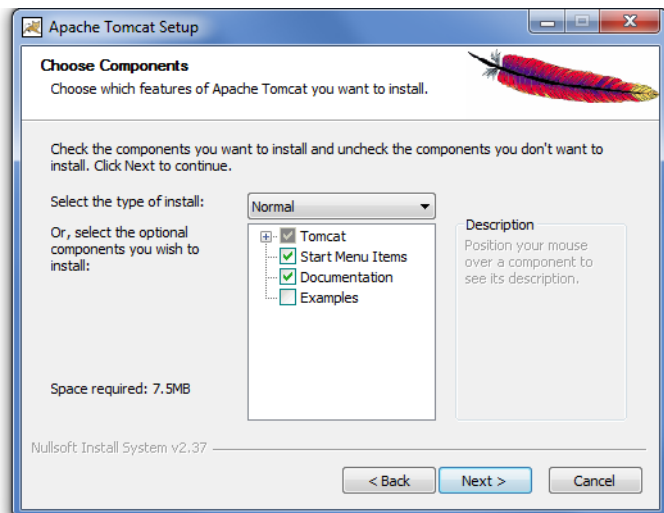


Figure 3.23 Apache License Agreement

The Choose Install Location screen displays.

5. Select the destination folder, and click Next to continue.

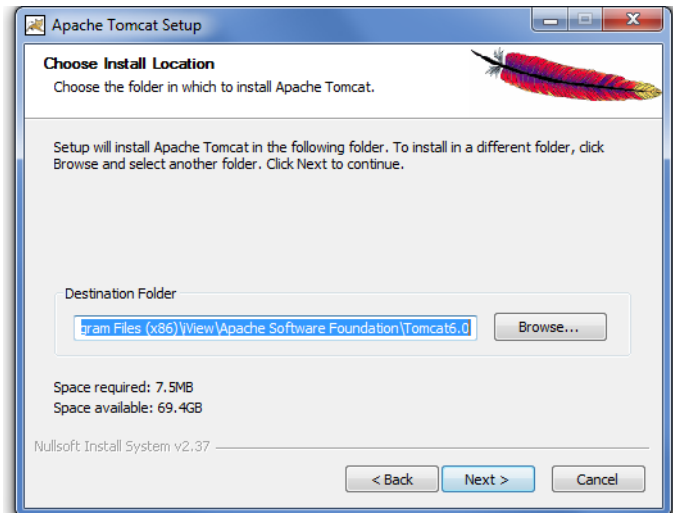


Figure 3.24 Installation Location

The Configuration screen displays.

6. The default Connector Port number is set to 8080. In the User Name and Password fields, enter the corresponding strings to use. For this example the following was used:
User Name: admin
Password: admin

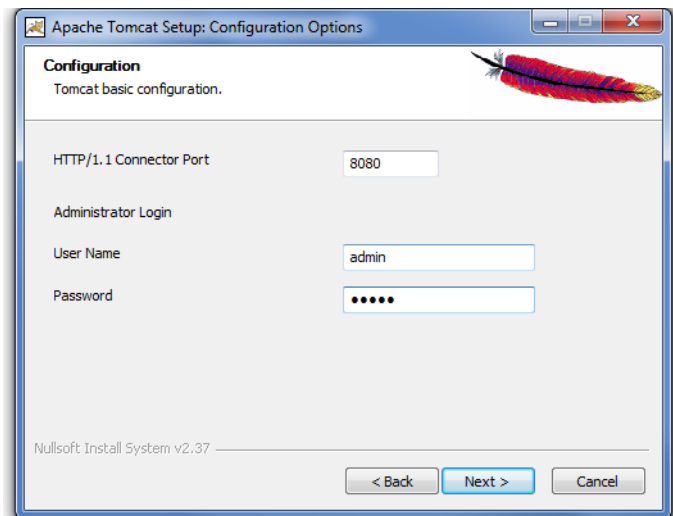


Figure 3.25 Apache License Agreement

The Java Virtual Machine path selection screen displays.

Select the location for the installation, and click **Install** to continue.

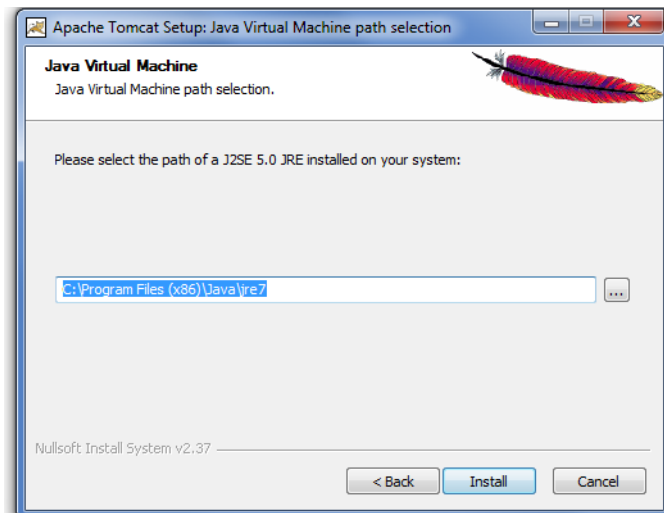


Figure 3.26 Apache License Agreement

The installation process continues. When it is completed, the Setup Wizard screen displays.

7. Click **Finish** to close the screen. If left checked, the Apache Tomcat service is started and the Readme notes display.

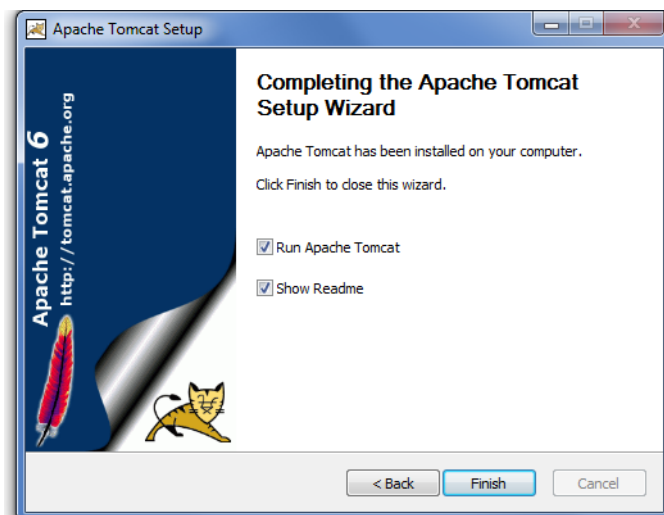


Figure 3.27 Apache License Agreement

The Apache Tomcat 6 application is installed and runs as a Microsoft Windows service.

8. Continue with the next step of the process by finalizing the installation.

3.2.6 Installation Completion

1. After Java, Apache/Tomcat, and MySQL have been installed, the iView² install process checks the DNS cache setting in the Java Runtime Environment. By default the Java Virtual Machine (JVM) DNS cache is set to cache a successful DNS lookup forever. This could be a problem for installations that manage devices via DNS and have to change the IP Addresses associated with DNS periodically. The default JVM DNS cache is set to forever to guard against DNS spoofing attacks. The iView² installer changes the default JVM DNS cache from cache forever, to cache never. The JRE java.security file will be modified as follows:

From: #networkaddress.cache.ttl=-1

To: networkaddress.cache.ttl=0

2. After the install process is done copying the necessary files you will have an opportunity to review the README file. When done with the README file the setup complete screen displays. Please make your selection and click **Finish**.

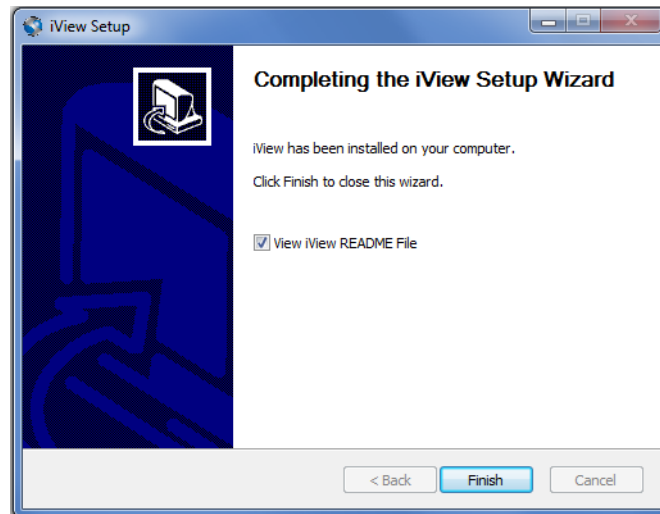


Figure 3.28 Completing iView Setup

The final step of the process is to verify the installation.

3.2.7 Installation Verification

1. Verify the Apache\Tomcat installation:
 - a. Open Internet Explorer or other supported browser
 - b. Enter "http://localhost:8080/" as the URL
 - c. You should see the "Apache Tomcat" home page

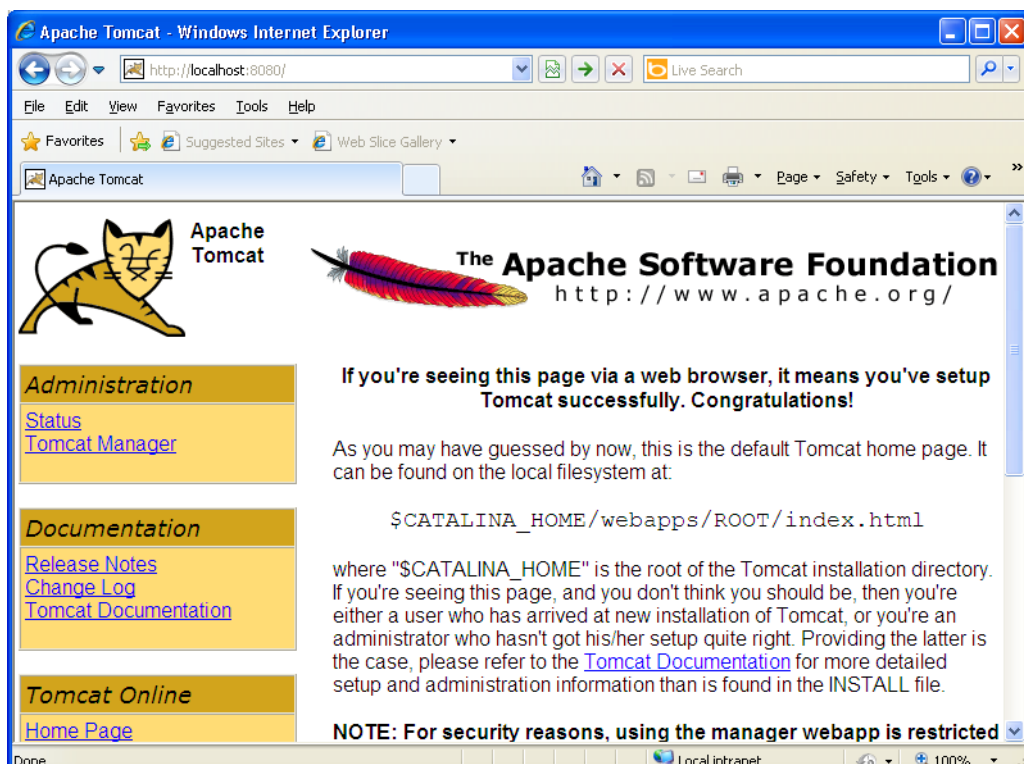



Figure 3.29 Installation Verification

4. Verify the iView installation by following the listed steps as follows:
5. Double-click the iView shortcut icon  or

- a. Open Internet Explorer, Chrome, or other supported browser
- b. Enter "http://localhost:8080/iView3" as the URL and press the "Enter" key. The iView login page displays.



Figure 3.30 iView Login Page

3. In the User Name and Password fields enter the default strings to access the iView interface.
User name: admin
Password: password
4. Click Log In to enter the user interface.
The iView home page displays.

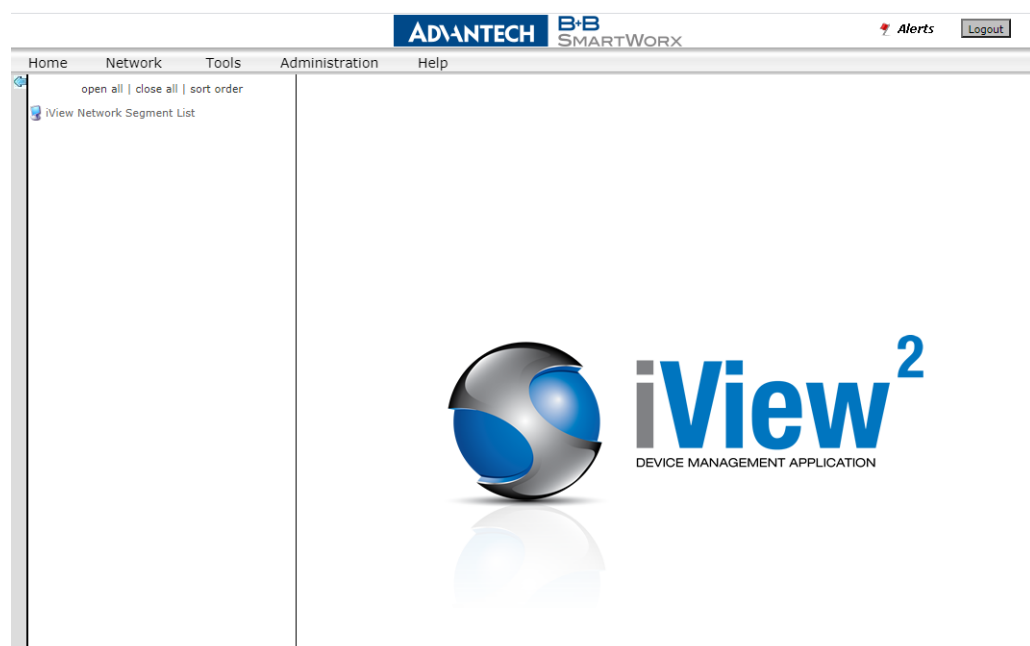


Figure 3.31 iView Interface

The iView² installation is verified.

3.3 Getting Started

3.3.1 User Login

Access to iView² is controlled by a User Authentication process. By default there is a single login account created during installation with a default username and password.

User name: admin

Password: password

To log in to the user interface:


1. Double-click the iView shortcut icon  or
 - a. Open Internet Explorer, Chrome, or other supported browser
 - b. Enter "http://localhost:8080/iView3" as the URL and press the "Enter" key.The iView login page displays.



Figure 3.32 iView Login Page

3. In the User Name and Password fields enter the default strings to access the iView interface.
User name: admin
Password: password
4. Click **Log In** to enter the user interface.

The iView home page displays.

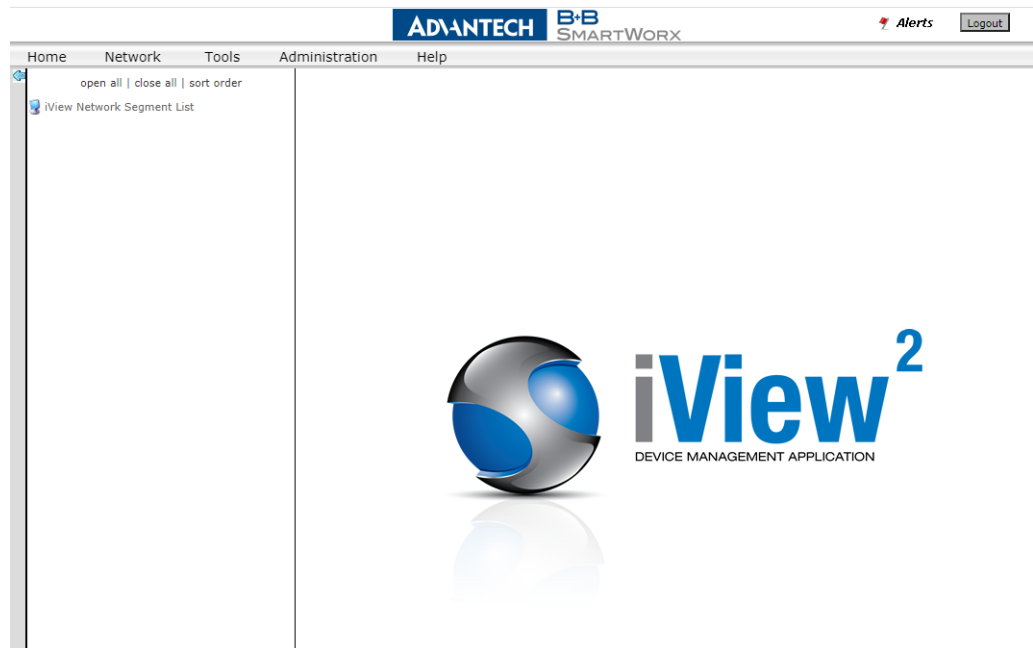


Figure 3.33 iView Interface

Once logged in, you can add a device and manage the configuration settings.

Before you can add a device, a segment must first be created. See the following for further information.

3.3.2 Add Segment

Adding segments are used to organize the IMC network devices. At least one segment is required before you can add a device.

To add a segment:

1. Navigate to Network > Add Segment from the menu bar.
2. Click Add Segment.

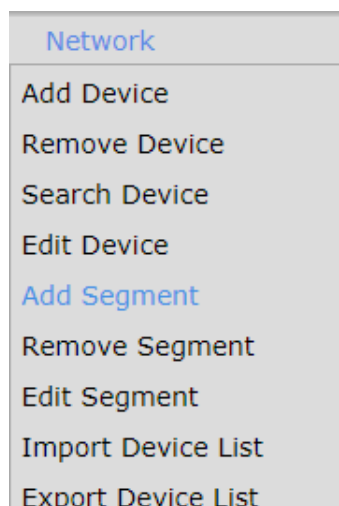
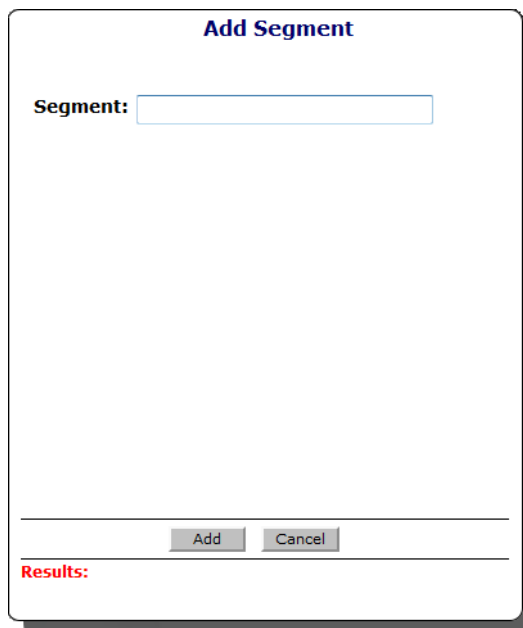


Figure 3.34 Add Segment Menu Command

The Add Segment menu displays.

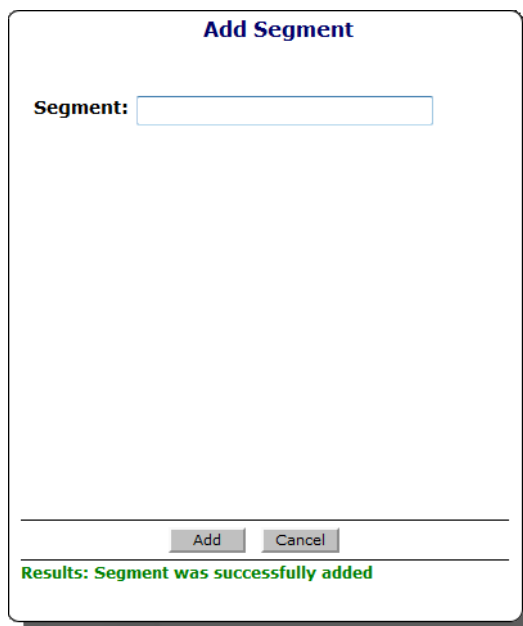
3. In the Segment field, enter the information to use to identify this segment. This can consist of up to 50 alphanumeric characters. Duplicate segments are not allowed.



The screenshot shows a dialog box titled "Add Segment". It contains a text input field labeled "Segment:". At the bottom of the dialog, there are two buttons: "Add" and "Cancel". Below the buttons, the text "Results:" is displayed in red.

Figure 3.35 Add Segment Display

4. Click Add to accept the entry in the database and update the Network Segment List display. Click **Cancel** to return to the previous menu without accepting the entry.



The screenshot shows the same "Add Segment" dialog box as in Figure 3.35. However, the "Results:" text at the bottom is now green and reads "Results: Segment was successfully added".

Figure 3.36 Successful Segment Addition Display

With the segment created, a device can be added. See the following for further information.

3.3.3 Add Device

The Add Device menu selection located in the Network menu commands controls the ability to add new devices. Devices are associated with the Segment to organize your network device selections.

1. If a Segment has not been created, the Add Segment window displays. See "Add Segment" on page 63 for further details.

- From the main menu, select Network > Add Device.
The Add Device window displays.



Figure 3.37 Add Device Menu

- In the **Device IP Address** field, enter the IP Address of the device. Alternatively, in the Device Domain Name field, enter the domain name assigned to the device.

Note: Duplicate IP Addresses are not valid.

Device Domain Naming:

The Device Domain Name category uses the following formatting:

- Valid characters in the subdomain are a-z A-Z 0-9 - (- = dash)
- Subdomains are limited to 63 character
- Subdomains must be separated by a period
- The Device Domain Name cannot exceed 255 characters

- In the **Device Mfg Type** field, click the drop-down menu to select **Advantech Injector Devices**.

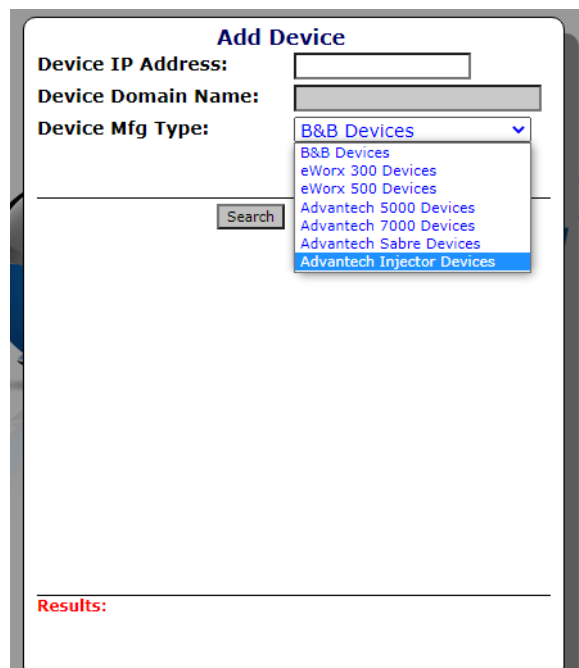


Figure 3.38 Add Device screen

- Click **Search** to initiate the function. Any results are listed in Found Devices window as seen in the following figure.

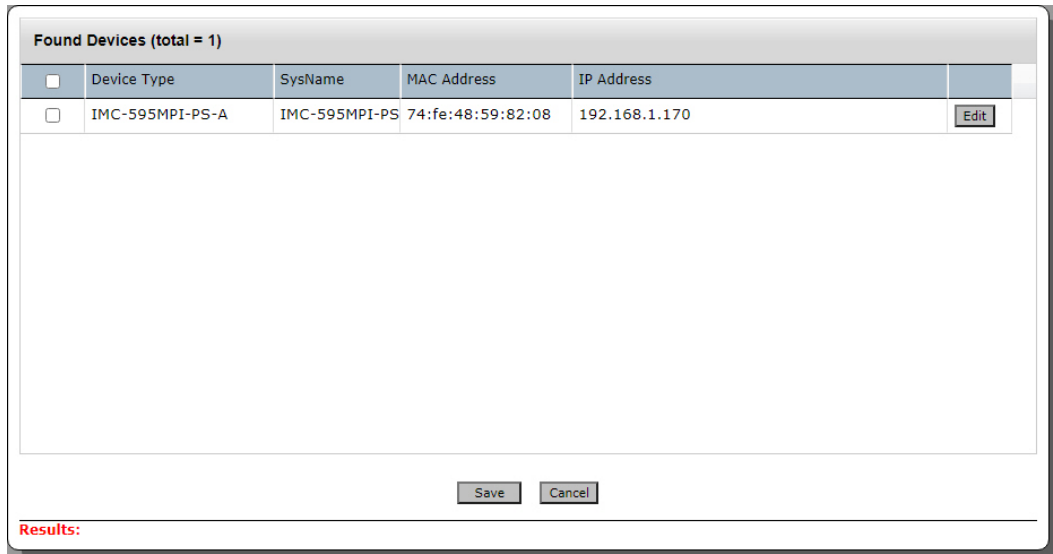


Figure 3.39 Selecting a Device Mfg Type

Once a device is found it can be saved into an existing segment.

The devices can also be re-configured, see “Configuring a Found Device” on page 46 for further information.

3.3.4 Saving a Device

If the device is found, the results are displayed in the Found Devices window. The option to save or cancel the search function is provided.

In this section, a device is saved to a segment after an Add Device (See “Add Device” on page 43 for further information) function is successfully executed.

To save a device:

- Initiate an Add Device function. See “Add Device” on page 43 for further information.
- From the Found Devices window select a listing from the results.

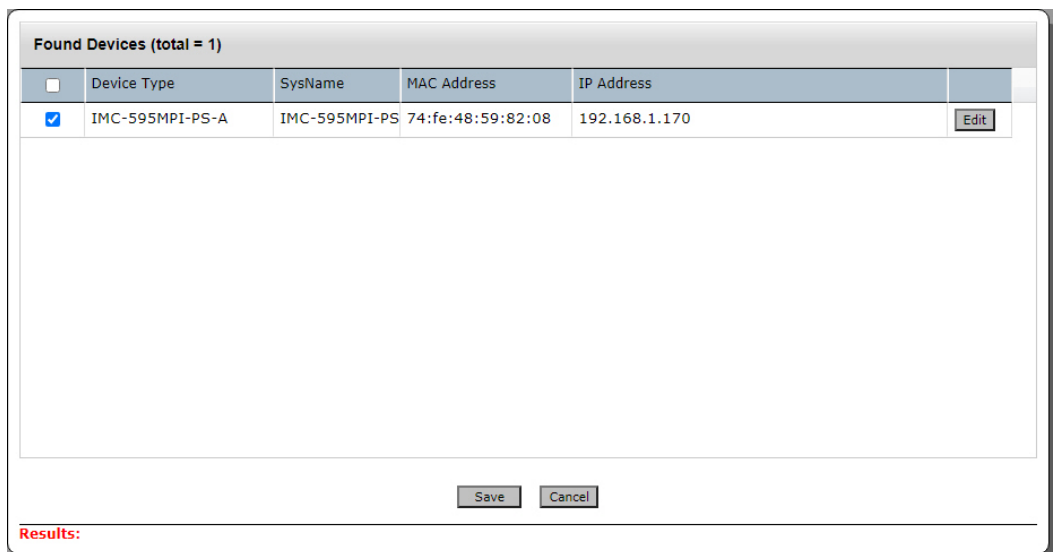


Figure 3.40 Selecting a Found Device

If not configured, the selected device is saved to the first listed segment under iView Network Segment List.

- Click **Save** to save the selected device to the designated segment. The added device is now moved under the designated segment.

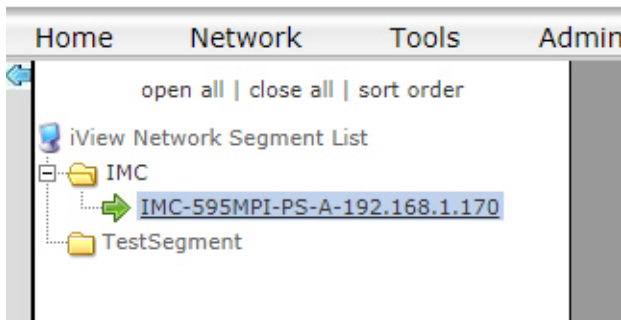


Figure 3.41 Saved Device in Segment

3.3.4.1 Configuring a Found Device

Configuring found devices allows you to change the segment location of the device as well as the IP address settings.

To configure a device:

- Add a device, see “Add Device” on page 43 for further information.
- From the Found Devices window, click **Edit** in the IP Address field to configure the IP address. The Edit IP Address window displays.

Found Devices (total = 1)				
<input type="checkbox"/>	Device Type	SysName	MAC Address	IP Address
<input checked="" type="checkbox"/>	IMC-595MPI-PS-A	IMC-595MPI-PS	74:fe:48:59:82:08	192.168.1.170 <input type="button" value="Edit"/>

Figure 3.42 Selecting a Found Device

The Device Configuration Settings window displays.

- Click the Segment drop-down menu to select the segment for the device.

Device Configuration Settings

Segment:

SysName:

IP Address:

Get Community:

Set Community:

Modbus/TCP Host Idle Time: (seconds)

Figure 3.43 Configuring a Found Device

- In the New pane, enter the IP address, subnet mask and default gateway to assign the device.

Alternatively, click DHCP enabled to use the server DHCP function for configuring the network settings.

Figure 3.44 Configuring a Found Device

5. Click **Ok** to save the new settings and return to the previous menu.
6. From the Device Configuration Settings window, click **Apply** to save the settings and return to the Found Devices window.

The device can now be saved and assigned a segment. See “Saving a Device” on page 45 for further information.

3.3.5 Searching for a Device

The iView² application provides a device search function which allow you to search for IMC network devices by using an IP address, domain name, community strings, and device type to briefly monitor a device.

To perform a device search:

1. From the main menu, select **Network > Search Device**.
The Search Device window displays.

Figure 3.45 Searching for a Device

2. In the **Device IP Address** field, enter the IP address of the device, or enter the Device Domain Name.
3. Enter the relevant information in the **Get** and **Set Community** fields.
4. Click the **Device Mfg Type** drop-down menu to select the device type.

5. Click to select the simple network management protocol used by the device (SNMPv1 or SNMPv2c).
6. Click Search to initiate the function.
A successful search displays the available information in the Results pane.

3.3.6 Remove Device

The Remove Device menu selection located in the Network menu commands controls the ability to remove devices. Devices are associated with the categories are used to organize your IMC network device selections. Removing device is a 3-step process:

- Select the Segment containing the device
- Select the device(s) you want to remove
- Remove the device information from the iView² database.

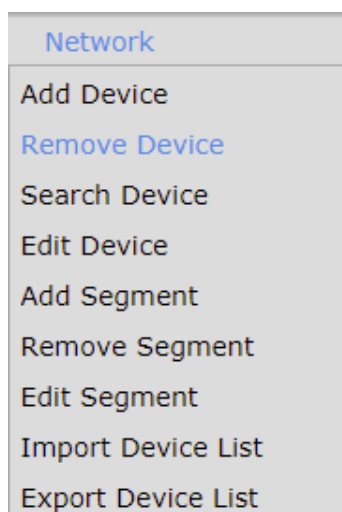


Figure 3.46 Remove Device Menu Command

1. Select the Segment containing the device. The Remove Device screen contains a drop-down list containing all the Segments in your Network Segment List.

2. Select a segment to display all the devices associated with that Segment under the Description section as shown in Fig. 3.47.

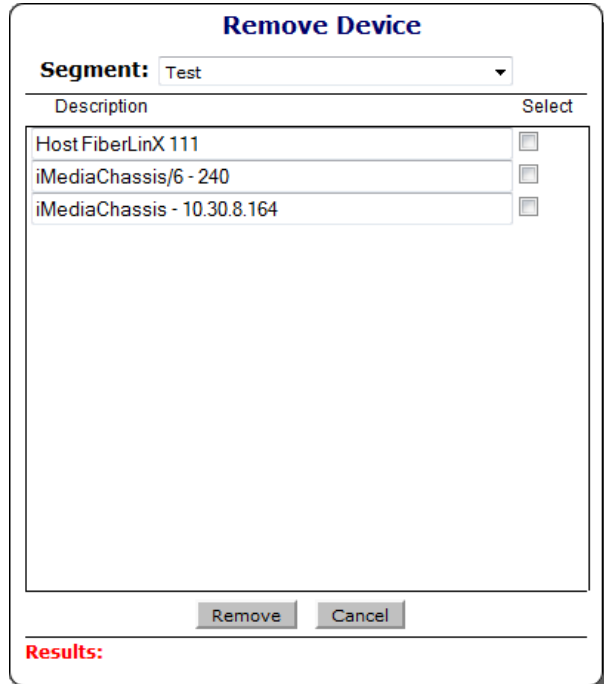


Figure 3.47 Remove Device Menu Command

3. Select the device(s) you want to remove.
4. Click Remove to remove the device from the database. This will display a message box listing your selections and ask you if you are sure you want to remove the device(s), as shown in Fig. 3.48.
5. Click **OK** to execute the device removal process, or **Cancel** to return to the previous menu.

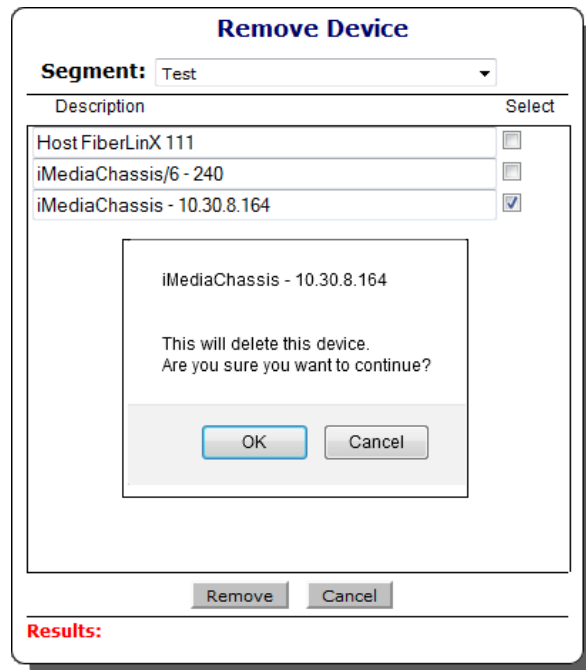


Figure 3.48 Remove Device Confirmation

3.3.7 Search Device

The Search Device menu selection located in the Network menu commands and provides the user with the ability to search for IMC network devices using IP Addresses and Community strings to temporarily monitor a device.

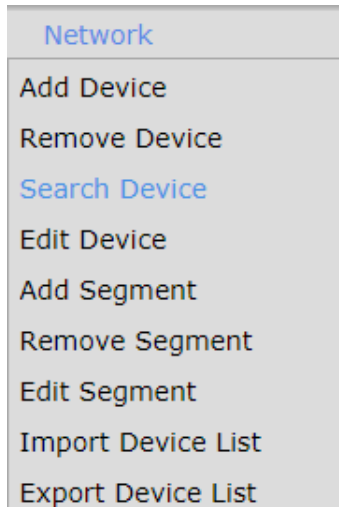


Figure 3.49 Search Device Menu Command

1. Enter the Device IP Address OR Device Domain Name, Get Community, and Set Community in the Search Device screen Display.
2. Click Search command button to start the device search.
3. A successful search displays the device results.

A screenshot of the "Search Device" screen. It features several input fields: "Device IP Address:" (empty), "Device Domain Name:" (empty), "Get Community:" (containing "public"), and "Set Community:" (containing "public"). Below these is a "Device Mfg Type:" dropdown menu set to "B&B Devices". There are two radio buttons for "SNMPv1" (unselected) and "SNMPv2c" (selected). At the bottom, there are "Search" and "Cancel" buttons. A "Results:" label is visible at the very bottom of the form area.

Figure 3.50 Search Device Screen Display

3.3.8 Edit Device

The Edit Device menu selection is located in the Network menu commands. This provides the user the ability to modify the Description for a device or update the PROM Version.

Note! The Edit Device menu is only applicable to B&B Devices.

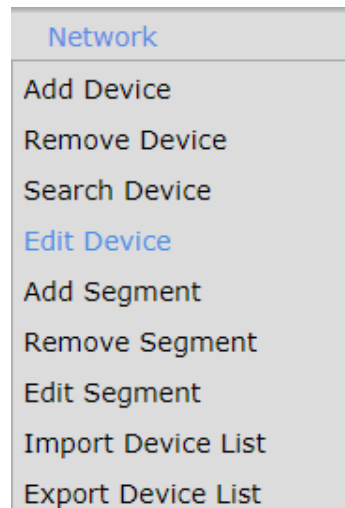


Figure 3.51 Edit Device Menu Command

The screenshot shows the "Edit Device" screen with the following fields and buttons:

- Segment: Test
- Device: iMediaChassis - 10.30.8.164
- MIB II sysName: iMediaChassis [Edit]
- Description: Host iMcV-FiberLinX-II [Edit]
- MAC Address: 00:00:29:0E:EF:01
- IP Address: 10.30.8.164 [Edit]
- Get Community: public [Edit]
- Set Community: public [Edit]
- PROM Version: 953-00D5

Buttons: MIB Definitions, Traps, Users, Save, Cancel

Results:

Figure 3.52 Edit Device Screen Display

3.3.8.1 Edit Description

To change the device description:

1. In the Edit Device screen, click **Edit** on the Description field.

The Edit Device screen displays.

The screenshot shows the 'Edit Device' window. At the top, there are two dropdown menus: 'Segment:' with 'Test' selected and 'Device:' with 'iMediaChassis - 10.30.8.164' selected. Below these is a large dialog box titled 'Edit Description'. Inside this dialog, there is a 'Description:' label followed by a text input field containing 'Host iMcV-FiberLinX-II'. At the bottom of the dialog are 'Save' and 'Cancel' buttons. Below the dialog, in the main window, are three buttons: 'MIB Definitions', 'Traps', and 'Users'. At the very bottom of the window are 'Save' and 'Cancel' buttons, and a 'Results:' label.

Figure 3.53 Edit Device Description

2. Enter the new description caption to use.
3. Click **Save** to accept the setting or **Cancel** to return to the previous screen. A successful operation displays Operation Completed Successfully in the Results section and the new description displays in the iView Network Segment List.

3.3.8.2 Edit PROM Version

To update the device PROM Version:

Follow the Task Manager instructions to select the device, set the scheduling options, and submit for processing.

The screenshot shows the 'Edit Device' window with various fields. The 'Segment:' dropdown is 'Test' and the 'Device:' dropdown is 'iMediaChassis - 10.30.8.164'. Below these are several fields with 'Edit' buttons: 'MIB II sysName:' (iMediaChassis), 'Description:' (Host iMcV-FiberLinX-II), 'MAC Address:' (00:00:29:0E:EF:01), 'IP Address:' (10.30.8.164), 'Get Community:' (public), and 'Set Community:' (public). The 'PROM Version:' field contains '953-00D5' and has a green arrow pointing to it from the right. At the bottom of the window are 'MIB Definitions', 'Traps', and 'Users' buttons, and 'Save' and 'Cancel' buttons. A 'Results:' label is at the very bottom.

Figure 3.54 Update PROM File

3.3.8.3 Edit IP Address

To change the device IP Address:

1. In the Edit Device screen, click **Edit** on the IP Address field.

The Edit IP Address screen displays. The Current and New IP settings fields display.

The screenshot shows the 'Edit Device' window with a 'Segment' dropdown set to 'Test'. A central 'Edit IP Address' dialog is open, containing two side-by-side panels. The 'Current' panel on the left has three greyed-out input fields: 'IP Address' (10.30.8.164), 'Subnet Mask' (255.255.255.0), and 'Default Gateway' (10.30.8.1). The 'New' panel on the right has three white input fields with the same values. Below the panels are 'Save' and 'Cancel' buttons. At the bottom of the main window, there are tabs for 'MIB Definitions', 'Traps', and 'Users', and another set of 'Save' and 'Cancel' buttons.

Figure 3.55 Edit IP Address Screen

2. In the New panel, enter the new IP Address, Subnet Mask, and Default Gateway settings.
3. Click **Save** to set the new configuration or **Cancel** to return to the previous menu. The entered information will be checked for appropriate format as an IPv4 address. An error message will be displayed if any of the fields is blank or is not formatted correctly.

Pressing Save command button to write the new addressing information to the device will cause the IP Address Verification screen to display. The Change IP Address Verification screen displays because writing the new addressing information to the device will cause the device to reboot when the write operation is complete.

The screenshot shows the 'Edit Device' window with 'Segment' set to 'Test' and 'Device' set to 'iMediaChassis - 10.30.8.164'. A 'Change IP Address Verification' dialog is overlaid on the screen. The dialog has a title bar and contains a red warning message: 'WARNING: Changing the IP Address will cause the device to reboot.' Below the warning is the question 'Do you want to continue?' in red text, followed by 'Yes' and 'No' buttons. The background 'Edit Device' window shows a list of configuration items on the left: 'MIB II sy', 'Description', 'MAC Addr', 'IP Address', 'Get Comm', 'Set Comm', and 'PROM Ver'. At the bottom of the main window are tabs for 'MIB Definitions', 'Traps', and 'Users', and 'Save' and 'Cancel' buttons.

Figure 3.56 Change IP Address Verification Screen

- Click Yes to continue.

The screenshot shows the 'Edit Device' interface. At the top, there are dropdown menus for 'Segment' (set to 'Test') and 'Device' (set to 'iMediaChassis - 10.30.8.164'). Below these, a list of device parameters is visible: MIB II sysName, Description, MAC Address, IP Address, Get Community, Set Community, and PROM Version. An 'Edit Description' dialog box is overlaid on the 'Description' field, containing a text input field with 'Host iMcV-FiberLinX-II' and 'Save' and 'Cancel' buttons. At the bottom of the main screen, there are buttons for 'MIB Definitions', 'Traps', and 'Users', along with 'Save' and 'Cancel' buttons. A 'Results:' section is at the very bottom.

Figure 3.57 Edit Device Description

3.3.8.4 Edit MIB Definitions

To change the device MIB Definitions:

Click MIB Definitions command button in the Edit Device Screen display. The MIB Definitions

- In the Edit Device screen, click **EMIB Definitions** screen allows you to: Add a New Community, Edit a Community, Delete a Community, Add Authentication to a Community, Edit the Authentication, or Delete the Authentication from a Community. The Current and New IP settings fields display.

This screenshot shows the 'Edit Device' screen with various fields and buttons. The 'MIB II sysName' field contains 'iMediaChassis' with an 'Edit' button. The 'Description' field contains 'Host iMcV-FiberLinX-II' with an 'Edit' button. Other fields include 'MAC Address' (00:00:29:0E:EF:01), 'IP Address' (10.30.8.164) with an 'Edit' button, 'Get Community' (public) with an 'Edit' button, 'Set Community' (public) with an 'Edit' button, and 'PROM Version' (953-00D5). At the bottom, there are buttons for 'MIB Definitions', 'Traps', and 'Users', along with 'Save' and 'Cancel' buttons. A 'Results:' section is at the very bottom. A mouse cursor is pointing at the 'MIB Definitions' button.

Figure 3.58 MIB Definitions Command Button

3.3.8.5 Add a New Community

- In the Edit Device screen, click **MIB Definitions** screen. The Edit MIB Definitions screen displays.

- Click Add to display the Edit Community screen. The Edit Community screen allows the user the ability to define a new community.

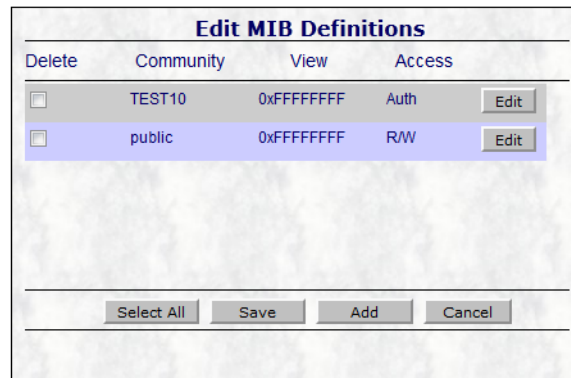


Figure 3.59 Edit MIB Definitions Screen

- In the Edit Community screen enter the Name of the new community.

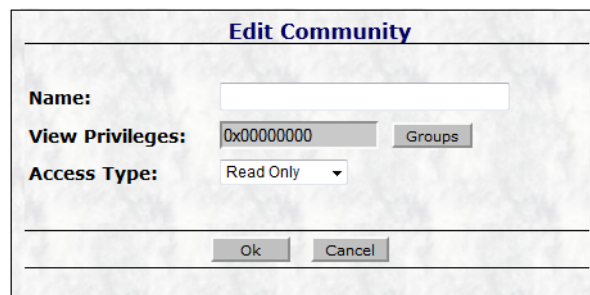


Figure 3.60 Edit Community Screen

- Click Groups to display the Edit View Privileges screen.
- From the Edit View Privileges screen, select the MIB groups to enable privilege. Alternatively, click Select All or Clear All to select/de-select the privileges.

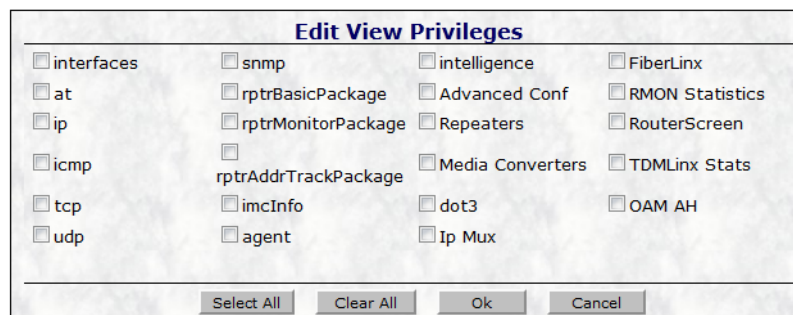


Figure 3.61 Edit View Privileges Screen

- Click **Ok** to exit the Edit View Privileges screen once you have made your MIB groups selections.
- The Edit Community screen displays. Click the Access Type drop-down menu.
- Click Ok to return to the Edit MIB Definitions screen.

- From the Edit MIB Definitions screen Save to accept the settings.

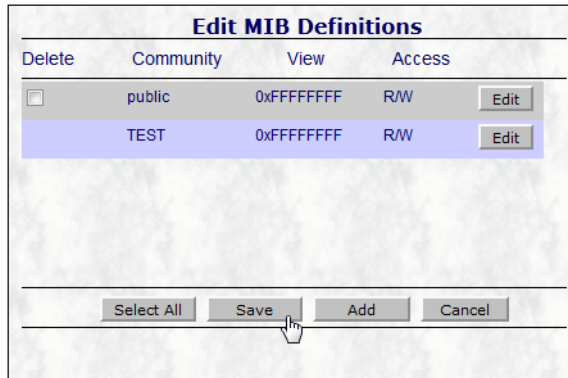


Figure 3.62 Press Save to store TEST community to device.

The Processing Request displays while the new community is written to the device.

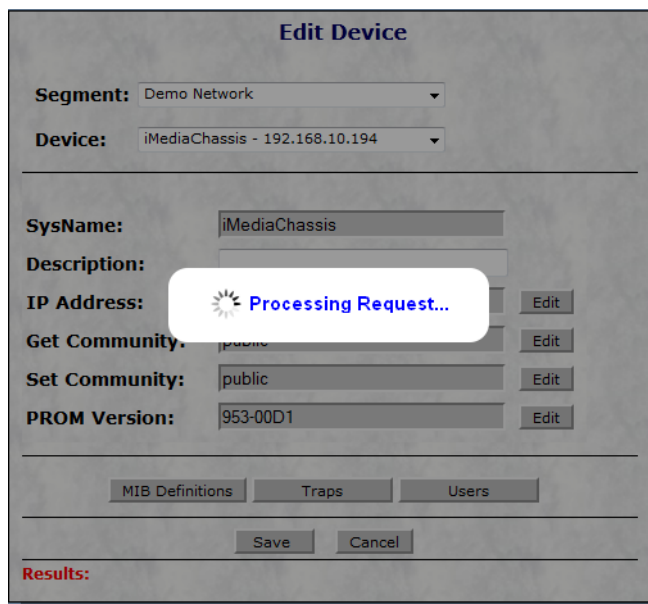


Figure 3.63 Example processing Add Community request.

When the write community to device request is finished processing the results appear in the Results section at the bottom of the screen.

Figure 3.64 Add Community Results Display

3.3.8.6 Edit a Community

1. In the Edit Device screen, click **MIB Definitions** screen. The Edit MIB Definitions screen displays.

Delete	Community	View	Access	
<input type="checkbox"/>	TEST	0xFFFFFFFF	R/W	Edit
<input type="checkbox"/>	public	0xFFFFFFFF	R/W	Edit

Figure 3.65 Edit Community

2. Click Add to display the Edit Community screen. The Edit Community screen allows the user the ability to define a new community. The Edit Community screen appears which will allow the user the ability to change the Groups associated with the community or the Access rights of the community.

Figure 3.66 Edit existing community

3. Click **Ok** in the Edit Community screen to return to the Edit MIB Definitions screen.

- In the Edit MIB Definitions screen Click **Save**. The Processing Request screen displays while the community changes are written to the device.
When the write community to device request is finished processing the results of the operation will appear in the Results section of the Edit Device screen.

3.3.8.7 Delete a Community

- In the Edit Device screen, click **MIB Definitions** screen.
The Edit MIB Definitions screen displays.

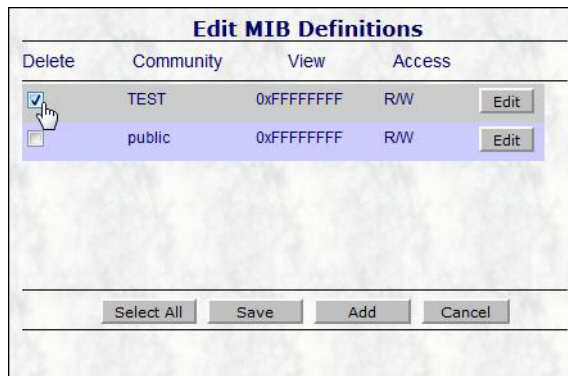


Figure 3.67 Selecting a community to delete

- Select the MIB Definition(s) to delete.
- Click Save to accept the settings.
The Processing Request display appears while the community changes are written to the device.
When the write community to device request is finished processing the results of the operation will appear in the Results section of the Edit Device screen.

3.3.8.8 Add Authentication to a Community

- In the Edit Device screen, click **MIB Definitions** screen.
The Edit MIB Definitions screen displays.
Authentication provides the user the ability to provide certain IP Address more or less access within a community.



Figure 3.68 Changing Access Type to Authentication

- Click MIB Definitions command button in the Edit Device Screen display to open the Edit MIB Definitions screen.
- Click Edit command button in the Edit MIB Definitions screen to the right of the community you want to change.

Change the Access Type to Authentication. This will change the Access Type of the community. Authentication is enabled.

Figure 3.69 Availability of Authentication command button

4. Click Authentication to display the Authentication List screen. The Authentication List screen allows the user the ability to Add IP Address and their associated access restrictions to the selected community.

Figure 3.70 Authentication List screen

5. Click **Add** in the Authentication List to display the Add Authentication screen.

Figure 3.71 Add Authentication screen

Enter an IP Address and select the appropriate Access Type from the selections.

- Read Only – The entered IP Address will only have read only SNMP access to the device
- Read/Write – The entered IP Address will have read and write SNMP access to the device
- No Access – The entered IP Address will have no SNMP access to the device

Note! *The authentication access type associated with a community will only allow those IP Addresses associated with the community the applicable SNMP access. Any IP Address not in the Authentication List will not have any SNMP access to devices through the authenticated community.*



6. Press Ok in the Add Authentication screen.

7. Press Ok in the Authentication List screen.
8. Press Ok in the Edit Community screen.
9. In the Edit MIB Definitions screen click Save.
The Processing Request display will appear while the community changes are written to the device.

When the write community to device request is finished processing the results of the operation will appear in the Results section of the Edit Device screen.

3.3.8.9 Delete the Authentication from a Community

1. In the Edit Device screen, click **MIB Definitions** screen to view the Edit MIB Definitions screen displays.
Authentication provides the user the ability to provide certain IP Address more or less access within a community.
2. Click **Edit** in the Edit MIB Definitions screen to the right of the community you want to change.
3. Click **Authentication** to display the Authentication List screen.
4. Select the authentication to delete.
5. Click **Ok** in the Authentication List screen.
6. Click **Ok** command button in the Edit Community screen.
7. In the Edit MIB Definitions screen click **Save** command button.
The Processing Request display will appear while the community changes are written to the device.

When the write community to device request is finished processing, the results appear in the Results section at the bottom of the screen.

3.3.8.10 Edit Traps

Most Trap operations in iView² are controlled through the Trap Manager functions. The Edit Device screen also allows a user the ability to add trap operations for ip addresses that are not associated with the iView² server.

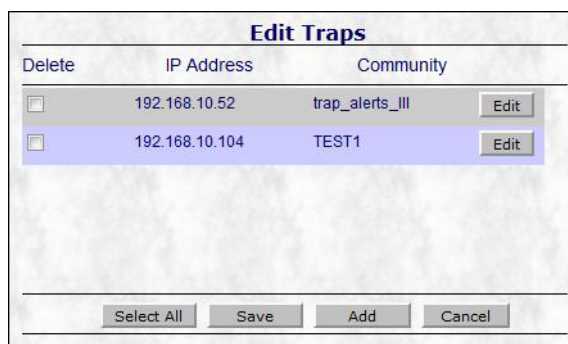


Figure 3.72 Edit Traps screen

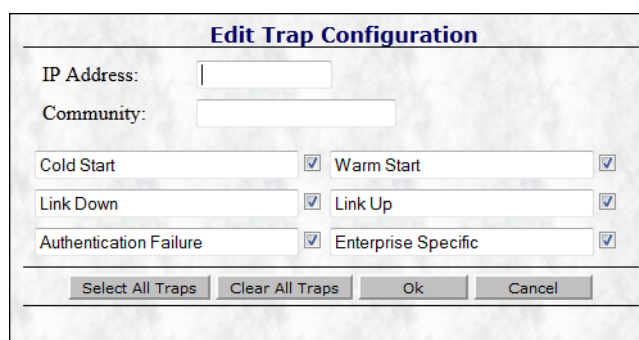
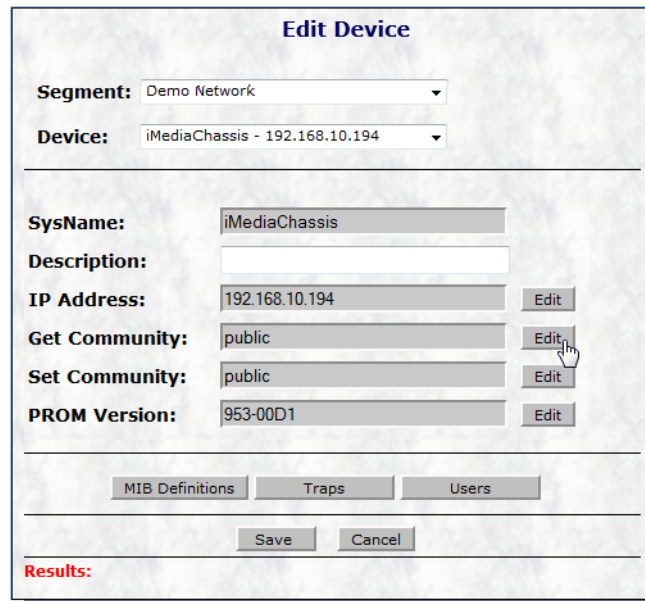


Figure 3.73 Edit Trap Configuration screen

3.3.8.11 Edit Get/Set Community

The Get Community and Set Community for a device can be changed through the Edit Device menu.

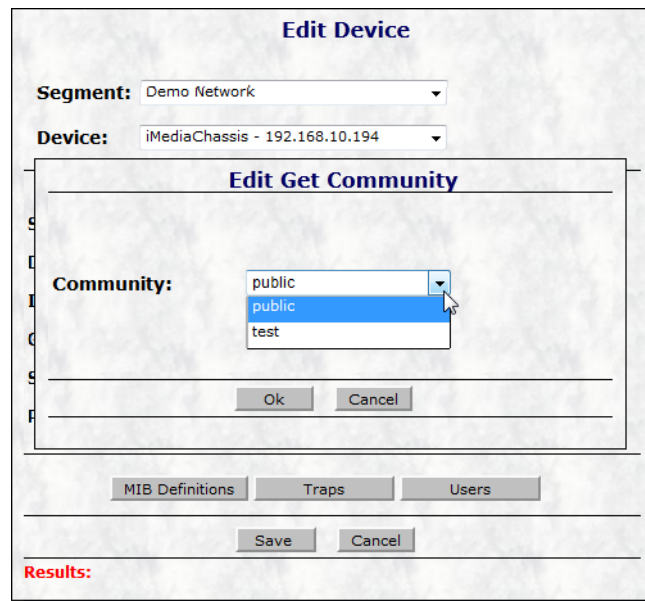
1. In the Edit Device screen, click **MIB Definitions** screen.
The Edit MIB Definitions screen displays.



The screenshot shows the 'Edit Device' screen. At the top, there are two dropdown menus: 'Segment' set to 'Demo Network' and 'Device' set to 'iMediaChassis - 192.168.10.194'. Below these are several input fields with 'Edit' buttons to their right: 'SysName' (iMediaChassis), 'Description' (empty), 'IP Address' (192.168.10.194), 'Get Community' (public), 'Set Community' (public), and 'PROM Version' (953-00D1). At the bottom, there are three buttons: 'MIB Definitions', 'Traps', and 'Users'. Below these are 'Save' and 'Cancel' buttons. A 'Results:' label is at the very bottom.

Figure 3.74 Edit Device screen

2. In the Set Community or Get Community field, click **Edit**.
The Edit Get Community screen displays.



The screenshot shows the 'Edit Device' screen with an 'Edit Get Community' dialog box overlaid. The dialog box has a 'Community:' label and a dropdown menu. The dropdown menu is open, showing three options: 'public', 'public', and 'test'. Below the dropdown are 'Ok' and 'Cancel' buttons. The background 'Edit Device' screen is partially visible, showing the 'MIB Definitions', 'Traps', and 'Users' buttons and the 'Save' and 'Cancel' buttons at the bottom.

Figure 3.75 Edit Get Community Screen

3. Click the drop-down menu and select the setting.
4. Click **OK** to accept the settings or **Cancel** to return to the previous menu.

3.3.8.12 Edit Users

The Users command button in the Edit Device screen allows for the definition of names, passwords, and access rights for configuration and administration of the device. There are three levels of access rights that can be assigned:

- Admin – Provides full read and write access.

- Operator – Provides full read and write access except for Users and PROM file updates.
- User – Provides read only for settings and no access for Users and PROM file updates.

3.3.8.13 Add a User

1. In the Edit Device screen, click Users.

The Edit Device Users screen displays.



Figure 3.76 Edit Device Users Screen

2. Click Add to display the User Settings screen.

The User Settings screen displays.

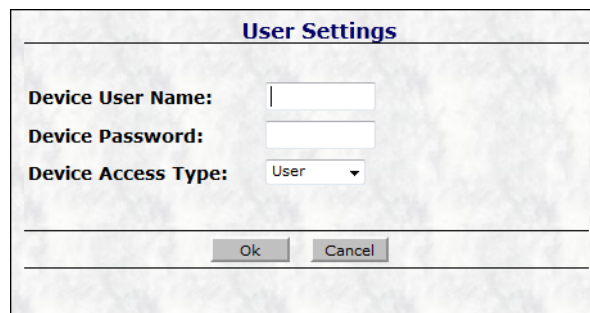


Figure 3.77 User Settings screen

3. Enter the user name, device password, and authorized access type to define the user profile.
4. Click Ok to accept the settings or Cancel to return to the previous menu.

The Processing Request display appears while the community changes are written to the device.

When the write community to device request is finished processing, the results appear in the Results section at the bottom of the screen.

3.3.8.14 Delete a User

Click Users command button in the Edit Device Screen display to open the Edit Device Users screen.

Select the user(s) you want to delete by using the mouse to set the check in the Delete checkbox.

Click Save command button in the Edit Device Users screen.

The Processing Request display will appear while the community changes are written to the device.

When the write community to device request is finished

3.3.9 Add Segment

Adding segments are used to organize the IMC network devices. At least one segment is required before you can add a device.

To add a segment:

1. Navigate to Network > Add Segment from the menu bar.
2. Click Add Segment.

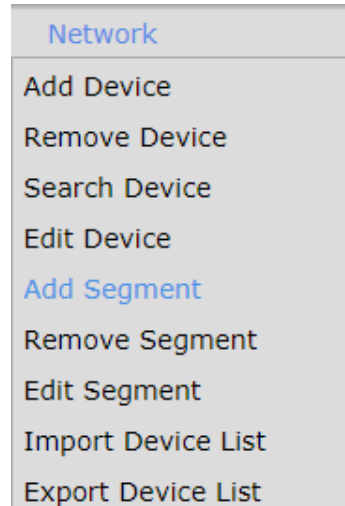


Figure 3.78 Add Segment Menu Command

The Add Segment menu displays.

3. In the Segment field, enter the information to use to identify this segment. This can consist of up to 50 alphanumeric characters. Duplicate segments are not allowed.

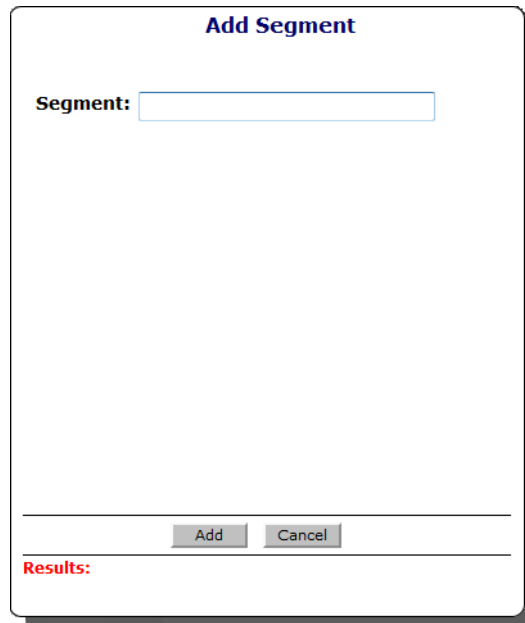
A screenshot of a dialog box titled "Add Segment". It contains a label "Segment:" followed by a text input field. At the bottom, there are two buttons: "Add" and "Cancel". Below the buttons, there is a section labeled "Results:" which is currently empty.

Figure 3.79 Add Segment Display

- Click **Add** to accept the entry in the database and update the Network Segment List display.
Click **Cancel** to return to the previous menu without accepting the entry.

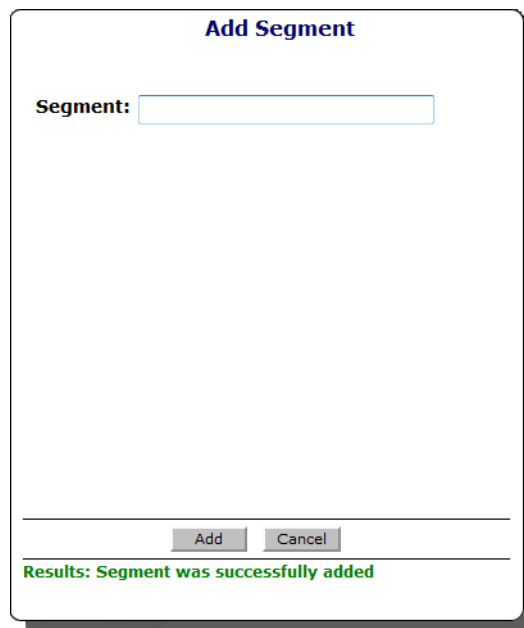


Figure 3.80 Successful Segment Addition Display

3.3.10 Remove Segment

Removing segments are used to remove and organize the IMC network devices. At least one segment is required to add a device.

To remove a segment:

- Navigate to Network > Remove Segment from the menu bar.
- Click **Remove Segment**.

Note! *Removing a segment will also remove any devices associated with that Segment.*

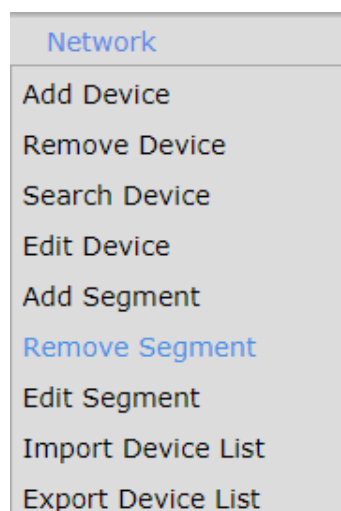


Figure 3.81 Remove Segment Menu Command

The Remove Segment screen displays.

- From the listing, select a segment to remove.

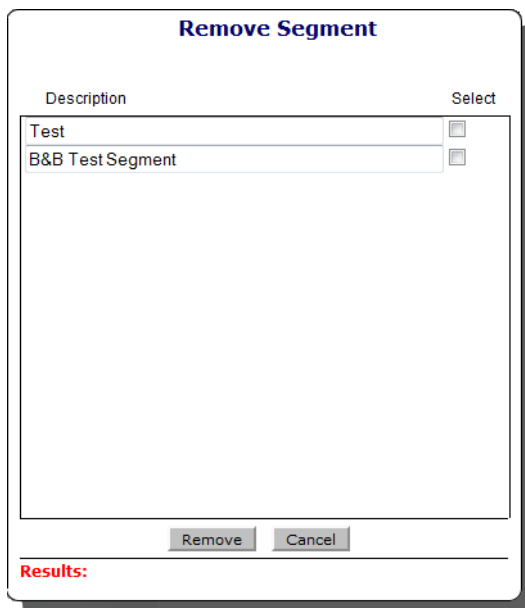


Figure 3.82 Remove Segment Screen

- Click Remove to delete it. A confirmation displays before deleting the segment.
- Click OK to remove the segment or Cancel to return to the previous menu.

Note! *Removing a segment will also remove any devices associated with that Segment.*

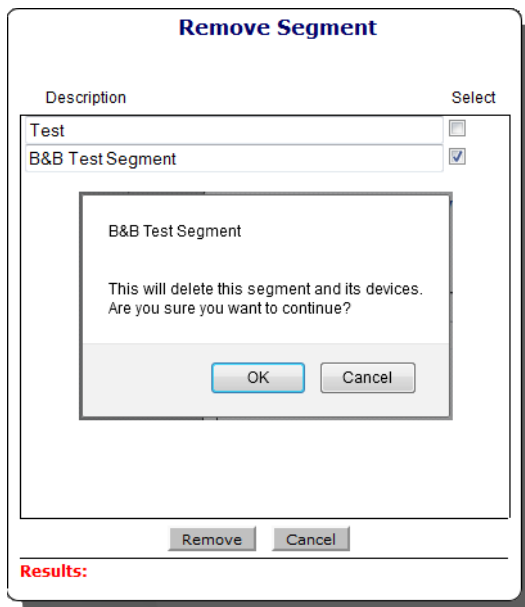


Figure 3.83 Remove Segment Confirmation Display

3.3.11 Edit Segment

The Edit Segment menu selection located in the Network menu commands controls the ability to edit segment names. Segments are used to organize your IMC network device selections. Editing a segment is a 3-step process: 1) Select the Segment(s) to edit, 2) Enter the new Segment naming information, and 3) Select the Save command button.

To edit a segment:

1. Navigate to Network > Edit Segment from the menu bar.
2. Click **Edit Segment**.

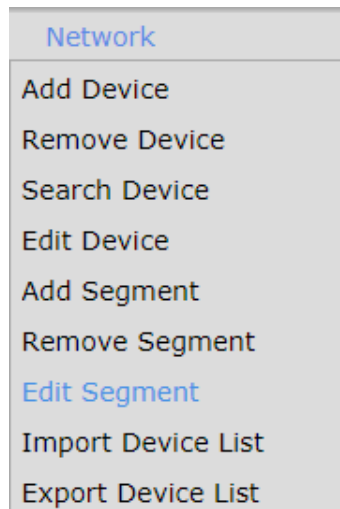


Figure 3.84 Edit Segment Menu Command

3. The Edit Segment page displays.
4. In the segment title, enter the new description to identify the segment.

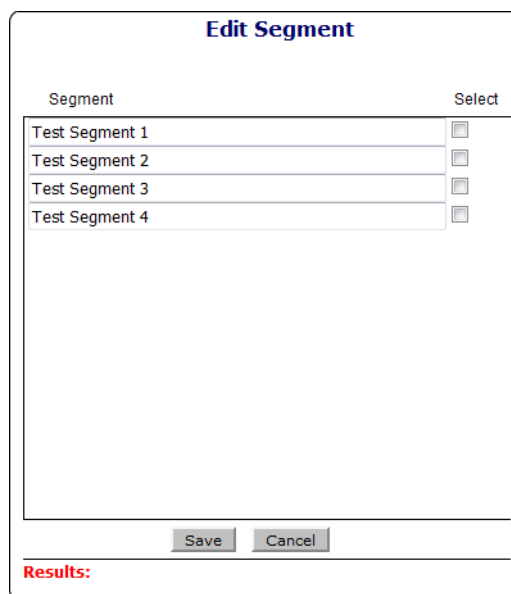


Figure 3.85 Edit Segment Screen

- When completed, select the segment(s) to edit. Every selected device is subject to editing. If a Segment is not selected, the changes do not take effect.

Segment	Select
Test Segment 100	<input checked="" type="checkbox"/>
Test Segment 2	<input type="checkbox"/>
Test Segment 3	<input type="checkbox"/>
Test Segment 4	<input type="checkbox"/>

Save Cancel

Results:

Figure 3.86 Enter Segment name change

- Click **Save** to accept the modifications or **Cancel** to return to the previous menu.

3.3.12 Import Device List

The Import Device List function provides the ability to add devices to iView² using a comma separated value (csv) file. Selecting the Import Device List from the menu displays the Import Device List screen.

To import a device list:

- Navigate to Network > Import Device List from the menu bar.
- Click **Import Device List**.

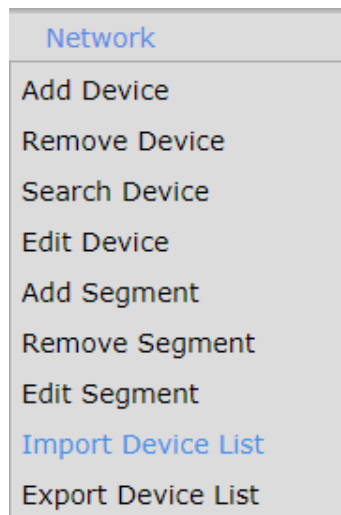


Figure 3.87 Import Device List Menu Command

The Import Device List screen displays.

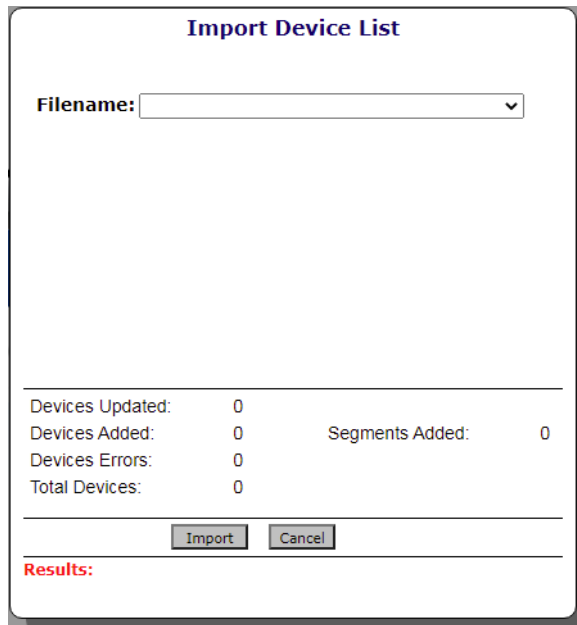


Figure 3.88 Import Device List screen

The server will look into the Import Files Path identified in the iView² System Settings and import the last 10 device import files it finds. The Import Device List screen will display these in order from most current to least current.

To import a device list:

Click the Filename drop-down menu to select a file. The server reads the file and extracts the device information.

- If a device is already contained in the iView database the following fields in the device_tree_table will be updated: nParentId, strIPAddress, strDNS, strMACAddress, strGetCommunity, strSetCommunity, strDeviceUser, and strDevicePassword will be updated with the information contained in the import file.
- If the device is not in the iView, the device will be added as new using the standard iView² Add Device functionality.
- If the Segment listed for the device in the import file does not exist, iView² will create the segment and associate the device with it.

When iView² is done with the import, the following information is displayed: Devices Updated, Devices Added, Devices Errors, Total Devices, and Segments Added.

3.3.12.1 Import Device List File Format

- The device list import file must have a .csv extension.
- The first row in the device list import file must contain the following column identifiers:
Device Id, Segment, Device Type, IP Address, Device Domain Name, MAC Address, Get Community, SET Community, Device User, Device Password
- The second row in the device list import file must contain the first device definition, for example:
5,North_Segment,iMediaChassis,10.30.8.162,,00:00:29:0E:1A:24,public,public,admin,admin
- Subsequent rows contain any other device definitions

3.3.12.2 Import Device List Column Definitions

- *Device Id* – This is an integer value which uniquely identifies a device in the iView² database. New devices will contain a zero in this field.

- *Segment* – This is a string value which uniquely identifies the segment that will group the device. This field must contain the unique name of an existing segment in iView² or the unique name of a new segment to add to iView².
- *Device Type* – This is a string value which serves as a generic identifier for a family of devices. This field can be left as an empty string () if the device type is not known and will be filled in automatically by iView².
- *IP Address* – This is a string value that will contain a properly formatted ip address. In the case where a device domain name will be used this to access the device, this field can be left as an empty string ().
- *Device Domain Name* – This is a string value that will contain a properly formatted device domain name. In the case where an ip address will be used to access the device, this field can be left as an empty string ().
- *MAC Address* – This is a string value that will contain a properly formatted mac address. This field can be left as an empty string () if the mac address is not known and will be filled in automatically by iView².
- *Get Community* – This is a string value that will contain the get community name that will be used by iView² for SNMP get access.
- *Set Community* – This is a string value that will contain the set community name that will be used by iView² for SNMP set access.
- *Device User* – This is a string value that will contain the user name that will be used by iView² for device access authentication.
- *Device Password* - This is a string value that will contain the user password that will be used by iView² for device access authentication.
- *Check* – This is an optional column. If included, this column takes an integer value of 0 or 1. A 1 means that iView² should not try to access the device during installation because this device is not yet active on the network, but it should still be added. By default iView² will not add devices that it cannot access during installation. A 0 means that iView² should try to access the device during installation.

3.3.13 Export Device List

The Export Device List function provides the ability to export devices listed in the iView² Network Segment List to a comma separated value (csv) file.

To export a device list:

1. Navigate to Network > Import Device List from the menu bar.
2. Click **Export Device List**.

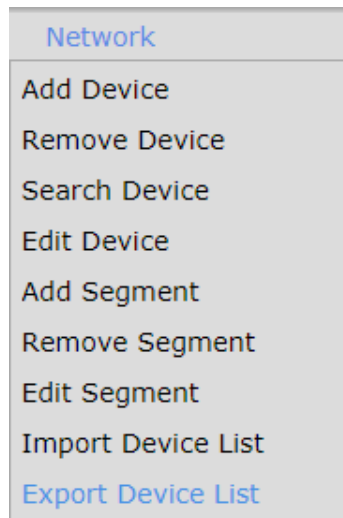


Figure 3.89 Export Device List Menu Command

The Export Device List screen displays.

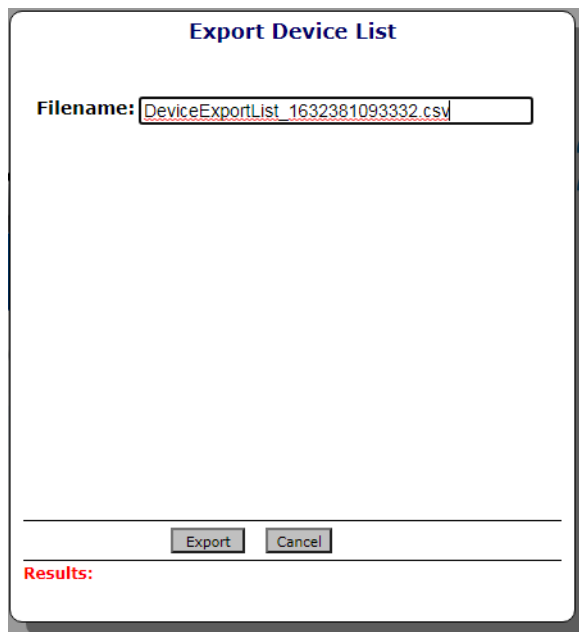


Figure 3.90 Export Device List screen

A default file name displays with a .csv extension in the Filename field. The user can change the file name, but the .csv extension is required.

3. Enter the name to identify the device list.
 4. Click **Export** to save the listing or **Cancel** to return to the previous menu.
- The server will create a comma separated value (csv) file listing all the devices in the iView² Network Segment List display. This file will be stored in the Export Files Path identified in the iView² System Settings.

3.3.14 Using the Chassis View

The iView² application provides access to specific unit, network, and management settings for saved devices under their respective segment list through the Chassis View menu.

The Chassis View menu is specific for each device type. Not all menu items are available for every device as the settings are device-specific. See the following figures for details.

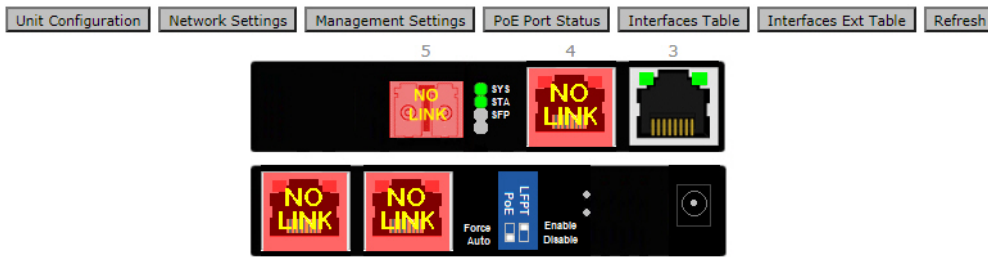


Figure 3.91 Chassis View for IMC-500 Series Device



Figure 3.92 Chassis View for EKI-5000 Series Device

Selecting a chassis from the iView Network Segment tree will display the default chassis view. The chassis view consists of 2 sections. The top section displays the Chassis Detail view and the bottom section displays the tables (i.e. Module Table, Port Table) associated with the chassis.

For instruction purposes the section as follows describing the Chassis View menu depicts an injector device type.

3.3.14.1 Unit Configuration

The following Unit Configuration menu describes the Chassis View menus available on an injector device.

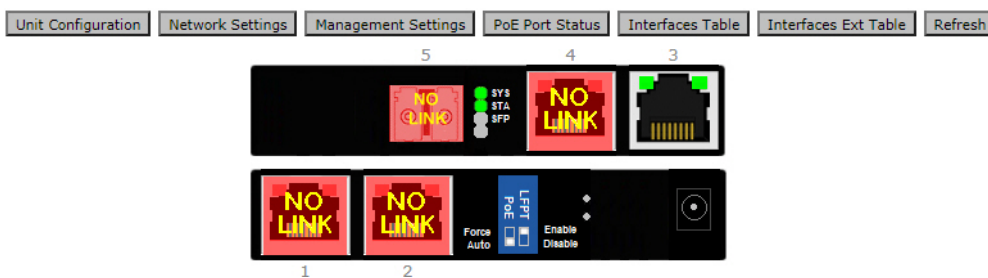


Figure 3.93 Chassis View Unit Configuration

The Unit Configuration table displays.

Unit Configuration Refresh	
Location:	<input type="text"/>
Description:	4 Gigabit Ethernet + 1 SFP Indust
Model Identification:	IMC-595MPI-PS-A
IP Address:	192.168.1.170
MAC Address:	74:FE:48:59:82:08
Version:	1.00
Revision:	ADV.00570
Device Up Time:	0 Days, 6 Hours, 12 Minutes, 51 S
Save Changes	

Figure 3.94 Unit Configuration

Item	Description
Refresh	Click to refresh the displayed information.
Location	Enter the string to identify the installation location of the device.
Description	Displays the description of the device.
Model Identification	Displays the model name of the device.
IP Address	Displays the configured IP address of the device.
MAC Address	Displays the MAC address of the device.
Version	Displays the firmware version of the device.
Revision	Displays the firmware revisions of the device.
Device Up Time	Displays the concurrent time during which the device is in operation.
Save Changes	Click to save the setting changes as seen on the screen.

3.3.14.2 Network Settings

The following Network Settings menu describes the Chassis View menus available on an injector device.

- To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
- Click **Network Settings** to view the Network Settings table.

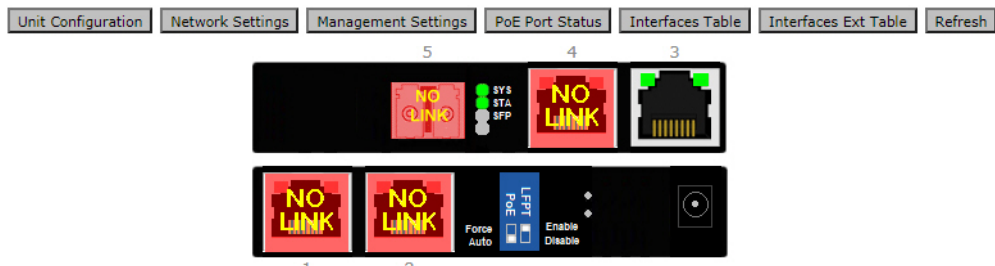


Figure 3.95 Chassis View Network Settings

The Network Settings table displays.

Network Settings		Refresh
IP Address:	<input type="text" value="192.168.1.170"/>	
Network Mask:	<input type="text" value="255.255.255.0"/>	
Gateway:	<input type="text" value="192.168.1.1"/>	
Mode:	STATIC ▾	
Save Changes		

Figure 3.96 Network Settings

Item	Description
Refresh	Click to refresh the displayed information.
IP Address	Enter the IP address to assign the device.
Network Mask	Enter the network mask to assign the device.
Gateway	Enter the gateway setting to assign the device.
Mode	Click the drop-down menu to select the network settings mode: Static or DHCP.
Save Changes	Click to save the setting changes as seen on the screen.

3.3.14.3 Management Settings

The following Management Settings menu describes the Chassis View menus available on an injector device.

1. To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
2. Click **Management Settings** to view the Management Settings table.

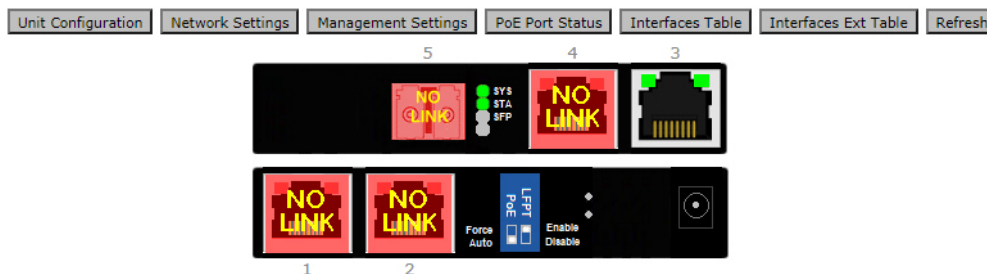


Figure 3.97 Chassis View Management Settings

The Management Settings table displays.

Management Settings		<input type="button" value="Refresh"/>
SNMP Version:	<input type="text" value="2"/>	
Get Community:	<input type="text" value="public"/>	
Set Community:	<input type="text" value="public"/>	
Trap Server IP Address:	<input type="text"/>	
Enable LLDP:	<input type="button" value="DISABLE"/>	
LLDP Interval:	<input type="text" value="30"/> (5~32767 seconds)	
Broadcast Storm Control:	<input type="button" value="DISABLE"/>	
Broadcast Storm Rate:	<input type="text" value="6"/> (1~1000 Mbps)	
Modbus TCP Timeout:	<input type="text" value="10"/> (1~300 seconds)	
Operation Mode:	<input type="button" value="Injector"/>	
<input type="button" value="Save Changes"/>		<input type="button" value="Reboot"/> <input type="button" value="Reset"/>
FW Upgrade:	<input type="text" value="-----"/>	
<input type="button" value="Upgrade"/>		

Figure 3.98 Management Settings

Item	Description
SNMP Version	Displays the SNMP version of the current device.
Get Community	Enter the community string for field--up to thirteen characters of spaces and special characters are permitted. Community strings are case sensitive.
Set Community	Enter the community string for field--up to thirteen characters of spaces and special characters are permitted. Community strings are case sensitive.
Trap Server IP Address	Enter the IP address of the remote SNMP server.
Enable LLDP	Click the drop-down menu to enable or disable (default) the Link Layer Discovery Protocol (LLDP) standard.
View LLDP Table	Click the drop-down menu to enable or disable (default) the Link Layer Discovery Protocol (LLDP) standard.
LLDP Interval	Enter a value to define the allowable range (5 to 32767).
Broadcast Storm Control	Click the drop-down menu to enable or disable (default) the broadcast storm control function.
Broadcast Storm Rate	Enter a value in Mbps to designate the threshold for the traffic level (1 to 1000).
Modbus TCP Timeout	Enter a value in seconds to designate the timeout threshold for Modbus TCP (1 to 300).
Operation Mode	Click the drop-down menu to select the operation mode of the device. Modes: Injector, Switch.
Save Changes	Click to save the setting changes as seen on the screen.
Reboot	Click to reboot the device. Note: any unsaved settings will be lost once the function is initiated.
Reset	Click to reset the device to the factory settings configuration.
FW Upgrade	Click the drop-down menu to select the firmware file.
Upgrade	Click to initiate the uploading of the selected firmware file.

3.3.14.3.1 Function Description

Function	Description
SNMP	Simple Network Management Protocol (SNMP) is a protocol to facilitate the monitoring and exchange of management information between network devices. Through SNMP, the health of the network or status of a particular device can be determined.
SNMP Community	SNMP v1 and SNMP v2c use the group name (Community Name) certification. It's role is similar to the password function. If SNMP v1 and SNMP v2c are used, you can go directly from the configuration settings to this page to configure the SNMP community.
SNMP Trap	This page allows you to set the SNMP Trap IP address.
LLDP	LLDP is a one-way protocol without request/response sequences. Information is advertised by stations implementing the transmit function, and is received and processed by stations implementing the receive function.
Broadcast Storm Control	The Broadcast Storm Control allows you to setup (1 ~ 1000 Mbps) to manage the occurrence of Broadcast packet flooding on the LAN and consequent traffic to prevent the degrading of network performance.
Operation Mode	Support Injector mode and Switch mode (default Injector mode).
Reset	Reset configuration to default value.
Reboot	Reboot device.
Firmware Upgrade	The Upgrade Manager allows to upload firmware upgrade images.
Save Configuration	Click Save Change to have configuration changes you have made to be saved across a system reboot.
Modbus TCP	The Modbus TCP function allows for client-server communication between a device module (server) and a device in the networking running MODBUS client software (client).

3.3.14.3.2 View LLDP Table

- To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
- Click **Management Settings > View LLDP Table** to view the LLDP Connection Information table.
Note: The LLDP must be enabled to access the View LLDP Table. The LLDP Connection Information table displays.

Table Index	Local Port Num	Index	Chassis Subtype	Chassis Id	Port Subtype	Port Id	Systems Supported	Systems Enabled
1	3	1	MAC Address	40:9B:CD:EC:8F:C9	Interface Alias	7		

Figure 3.99 LLDP Connection Information Table

Item	Description
Refresh	Click to refresh the information.
Close	Click to close the table and return to the previous menu.
Table Index	Displays the table identifier.
Local Port Num	Displays the port number of the logical LLDP port.
Index	Displays the entry index of the LLDP connection.
Chassis Subtype	Displays the type of chassis ID (such as MAC address).
Chassis ID	Displays the identifier of the chassis.
Port Subtype	Displays the type of port identifier.

Item	Description
Port ID	Displays the port identifier.
Systems Supported	Displays the supported functions of the device.
Systems Enabled	Displays the enabled function(s) of the device.

3.3.15 Power Over Ethernet

Power Over Ethernet is the function supplying power to Powered Devices (PD) through the device in the event that AC power is not readily available.

Power over Ethernet can be used for the following areas:

- Surveillance devices
- I/O sensors for security requirements
- Wireless access points

3.3.15.1 PoE Power Mode

The DIP switch on the side allows users to switching between Force mode and Auto mode.

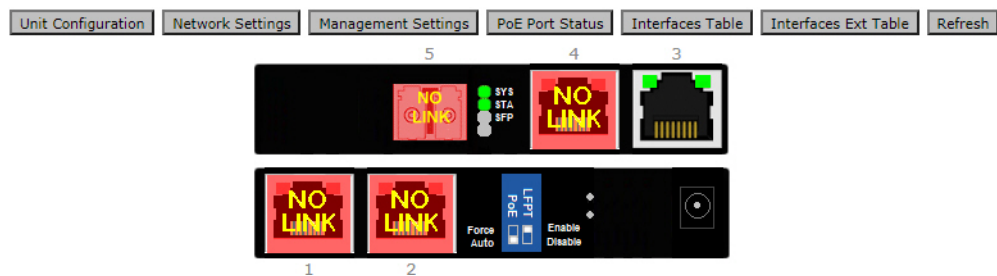


Figure 3.100 PoE Power Mode

3.3.15.2 PoE Port Status

The following PoE Port Status menu describes the Chassis View menus available on an injector device.

The function allows you to monitor the power consumption of the specific interface.

1. To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
2. Click **PoE Port Status** to view the IPoE Port Status table.

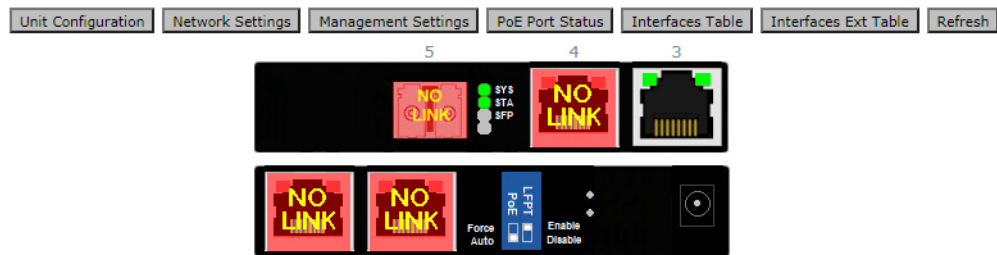


Figure 3.101 Chassis View PoE Port Status

The PoE Port Status table displays.

The PoE Port Status lists information, Such as Port Index, State, Power (W), Current (mA), Voltage (V)

PoE Port Status					Refresh
Index	State	Power(W)	Current(mA)	Voltage(V)	
1	Disable	0.0	0	0.0	Reset
2	Enable	0.0	0	0.0	Reset

Figure 3.102 PoE Port Status

Item	Description
Refresh	Click to refresh the displayed information.
Index	Displays the port index identifier.
State	Displays the state of the PoE Port.
Power (W)	Displays the power of the PoE Port status (W).
Current (MA)	Displays the current of the PoE Port status (mA).
Voltage (V)	Displays the voltage of the PoE port status (V).
Reset	Click to reset the specified index.

3.3.16 Interfaces Monitoring

The monitoring functionality includes listing of port statistics.

3.3.16.1 Interfaces Table

The following Interfaces Table menu describes the Chassis View menus available on an injector device.

1. To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
2. Click **Interfaces Table** to view the Interfaces Table Statistics.

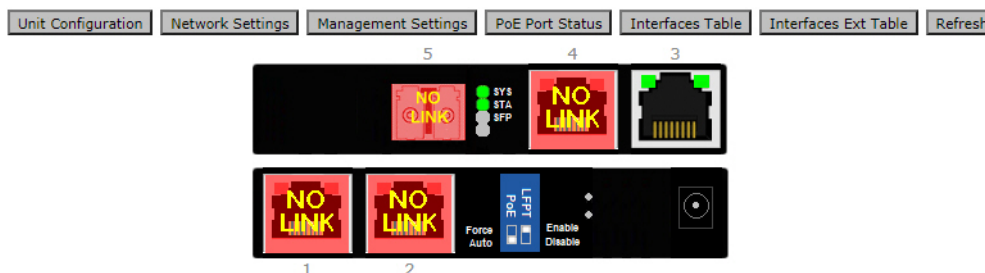


Figure 3.103 Chassis View Interfaces Table

The Interfaces Extension Table Statistics table displays.

The Interface table for Port Speed, Oper status and IF MIB Counters settings are informational only: In Octets, In UCastPkts, In Non-UCastPkts, In Discards, In Errors Out Octets, Out UCastPkts, Out Non-Ucast- Pkts, Out Discards, Out Errors.

Interface	Speed	Oper Status	In Octets	In UCast Pkts	In Non-UCast Pkts	In Discards	In Errors
Port 1,1000RX,RJ45	0	DOWN	0	0	0	0	0
Port 2,1000RX,RJ45	0	DOWN	0	0	0	0	0
Port 3,1000RX,RJ45	1,000,000,000	UP	745,131	203	4,647	0	0
Port 4,1000RX,RJ45	0	DOWN	0	0	0	0	0
Port 5,1000RX,Fiber	0	DOWN	0	0	0	0	0

Figure 3.104 Interfaces Table Statistics

Item	Description
Refresh	Click to refresh the information.
Close	Click to close the table and return to the previous menu.
Interface	Lists the available interface(s).
Speed	Displays the current interface speed.
Oper Status	Displays the operational status of the interface.
In Octets	Displays the total number of octets received.
In UCast Pkts	Displays the number of good unicast packets received.
In Non-UCast Pkts	Displays the number of non unicast packets received.
In Discards	Displays the number of discarded received packets.
In Errors	Displays the number of packets with errors received.
Out Octets	Displays the total number of octets transmitted.
Out UCast Pkts	Displays the number of good unicast packets transmitted.
Out Non-UCast Pkts	Displays the number of non unicast packets transmitted.
Out Discards	Displays the number of discarded transmitted packets.
Out Errors	Displays the number of packets with errors transmitted.

3.3.16.2 Interfaces Ext Table

The following Interfaces Ext Table menu describes the Chassis View menus available on an injector device.

- To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
- Click **Interfaces Ext Table** to view the Interfaces Extension Table Statistics.

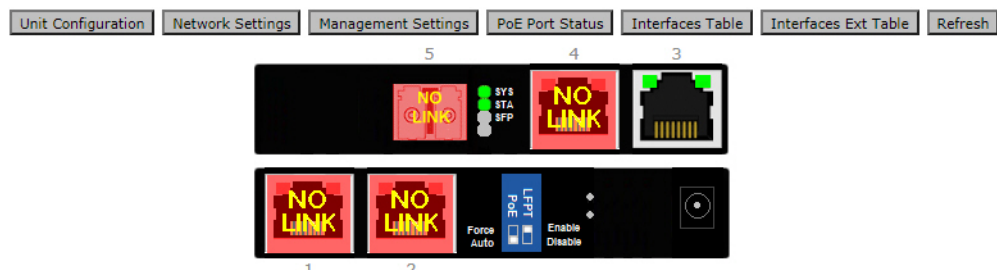


Figure 3.105 Chassis View Interfaces Ext Table

The Interfaces Extension Table Statistics table displays.

Interface	In Multicast Pkts	In Broadcast Pkts	Out Multicast Pkts	Out Broadcast Pkts	In HC Octets	In HC UCast Pkts	In
Port 1	0	0	0	0	0	0	
Port 2	0	0	0	0	0	0	
Port 3	1,713	1,383	0	1	504,224	141	
Port 4	0	0	0	0	0	0	
Port 5	0	0	0	0	0	0	

Figure 3.106 Interfaces Extension Table Statistics

Item	Description
Refresh	Click to refresh the information.
Close	Click to close the table and return to the previous menu.
Interface	Lists the available interface(s).
In Multicast Pkts	Displays the number of multicast packets received.
In Broadcast Pkts	Displays the number of non-unicast (i.e., subnetwork- broadcast or subnetwork-multicast) packets being delivered.
Out Multicast Pkts	Displays the number of non-unicast (i.e., subnetwork- broadcast or subnetwork-multicast) packets being transmitted.
Out Broadcast Pkts	Displays the number of non-unicast (i.e., subnetwork- broadcast or subnetwork-multicast) packets being transmitted.
In HC Octets	Displays the number of octets received by the interface.
In HC UCast Pkts	Displays the number of packets, received by this sub-layer to a higher (sub-)layer, which were not addressed to a multicast or broadcast address at this sub-layer.
In HC Multicast Pkts	Displays the number of packets received from this sub-layer from a higher (sub-)layer, which were addressed to a multicast address at this sub-layer.
In HC Broadcast Pkts	Displays the number of packets the number of packets, received by this sub-layer from a higher (sub-)layer, which were addressed to a broadcast address.
Out HC Octets	Displays the number of octets transmitted by the interface.
Out HC UCast Pkts	Displays the number of packets, transmitted by this sub-layer to a higher (sub-)layer, which were not addressed to a multicast or broadcast address at this sub-layer.
Out HC Multicast Pkts	Displays the number of packets delivered by this sub-layer to a higher (sub-)layer, which were addressed to a multicast address at this sub-layer.
Out HC Broadcast Pkts	Displays the number of packets the number of packets, delivered by this sub-layer to a higher (sub-)layer, which were addressed to a broadcast address at this sub-layer.

3.3.17 Link Fail Pass Through (LFPT)

Link Fault Pass Through is a diagnostic feature that allows troubleshooting by enabling it.

The feature allows both end segments of the conversion to detect link faults occurring in the media conversion chain. For the Device, the end user can specify which port to enable the feature on. LFPT cannot be enabled on any combination of ports.

Enabling LFPT from one specific port to another in case a link failure occurs. This is available on all ports.

Unit LFPT displays the following screen:

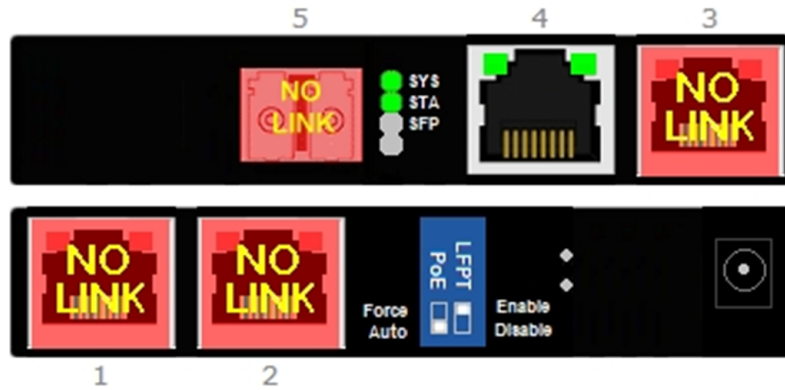


Figure 3.107 LFPT View

The LFPT status description is as follows.

Role	Master (Port 3)	Slave (Port 1)	Master (Port 4)	Slave (Port 2)
Link Status	Up	Up, PoE enable	Up	Up, PoE enable
	Down	Down, PoE disable	Down	Down, PoE disable

3.3.17.1 Refresh

The following Refresh menu describes the Chassis View menus available on an injector device.

- To view the menu, from the segment list, click on a device. The chassis view displays, see the following figure.
- Click **Refresh** to refresh the chassis view.

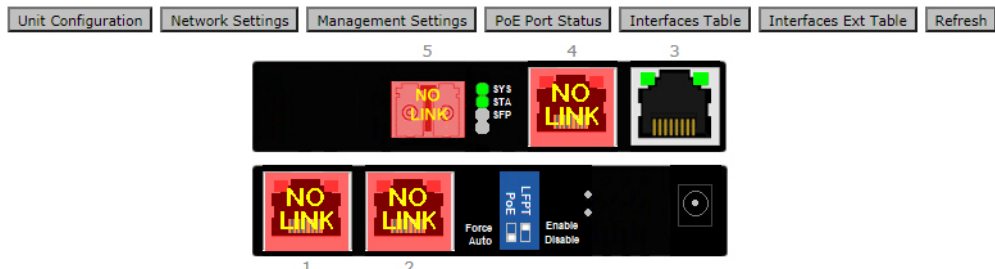


Figure 3.108 Chassis View Refresh

3.3.18 Modbus/TCP Mapping Table

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
System Info	Vendor ID = 0x'13FE	1 word	16 bits	HEX	0x0000	30001	Vendor ID = 0x13FE
	Unit ID = 0xFF	1 word	16 bits	HEX	0x0001	30002	Unit ID = 0xFF
	Product Code	1 word	16 bits	HEX	0x0002	30003	Product Code

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
System Info	Vendor Name = "Advantech"	"16 words 32 chars	ASCII	0x0010	30017	Vendor Name = "Advantech" Word 0 Hi byte = 'A' Word 0 Lo byte = 'd' Word 1 Hi byte = 'v' Word 1 Lo byte = 'a' Word 2 Hi byte = 'n' Word 2 Lo byte = 't' Word 3 Hi byte = 'e' Word 3 Lo byte = 'c' Word 4 Hi byte = 'h' Word 4 Lo byte = '\0'
	Product Name = "IMC-595MPI"	"16 words 32 chars	ASCII	0x0020	30033	Product Name = "IMC-595MPI" Word 0 Hi byte = 'I' Word 0 Lo byte = 'M' Word 1 Hi byte = 'C' Word 1 Lo byte = '-' Word 2 Hi byte = '5' Word 2 Lo byte = '9' Word 3 Hi byte = '5' Word 3 Lo byte = 'M' Word 4 Lo byte = 'P' Word 5 Hi byte = 'I' Word 6 Hi byte = '\0'
	Firmware Version	2 words 32 bits	HEX	0x020A	30523	Firmware Version Word 0 Hi byte = major Word 0 Lo byte = minor Word 1 Hi byte = release Word 1 Lo byte = build
	Ethernet MAC Address	3 words 48 bits	HEX	0x020E	30527	Ethernet MAC Address Ex: MAC = 00-19-CB-01-02-03 Word 0 Hi byte = 0x00 Word 0 Lo byte = 0x19 Word 1 Hi byte = 0xCB Word 1 Lo byte = 0x01 Word 2 Hi byte = 0x02 Word 2 Lo byte = 0x03

Catalog	Name	Data Type		Interpretation	Address Offset (Hex)	Address 3X	Description
System Info	Revision Number	16 words	32 chars	ASCII	0x0211	30530	Product Name = "YYY.xxxxx" Word 0 Hi byte = 'Y' Word 0 Lo byte = 'Y' Word 1 Hi byte = 'Y' Word 1 Lo byte = ' Word 2 Hi byte = 'x' Word 2 Lo byte = 'x' Word 3 Hi byte = 'x' Word 3 Lo byte = 'x' Word 4 Hi byte = 'x' Word 4 Lo byte = '0'
	IP Address	2 words	32 bits	HEX	0x0400	31025	IP Address Ex: IP = 192.168.1.1 Word 0 Hi byte = 0xC0 Word 0 Lo byte = 0xA8 Word 1 Hi byte = 0x01 Word 1 Lo byte = 0x01
Port Info	Port Status	1 word	16 bits	HEX	0x1000 ~ 0x101F	34097 ~34128	Port Status 0x0000: Link down 0x0001: Link up 0xFFFF: No port
	Port 1 Status	1 word	16 bits	HEX	0x1000	34097	
	Port 2 Status	1 word	16 bits	HEX	0x1001	34098	
	Port 3 Status	1 word	16 bits	HEX	0x1002	34099	
	Port 4 Status	1 word	16 bits	HEX	0x1003	34100	
	Port 5 Status	1 word	16 bits	HEX	0x1004	34101	
	Port 6 Status	1 word	16 bits	HEX	0x1005	34102	
	Port 7 Status	1 word	16 bits	HEX	0x1006	34103	
	Port 8 Status	1 word	16 bits	HEX	0x1007	34104	
	Port 9 Status	1 word	16 bits	HEX	0x1008	34105	
	Port 10 Status	1 word	16 bits	HEX	0x1009	34106	
	Port 11 Status	1 word	16 bits	HEX	0x100A	34107	
	Port 12 Status	1 word	16 bits	HEX	0x100B	34108	
	Port 13 Status	1 word	16 bits	HEX	0x100C	34109	
	Port 14 Status	1 word	16 bits	HEX	0x100D	34110	
	Port 15 Status	1 word	16 bits	HEX	0x100E	34111	
	Port 16 Status	1 word	16 bits	HEX	0x100F	34112	
	Port 17 Status	1 word	16 bits	HEX	0x1010	34113	
	Port 18 Status	1 word	16 bits	HEX	0x1011	34114	
	Port 19 Status	1 word	16 bits	HEX	0x1012	34115	
	Port 20 Status	1 word	16 bits	HEX	0x1013	34116	
	Port 21 Status	1 word	16 bits	HEX	0x1014	34117	
	Port 22 Status	1 word	16 bits	HEX	0x1015	34118	
	Port 23 Status	1 word	16 bits	HEX	0x1016	34119	
	Port 24 Status	1 word	16 bits	HEX	0x1017	34120	
	Port 25 Status	1 word	16 bits	HEX	0x1018	34121	
	Port 26 Status	1 word	16 bits	HEX	0x1019	34122	
	Port 27 Status	1 word	16 bits	HEX	0x101A	34123	
	Port 28 Status	1 word	16 bits	HEX	0x101B	34124	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
	Port 29 Status	1 word	16 bits	HEX	0x101C	34125	
	Port 30 Status	1 word	16 bits	HEX	0x101D	34126	
	Port 31 Status	1 word	16 bits	HEX	0x101E	34127	
	Port 32 Status	1 word	16 bits	HEX	0x101F	34128	
	Port Speed	1 word	16 bits	HEX	0x1100 ~ 0x111F	34353 ~ 34384	Port Speed 0x0000: 10M-Half 0x0001: 10M-Full 0x0002: 100M-Half 0x0003: 100M-Full 0x0004: 1000M-Half 0x0005: 1000M-Full 0xFFFF: No port
Port Info	Port 1 Speed	1 word	16 bits	HEX	0x1100	34353	
	Port 2 Speed	1 word	16 bits	HEX	0x1101	34354	
	Port 3 Speed	1 word	16 bits	HEX	0x1102	34355	
	Port 4 Speed	1 word	16 bits	HEX	0x1103	34356	
	Port 5 Speed	1 word	16 bits	HEX	0x1104	34357	
	Port 6 Speed	1 word	16 bits	HEX	0x1105	34358	
	Port 7 Speed	1 word	16 bits	HEX	0x1106	34359	
	Port 8 Speed	1 word	16 bits	HEX	0x1107	34360	
	Port 9 Speed	1 word	16 bits	HEX	0x1108	34361	
	Port 10 Speed	1 word	16 bits	HEX	0x1109	34362	
	Port 11 Speed	1 word	16 bits	HEX	0x110A	34363	
	Port 12 Speed	1 word	16 bits	HEX	0x110B	34364	
	Port 13 Speed	1 word	16 bits	HEX	0x110C	34365	
	Port 14 Speed	1 word	16 bits	HEX	0x110D	34366	
	Port 15 Speed	1 word	16 bits	HEX	0x110E	34367	
	Port 16 Speed	1 word	16 bits	HEX	0x110F	34368	
	Port 17 Speed	1 word	16 bits	HEX	0x1110	34369	
	Port 18 Speed	1 word	16 bits	HEX	0x1111	34370	
	Port 19 Speed	1 word	16 bits	HEX	0x1112	34371	
	Port 20 Speed	1 word	16 bits	HEX	0x1113	34372	
	Port 21 Speed	1 word	16 bits	HEX	0x1114	34373	
	Port 22 Speed	1 word	16 bits	HEX	0x1115	34374	
	Port 23 Speed	1 word	16 bits	HEX	0x1116	34375	
	Port 24 Speed	1 word	16 bits	HEX	0x1117	34376	
	Port 25 Speed	1 word	16 bits	HEX	0x1118	34377	
	Port 26 Speed	1 word	16 bits	HEX	0x1119	34378	
	Port 27 Speed	1 word	16 bits	HEX	0x111A	34379	
	Port 28 Speed	1 word	16 bits	HEX	0x111B	34380	
	Port 29 Speed	1 word	16 bits	HEX	0x111C	34381	
	Port 30 Speed	1 word	16 bits	HEX	0x111D	34382	
	Port 31 Speed	1 word	16 bits	HEX	0x111E	34383	
	Port 32 Speed	1 word	16 bits	HEX	0x111F	34384	
	Flow Control	1 word	16 bits	HEX	0x1200 ~ 0x121F	34609 ~ 34640	Flow Control 0x0000: Off 0x0001: On 0xFFFF: No port
	Port 1 Flow Control	1 word	16 bits	HEX	0x1200	34609	
	Port 2 Flow Control	1 word	16 bits	HEX	0x1201	34610	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
	Port 3 Flow Control	1 word 16 bits	HEX	0x1202	34611	
	Port 4 Flow Control	1 word 16 bits	HEX	0x1203	34612	
	Port 5 Flow Control	1 word 16 bits	HEX	0x1204	34613	
	Port 6 Flow Control	1 word 16 bits	HEX	0x1205	34614	
	Port 7 Flow Control	1 word 16 bits	HEX	0x1206	34615	
	Port 8 Flow Control	1 word 16 bits	HEX	0x1207	34616	
	Port 9 Flow Control	1 word 16 bits	HEX	0x1208	34617	
	Port 10 Flow Control	1 word 16 bits	HEX	0x1209	34618	
	Port 11 Flow Control	1 word 16 bits	HEX	0x120A	34619	
	Port 12 Flow Control	1 word 16 bits	HEX	0x120B	34620	
	Port 13 Flow Control	1 word 16 bits	HEX	0x120C	34621	
	Port 14 Flow Control	1 word 16 bits	HEX	0x120D	34622	
	Port 15 Flow Control	1 word 16 bits	HEX	0x120E	34623	
	Port 16 Flow Control	1 word 16 bits	HEX	0x120F	34624	
	Port 17 Flow Control	1 word 16 bits	HEX	0x1210	34625	
	Port 18 Flow Control	1 word 16 bits	HEX	0x1211	34626	
	Port 19 Flow Control	1 word 16 bits	HEX	0x1212	34627	
	Port 20 Flow Control	1 word 16 bits	HEX	0x1213	34628	
	Port 21 Flow Control	1 word 16 bits	HEX	0x1214	34629	
	Port 22 Flow Control	1 word 16 bits	HEX	0x1215	34630	
	Port 23 Flow Control	1 word 16 bits	HEX	0x1216	34631	
	Port 24 Flow Control	1 word 16 bits	HEX	0x1217	34632	
	Port 25 Flow Control	1 word 16 bits	HEX	0x1218	34633	
	Port 26 Flow Control	1 word 16 bits	HEX	0x1219	34634	
	Port 27 Flow Control	1 word 16 bits	HEX	0x121A	34635	
	Port 28 Flow Control	1 word 16 bits	HEX	0x121B	34636	
	Port 29 Flow Control	1 word 16 bits	HEX	0x121C	34637	

Catelog	Name	Data Type		Interpretation	Address Offset (Hex)	Address 3X	Description
	Port 30 Flow Control	1 word	16 bits	HEX	0x121D	34638	
	Port 31 Flow Control	1 word	16 bits	HEX	0x121E	34639	
	Port 32 Flow Control	1 word	16 bits	HEX	0x121F	34640	
	Port Description	20 words	40 chars	ASCII	0x1400 ~ 0x166C	35121 ~ 35741	Port Description = "100RX,RJ45." Word 0 Hi byte = '1' Word 0 Lo byte = '0' Word 1Hi byte = '0' Word 1 Lo byte = 'R' Word 2 Hi byte = 'X' Word 2 Lo byte = ',' Word 3 Hi byte = 'R' Word 3 Lo byte = 'J' Word 4 Hi byte = '4' Word 4 Lo byte = '5' Word 5 Hi byte = '.' Word 5 Lo byte = '\0'
Port Info	Port 1 Description	20 words	40 chars	ASCII	0x1400	35121	
	Port 2 Description	20 words	40 chars	ASCII	0x1414	35141	
	Port 3 Description	20 words	40 chars	ASCII	0x1428	35161	
	Port 4 Description	20 words	40 chars	ASCII	0x143C	35181	
	Port 5 Description	20 words	40 chars	ASCII	0x1450	35201	
	Port 6 Description	20 words	40 chars	ASCII	0x1464	35221	
	Port 7 Description	20 words	40 chars	ASCII	0x1478	35241	
	Port 8 Description	20 words	40 chars	ASCII	0x148C	35261	
	Port 9 Description	20 words	40 chars	ASCII	0x14A0	35281	
	Port 10 Description	20 words	40 chars	ASCII	0x14B4	35301	
	Port 11 Description	20 words	40 chars	ASCII	0x14C8	35321	
	Port 12 Description	20 words	40 chars	ASCII	0x14DC	35341	
	Port 13 Description	20 words	40 chars	ASCII	0x14F0	35361	
	Port 14 Description	20 words	40 chars	ASCII	0x1504	35381	
	Port 15 Description	20 words	40 chars	ASCII	0x1518	35401	
	Port 16 Description	20 words	40 chars	ASCII	0x152C	35421	
	Port 17 Description	20 words	40 chars	ASCII	0x1540	35441	
	Port 18 Description	20 words	40 chars	ASCII	0x1554	35461	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
Port Info	Port 19 Description	20 words	40 chars	ASCII	0x1568	35481
	Port 20 Description	20 words	40 chars	ASCII	0x157C	35501
	Port 21 Description	20 words	40 chars	ASCII	0x1590	35521
	Port 22 Description	20 words	40 chars	ASCII	0x15A4	35541
	Port 23 Description	20 words	40 chars	ASCII	0x15B8	35561
	Port 24 Description	20 words	40 chars	ASCII	0x15CC	35581
	Port 25 Description	20 words	40 chars	ASCII	0x15E0	35601
	Port 26 Description	20 words	40 chars	ASCII	0x15F4	35621
	Port 27 Description	20 words	40 chars	ASCII	0x1608	35641
	Port 28 Description	20 words	40 chars	ASCII	0x161C	35661
	Port 29 Description	20 words	40 chars	ASCII	0x1630	35681
	Port 30 Description	20 words	40 chars	ASCII	0x1644	35701
	Port 31 Description	20 words	40 chars	ASCII	0x1658	35721
	Port 32 Description	20 words	40 chars	ASCII	0x166C	35741
Link Up Counter	1 word	16 bits	HEX	0x1700 ~ 0x171F	35889 ~ 35920	Link Up Counter Ex: port link up counter = 13 Received MOD-BUS response: 0x000D
Port 1 Link Up Counter	1 word	16 bits	HEX	0x1700	35889	
Port 2 Link Up Counter	1 word	16 bits	HEX	0x1701	35890	
Port 3 Link Up Counter	1 word	16 bits	HEX	0x1702	35891	
Port 4 Link Up Counter	1 word	16 bits	HEX	0x1703	35892	
Port 5 Link Up Counter	1 word	16 bits	HEX	0x1704	35893	
Port 6 Link Up Counter	1 word	16 bits	HEX	0x1705	35894	
Port 7 Link Up Counter	1 word	16 bits	HEX	0x1706	35895	
Port 8 Link Up Counter	1 word	16 bits	HEX	0x1707	35896	
Port 9 Link Up Counter	1 word	16 bits	HEX	0x1708	35897	
Port 10 Link Up Counter	1 word	16 bits	HEX	0x1709	35898	
Port 11 Link Up Counter	1 word	16 bits	HEX	0x170A	35899	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
Port Info	Port 12 Link Up Counter	1 word	16 bits	HEX	0x170B	35900	
	Port 13 Link Up Counter	1 word	16 bits	HEX	0x170C	35901	
	Port 14 Link Up Counter	1 word	16 bits	HEX	0x170D	35902	
	Port 15 Link Up Counter	1 word	16 bits	HEX	0x170E	35903	
	Port 16 Link Up Counter	1 word	16 bits	HEX	0x170F	35904	
	Port 17 Link Up Counter	1 word	16 bits	HEX	0x1710	35905	
	Port 18 Link Up Counter	1 word	16 bits	HEX	0x1711	35906	
	Port 19 Link Up Counter	1 word	16 bits	HEX	0x1712	35907	
	Port 20 Link Up Counter	1 word	16 bits	HEX	0x1713	35908	
	Port 21 Link Up Counter	1 word	16 bits	HEX	0x1714	35909	
	Port 22 Link Up Counter	1 word	16 bits	HEX	0x1715	35910	
	Port 23 Link Up Counter	1 word	16 bits	HEX	0x1716	35911	
	Port 24 Link Up Counter	1 word	16 bits	HEX	0x1717	35912	
	Port 25 Link Up Counter	1 word	16 bits	HEX	0x1718	35913	
	Port 26 Link Up Counter	1 word	16 bits	HEX	0x1719	35914	
	Port 27 Link Up Counter	1 word	16 bits	HEX	0x171A	35915	
	Port 28 Link Up Counter	1 word	16 bits	HEX	0x171B	35916	
	Port 29 Link Up Counter	1 word	16 bits	HEX	0x171C	35917	
	Port 30 Link Up Counter	1 word	16 bits	HEX	0x171D	35918	
	Port 31 Link Up Counter	1 word	16 bits	HEX	0x171E	35919	
	Port 32 Link Up Counter	1 word	16 bits	HEX	0x171F	35920	
	PoE Voltage	1 word	16 bits	HEX	0x1800 ~ 0x181F	36145 ~ 36176	PoE Voltage (V) Ex: poe voltage = 5 Received MOD-BUS response: 0x0005
	Port 1 PoE Voltage	1 word	16 bits	HEX	0x1800	36145	
	Port 2 PoE Voltage	1 word	16 bits	HEX	0x1801	36146	
	Port 3 PoE Voltage	1 word	16 bits	HEX	0x1802	36147	
	Port 4 PoE Voltage	1 word	16 bits	HEX	0x1803	36148	

Catalog	Name	Data Type		Interpretation	Address Offset (Hex)	Address 3X	Description
Port Info	Port 5 PoE Voltage	1 word	16 bits	HEX	0x1804	36149	
	Port 6 PoE Voltage	1 word	16 bits	HEX	0x1805	36150	
	Port 7 PoE Voltage	1 word	16 bits	HEX	0x1806	36151	
	Port 8 PoE Voltage	1 word	16 bits	HEX	0x1807	36152	
	Port 9 PoE Voltage	1 word	16 bits	HEX	0x1808	36153	
	Port 10 PoE Voltage	1 word	16 bits	HEX	0x1809	36154	
	Port 11 PoE Voltage	1 word	16 bits	HEX	0x180A	36155	
	Port 12 PoE Voltage	1 word	16 bits	HEX	0x180B	36156	
	Port 13 PoE Voltage	1 word	16 bits	HEX	0x180C	36157	
	Port 14 PoE Voltage	1 word	16 bits	HEX	0x180D	36158	
	Port 15 PoE Voltage	1 word	16 bits	HEX	0x180E	36159	
	Port 16 PoE Voltage	1 word	16 bits	HEX	0x180F	36160	
	Port 17 PoE Voltage	1 word	16 bits	HEX	0x1810	36161	
	Port 18 PoE Voltage	1 word	16 bits	HEX	0x1811	36162	
	Port 19 PoE Voltage	1 word	16 bits	HEX	0x1812	36163	
	Port 20 PoE Voltage	1 word	16 bits	HEX	0x1813	36164	
	Port 21 PoE Voltage	1 word	16 bits	HEX	0x1814	36165	
	Port 22 PoE Voltage	1 word	16 bits	HEX	0x1815	36166	
	Port 23 PoE Voltage	1 word	16 bits	HEX	0x1816	36167	
	Port 24 PoE Voltage	1 word	16 bits	HEX	0x1817	36168	
	Port 25 PoE Voltage	1 word	16 bits	HEX	0x1818	36169	
	Port 26 PoE Voltage	1 word	16 bits	HEX	0x1819	36170	
	Port 27 PoE Voltage	1 word	16 bits	HEX	0x181A	36171	
	Port 28 PoE Voltage	1 word	16 bits	HEX	0x181B	36172	
	Port 29 PoE Voltage	1 word	16 bits	HEX	0x181C	36173	
	Port 30 PoE Voltage	1 word	16 bits	HEX	0x181D	36174	
	Port 31 PoE Voltage	1 word	16 bits	HEX	0x181E	36175	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
Port Info	Port 32 PoE Voltage	1 word	16 bits	HEX	0x181F	36176	
	PoE Current	1 word	16 bits	HEX	0x1820 ~ 0x183F	36177 ~ 36208	PoE Current (mA) Ex: poe current = 13 Received MOD-BUS response: 0x000D
	Port 1 PoE Current	1 word	16 bits	HEX	0x1820	36177	
	Port 2 PoE Current	1 word	16 bits	HEX	0x1821	36178	
	Port 3 PoE Current	1 word	16 bits	HEX	0x1822	36179	
	Port 4 PoE Current	1 word	16 bits	HEX	0x1823	36180	
	Port 5 PoE Current	1 word	16 bits	HEX	0x1824	36181	
	Port 6 PoE Current	1 word	16 bits	HEX	0x1825	36182	
	Port 7 PoE Current	1 word	16 bits	HEX	0x1826	36183	
	Port 8 PoE Current	1 word	16 bits	HEX	0x1827	36184	
	Port 9 PoE Current	1 word	16 bits	HEX	0x1828	36185	
	Port 10 PoE Current	1 word	16 bits	HEX	0x1829	36186	
	Port 11 PoE Current	1 word	16 bits	HEX	0x182A	36187	
	Port 12 PoE Current	1 word	16 bits	HEX	0x182B	36188	
	Port 13 PoE Current	1 word	16 bits	HEX	0x182C	36189	
	Port 14 PoE Current	1 word	16 bits	HEX	0x182D	36190	
	Port 15 PoE Current	1 word	16 bits	HEX	0x182E	36191	
	Port 16 PoE Current	1 word	16 bits	HEX	0x182F	36192	
	Port 17 PoE Current	1 word	16 bits	HEX	0x1830	36193	
	Port 18 PoE Current	1 word	16 bits	HEX	0x1831	36194	
	Port 19 PoE Current	1 word	16 bits	HEX	0x1832	36195	
	Port 20 PoE Current	1 word	16 bits	HEX	0x1833	36196	
	Port 21 PoE Current	1 word	16 bits	HEX	0x1834	36197	
	Port 22 PoE Current	1 word	16 bits	HEX	0x1835	36198	
	Port 23 PoE Current	1 word	16 bits	HEX	0x1836	36199	
	Port 24 PoE Current	1 word	16 bits	HEX	0x1837	36200	

Catalog	Name	Data Type		Interpretation	Address Offset (Hex)	Address 3X	Description
Port Info	Port 25 PoE Current	1 word	16 bits	HEX	0x1838	36201	
	Port 26 PoE Current	1 word	16 bits	HEX	0x1839	36202	
	Port 27 PoE Current	1 word	16 bits	HEX	0x183A	36203	
	Port 28 PoE Current	1 word	16 bits	HEX	0x183B	36204	
	Port 29 PoE Current	1 word	16 bits	HEX	0x183C	36205	
	Port 30 PoE Current	1 word	16 bits	HEX	0x183D	36206	
	Port 31 PoE Current	1 word	16 bits	HEX	0x183E	36207	
	Port 32 PoE Current	1 word	16 bits	HEX	0x183F	36208	
	PoE Power	1 word	16 bits	HEX	0x1840 ~ 0x185F	36209 ~ 36240	PoE Power (W) Ex: poe power = 10 Received MOD-BUS response: 0x000A
	Port 1 PoE Power	1 word	16 bits	HEX	0x1840	36209	
	Port 2 PoE Power	1 word	16 bits	HEX	0x1841	36210	
	Port 3 PoE Power	1 word	16 bits	HEX	0x1842	36211	
	Port 4 PoE Power	1 word	16 bits	HEX	0x1843	36212	
	Port 5 PoE Power	1 word	16 bits	HEX	0x1844	36213	
	Port 6 PoE Power	1 word	16 bits	HEX	0x1845	36214	
	Port 7 PoE Power	1 word	16 bits	HEX	0x1846	36215	
	Port 8 PoE Power	1 word	16 bits	HEX	0x1847	36216	
	Port 9 PoE Power	1 word	16 bits	HEX	0x1848	36217	
	Port 10 PoE Power	1 word	16 bits	HEX	0x1849	36218	
	Port 11 PoE Power	1 word	16 bits	HEX	0x184A	36219	
	Port 12 PoE Power	1 word	16 bits	HEX	0x184B	36220	
	Port 13 PoE Power	1 word	16 bits	HEX	0x184C	36221	
	Port 14 PoE Power	1 word	16 bits	HEX	0x184D	36222	
	Port 15 PoE Power	1 word	16 bits	HEX	0x184E	36223	
	Port 16 PoE Power	1 word	16 bits	HEX	0x184F	36224	
	Port 17 PoE Power	1 word	16 bits	HEX	0x1850	36225	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
Port Info	Port 18 PoE Power	1 word	16 bits	HEX	0x1851	36226	
	Port 19 PoE Power	1 word	16 bits	HEX	0x1852	36227	
	Port 20 PoE Power	1 word	16 bits	HEX	0x1853	36228	
	Port 21 PoE Power	1 word	16 bits	HEX	0x1854	36229	
	Port 22 PoE Power	1 word	16 bits	HEX	0x1855	36230	
	Port 23 PoE Power	1 word	16 bits	HEX	0x1856	36231	
	Port 24 PoE Power	1 word	16 bits	HEX	0x1857	36232	
	Port 25 PoE Power	1 word	16 bits	HEX	0x1858	36233	
	Port 26 PoE Power	1 word	16 bits	HEX	0x1859	36234	
	Port 27 PoE Power	1 word	16 bits	HEX	0x185A	36235	
	Port 28 PoE Power	1 word	16 bits	HEX	0x185B	36236	
	Port 29 PoE Power	1 word	16 bits	HEX	0x185C	36237	
	Port 30 PoE Power	1 word	16 bits	HEX	0x185D	36238	
	Port 31 PoE Power	1 word	16 bits	HEX	0x185E	36239	
	Port 32 PoE Power	1 word	16 bits	HEX	0x185F	36240	
	PoE Temperature	1 word	16 bits	HEX	0x1860 ~ 0x187F3	6241 ~ 36272	PoE Temperature (C) Ex: poe temperature = 32 Received MOD-BUS response: 0x0020
	Port 1 PoE Temperature	1 word	16 bits	HEX	0x1860	36241	
	Port 2 PoE Temperature	1 word	16 bits	HEX	0x1861	36242	
	Port 3 PoE Temperature	1 word	16 bits	HEX	0x1862	36243	
	Port 4 PoE Temperature	1 word	16 bits	HEX	0x1863	36244	
	Port 5 PoE Temperature	1 word	16 bits	HEX	0x1864	36245	
	Port 6 PoE Temperature	1 word	16 bits	HEX	0x1865	36246	
	Port 7 PoE Temperature	1 word	16 bits	HEX	0x1866	36247	
	Port 8 PoE Temperature	1 word	16 bits	HEX	0x1867	36248	
	Port 9 PoE Temperature	1 word	16 bits	HEX	0x1868	36249	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description		
Port Info	Port 10 PoE Temperature	1 word	16 bits	HEX	0x1869	36250		
	Port 11 PoE Temperature	1 word	16 bits	HEX	0x186A	36251		
	Port 12 PoE Temperature	1 word	16 bits	HEX	0x186B	36252		
	Port 13 PoE Temperature	1 word	16 bits	HEX	0x186C	36253		
	Port 14 PoE Temperature	1 word	16 bits	HEX	0x186D	36254		
	Port 15 PoE Temperature	1 word	16 bits	HEX	0x186E	36255		
	Port 16 PoE Temperature	1 word	16 bits	HEX	0x186F	36256		
	Port 17 PoE Temperature	1 word	16 bits	HEX	0x1870	36257		
	Port 18 PoE Temperature	1 word	16 bits	HEX	0x1871	36258		
	Port 19 PoE Temperature	1 word	16 bits	HEX	0x1872	36259		
	Port 20 PoE Temperature	1 word	16 bits	HEX	0x1873	36260		
	Port 21 PoE Temperature	1 word	16 bits	HEX	0x1874	36261		
	Port 22 PoE Temperature	1 word	16 bits	HEX	0x1875	36262		
	Port 23 PoE Temperature	1 word	16 bits	HEX	0x1876	36263		
	Port 24 PoE Temperature	1 word	16 bits	HEX	0x1877	36264		
	Port 25 PoE Temperature	1 word	16 bits	HEX	0x1878	36265		
	Port 26 PoE Temperature	1 word	16 bits	HEX	0x1879	36266		
	Port 27 PoE Temperature	1 word	16 bits	HEX	0x187A	36267		
	Port 28 PoE Temperature	1 word	16 bits	HEX	0x187B	36268		
	Port 29 PoE Temperature	1 word	16 bits	HEX	0x187C	36269		
	Port 30 PoE Temperature	1 word	16 bits	HEX	0x187D	36270		
	Port 31 PoE Temperature	1 word	16 bits	HEX	0x187E	36271		
	Port 32 PoE Temperature	1 word	16 bits	HEX	0x187F	36272		
		Tx Packets Counter	4 words	16 bits	HEX	0x2000 ~ 0x207C	38193 ~ 38317	Tx Packets Ex: port 1 Tx Packet Amount = 11223344 Received MOD-BUS response: 0xAB4130 Word 0 = 0x0000 Word 1 = 0x0000 Word 2 = 0x00AB Word 3 = 0x4130

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
Packet Info	Port 1 Tx Packets	4 words	16 bits	HEX	0x2000	
	Port 2 Tx Packets	4 words	16 bits	HEX	0x2010	
	Port 3 Tx Packets	4 words	16 bits	HEX	0x211	
	Port 4 Tx Packets	4 words	16 bits	HEX	0x2012	
	Port 5 Tx Packets	4 words	16 bits	HEX	0x2013	
	Port 6 Tx Packets	4 words	16 bits	HEX	0x2014	
	Port 7 Tx Packets	4 words	16 bits	HEX	0x2015	
	Port 8 Tx Packets	4 words	16 bits	HEX	0x2016	
	Port 9 Tx Packets	4 words	16 bits	HEX	0x2017	
	Port 10 Tx Packets	4 words	16 bits	HEX	0x2018	
	Port 11 Tx Packets	4 words	16 bits	HEX	0x2019	
	Port 12 Tx Packets	4 words	16 bits	HEX	0x201A	
	Port 13 Tx Packets	4 words	16 bits	HEX	0x201B	
	Port 14 Tx Packets	4 words	16 bits	HEX	0x201C	
	Port 15 Tx Packets	4 words	16 bits	HEX	0x201D	
	Port 16 Tx Packets	4 words	16 bits	HEX	0x201E	
	Port 17 Tx Packets	4 words	16 bits	HEX	0x201F	
	Port 18 Tx Packets	4 words	16 bits	HEX	0x2020	
	Port 19 Tx Packets	4 words	16 bits	HEX	0x2021	
	Port 20 Tx Packets	4 words	16 bits	HEX	0x2022	
	Port 21 Tx Packets	4 words	16 bits	HEX	0x2023	
	Port 22 Tx Packets	4 words	16 bits	HEX	0x2024	
	Port 23 Tx Packets	4 words	16 bits	HEX	0x2025	
	Port 24 Tx Packets	4 words	16 bits	HEX	0x205C	38285
	Port 25 Tx Packets	4 words	16 bits	HEX	0x2060	38289
	Port 26 Tx Packets	4 words	16 bits	HEX	0x2064	38293
	Port 27 Tx Packets	4 words	16 bits	HEX	0x2068	38297

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
	Port 28 Tx Packets	4 words	16 bits	HEX	0x206C	38301
	Port 29 Tx Packets	4 words	16 bits	HEX	0x2070	38305
	Port 30 Tx Packets	4 words	16 bits	HEX	0x2074	38309
	Port 31 Tx Packets	4 words	16 bits	HEX	0x2078	38313
	Port 32 Tx Packets	4 words	16 bits	HEX	0x207C	38317
	Rx Packets Counter	4 words	16 bits	HEX	0x2100 ~ 0x217C	38449 ~ 38573 Rx Packets Ex: port 1 Rx Packet Amount = 11223344 Received MOD-BUS response: 0xAB4130 Word 0 = 0x0000 Word 1 = 0x0000 Word 2 = 0x00AB Word 3 = 0x4130
	Port 1 Rx Packets	4 words	16 bits	HEX	0x2100	38449
	Port 2 Rx Packets	4 words	16 bits	HEX	0x2104	38453
	Port 3 Rx Packets	4 words	16 bits	HEX	0x2108	38457
	Port 4 Rx Packets	4 words	16 bits	HEX	0x210C	38461
	Port 5 Rx Packets	4 words	16 bits	HEX	0x2110	38465
	Port 6 Rx Packets	4 words	16 bits	HEX	0x2114	38469
	Port 7 Rx Packets	4 words	16 bits	HEX	0x2118	38473
	Port 8 Rx Packets	4 words	16 bits	HEX	0x211C	38477
	Port 9 Rx Packets	4 words	16 bits	HEX	0x2120	38481
	Port 10 Rx Packets	4 words	16 bits	HEX	0x2124	38485
	Port 11 Rx Packets	4 words	16 bits	HEX	0x2128	38489
	Port 12 Rx Packets	4 words	16 bits	HEX	0x212C	38493
	Port 13 Rx Packets	4 words	16 bits	HEX	0x2130	38497
	Port 14 Rx Packets	4 words	16 bits	HEX	0x2134	38501
	Port 15 Rx Packets	4 words	16 bits	HEX	0x2138	38505
	Port 16 Rx Packets	4 words	16 bits	HEX	0x213C	38509
	Port 17 Rx Packets	4 words	16 bits	HEX	0x2140	38513
	Port 18 Rx Packets	4 words	16 bits	HEX	0x2144	38517

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
Packet Info	Port 19 Rx Packets	4 words	16 bits	HEX	0x2148	38521	
	Port 20 Rx Packets	4 words	16 bits	HEX	0x214C	38525	
	Port 21 Rx Packets	4 words	16 bits	HEX	0x2150	38529	
	Port 22 Rx Packets	4 words	16 bits	HEX	0x2154	38533	
	Port 23 Rx Packets	4 words	16 bits	HEX	0x2158	38537	
	Port 24 Rx Packets	4 words	16 bits	HEX	0x215C	38541	
	Port 25 Rx Packets	4 words	16 bits	HEX	0x2160	38545	
	Port 26 Rx Packets	4 words	16 bits	HEX	0x2164	38549	
	Port 27 Rx Packets	4 words	16 bits	HEX	0x2168	38553	
	Port 28 Rx Packets	4 words	16 bits	HEX	0x216C	38557	
	Port 29 Rx Packets	4 words	16 bits	HEX	0x2170	38561	
	Port 30 Rx Packets	4 words	16 bits	HEX	0x2174	38565	
	Port 31 Rx Packets	4 words	16 bits	HEX	0x2178	38569	
	Port 32 Rx Packets	4 words	16 bits	HEX	0x217C	38573	
	Tx Error Packets Counter	2 words	32 bits	HEX	0x2200 ~ 0x223E	38705 ~ 38767	Tx Error Packets Ex: port 1 Tx Packet Amount = 11223344 Received MOD-BUS response: 0xAB4130 Word 0 = 0x00AB Word 1 = 0x4130
	Port 1 Tx Error Packets	2 words	32 bits	HEX	0x2200	38705	
Port 2 Tx Error Packets	2 words	32 bits	HEX	0x2202	38707		
Port 3 Tx Error Packets	2 words	32 bits	HEX	0x2204	38709		
Port 4 Tx Error Packets	2 words	32 bits	HEX	0x2206	38711		
Port 5 Tx Error Packets	2 words	32 bits	HEX	0x2208	38713		
Port 6 Tx Error Packets	2 words	32 bits	HEX	0x220A	38715		
Port 7 Tx Error Packets	2 words	32 bits	HEX	0x220C	38717		
Port 8 Tx Error Packets	2 words	32 bits	HEX	0x220E	38719		
Port 9 Tx Error Packets	2 words	32 bits	HEX	0x2210	38721		
Port 10 Tx Error Packets	2 words	32 bits	HEX	0x2212	38723		

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description	
Packet Info	Port 11 Tx Error Packets	2 words	32 bits	HEX	0x2214	38725	
	Port 12 Tx Error Packets	2 words	32 bits	HEX	0x2216	38727	
	Port 13 Tx Error Packets	2 words	32 bits	HEX	0x2218	38729	
	Port 14 Tx Error Packets	2 words	32 bits	HEX	0x221A	38731	
	Port 15 Tx Error Packets	2 words	32 bits	HEX	0x221C	38733	
	Port 16 Tx Error Packets	2 words	32 bits	HEX	0x221E	38735	
	Port 17 Tx Error Packets	2 words	32 bits	HEX	0x2220	38737	
	Port 18 Tx Error Packets	2 words	32 bits	HEX	0x2222	38739	
	Port 19 Tx Error Packets	2 words	32 bits	HEX	0x2224	38741	
	Port 20 Tx Error Packets	2 words	32 bits	HEX	0x2226	38743	
	Port 21 Tx Error Packets	2 words	32 bits	HEX	0x2228	38745	
	Port 22 Tx Error Packets	2 words	32 bits	HEX	0x222A	38747	
	Port 23 Tx Error Packets	2 words	32 bits	HEX	0x222C	38749	
	Port 24 Tx Error Packets	2 words	32 bits	HEX	0x222E	38751	
	Port 25 Tx Error Packets	2 words	32 bits	HEX	0x2230	38753	
	Port 26 Tx Error Packets	2 words	32 bits	HEX	0x2232	38755	
	Port 27 Tx Error Packets	2 words	32 bits	HEX	0x2234	38757	
	Port 28 Tx Error Packets	2 words	32 bits	HEX	0x2236	38759	
	Port 29 Tx Error Packets	2 words	32 bits	HEX	0x2238	38761	
	Port 30 Tx Error Packets	2 words	32 bits	HEX	0x223A	38763	
	Port 31 Tx Error Packets	2 words	32 bits	HEX	0x223C	38765	
	Port 33 Tx Error Packets	2 words	32 bits	HEX	0x223E	38767	
	Rx Error Packets Counter	2 words	32 bits	HEX	0x2300 ~ 0x233E	38961 ~39023	Rx Error Packets Ex: port 1 Rx Packet Amount = 11223344 Received MOD-BUS response: 0xAB4130 Word 0 = 0x00AB Word 1 = 0x4130
	Port 1 Rx Error Packets	2 words	32 bits	HEX	0x2300	38961	
	Port 2 Rx Error Packets	2 words	32 bits	HEX	0x2302	38963	

Catalog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
Packet Info	Port 3 Rx Error Packets	2 words	32 bits	HEX	0x2304	38965
	Port 4 Rx Error Packets	2 words	32 bits	HEX	0x2306	38967
	Port 5 Rx Error Packets	2 words	32 bits	HEX	0x2308	38969
	Port 6 Rx Error Packets	2 words	32 bits	HEX	0x230A	38971
	Port 7 Rx Error Packets	2 words	32 bits	HEX	0x230C	38973
	Port 8 Rx Error Packets	2 words	32 bits	HEX	0x230E	38975
	Port 9 Rx Error Packets	2 words	32 bits	HEX	0x2310	38977
	Port 10 Rx Error Packets	2 words	32 bits	HEX	0x2312	38979
	Port 11 Rx Error Packets	2 words	32 bits	HEX	0x2314	38981
	Port 12 Rx Error Packets	2 words	32 bits	HEX	0x2316	38983
	Port 13 Rx Error Packets	2 words	32 bits	HEX	0x2318	38985
	Port 14 Rx Error Packets	2 words	32 bits	HEX	0x231A	38987
	Port 15 Rx Error Packets	2 words	32 bits	HEX	0x231C	38989
	Port 16 Rx Error Packets	2 words	32 bits	HEX	0x231E	38991
	Port 17 Rx Error Packets	2 words	32 bits	HEX	0x2320	38993
	Port 18 Rx Error Packets	2 words	32 bits	HEX	0x2322	38995
	Port 19 Rx Error Packets	2 words	32 bits	HEX	0x2324	38997
	Port 20 Rx Error Packets	2 words	32 bits	HEX	0x2326	38999
	Port 21 Rx Error Packets	2 words	32 bits	HEX	0x2328	39001
	Port 22 Rx Error Packets	2 words	32 bits	HEX	0x232A	39003
	Port 23 Rx Error Packets	2 words	32 bits	HEX	0x232C	39005
	Port 24 Rx Error Packets	2 words	32 bits	HEX	0x232E	39007
	Port 25 Rx Error Packets	2 words	32 bits	HEX	0x2330	39009
	Port 26 Rx Error Packets	2 words	32 bits	HEX	0x2332	39011
	Port 27 Rx Error Packets	2 words	32 bits	HEX	0x2334	39013
	Port 28 Rx Error Packets	2 words	32 bits	HEX	0x2336	39015
	Port 29 Rx Error Packets	2 words	32 bits	HEX	0x2338	39017

Catelog	Name	Data Type	Interpretation	Address Offset (Hex)	Address 3X	Description
Packet Info	Port 30 Rx Error Packets	2 words	32 bits	HEX	0x233A	39019
	Port 31 Rx Error Packets	2 words	32 bits	HEX	0x233C	39021
	Port 32 Rx Error Packets	2 words	32 bits	HEX	0x233E	39023

Chapter 4

Troubleshooting

4.1 Troubleshooting

If a fiber connection cannot be established, perform the following to make sure that the fiber transceivers on the IMC-595MPI are not over/under driving the fiber receivers:

1. Make sure the fiber wavelength on both connected devices match (i.e. both are 1310 nm single-mode fiber).
2. Make sure the twisted-pair port speed on the IMC-595MPI matches that of the end devices connected to the IMC-595MPI. Configure the IMC-595MPI and its link partner to Auto Negotiation or, if using Force mode, make sure speed and duplex match.

4.2 Fiber Optic Cleaning Guidelines

Fiber Optic transmitters and receivers are extremely susceptible to contamination by particles of dirt or dust, which can obstruct the optic path and cause performance degradation. Good system performance requires clean optics and connector ferrules.

1. Use fiber patch cords (or connectors, if you terminate your own fiber) only from a reputable supplier; low-quality components can cause many hard-to-diagnose problems in an installation.
2. Dust caps are installed at the factory to ensure factory-clean optical devices. These protective caps should not be removed until the moment of connecting the fiber cable to the device. Should it be necessary to disconnect the fiber device, reinstall the protective dust caps.
3. Store spare caps in a dust-free environment such as a sealed plastic bag or box so that, when reinstalled, they do not introduce any contamination to the optics.
4. If you suspect that the optics have been contaminated, alternate between blasting with clean, dry, compressed air and flushing with methanol to remove particles of dirt.

4.3 Electrostatic Discharge Precautions

modules or standalone units, containing electronic components. Always observe the following precautions when installing or handling these kinds of products:

1. Do not remove unit from its protective packaging until ready to install.
2. Wear an ESD wrist grounding strap before handling any module or component. If a wrist strap is not available, maintain grounded contact with the system unit throughout any procedure requiring ESD protection.
3. Hold the units by the edges; do not touch the electronic components or gold connectors.
4. After removal, always place the boards on a grounded, static-free surface, ESD pad or in a proper ESD bag. Do not slide the modules or standalone units over any surface.

Warning! *Integrated circuits and fiber optic components are extremely susceptible to electrostatic discharge damage. Do not handle these components directly unless you are a qualified service technician and use tools and techniques that conform to accepted industry practices.*



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