C-Net Manager

User Manual

Connecting ePort-41 / ePort-2

Version 3.2012

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2 Introduction

C-Net Manager

C-Net Manager is an application installed on a PC, or a Compulite Vector lighting console used to remotely monitor, configure, and update devices on the lighting network, especially ePort devices and CompuPack / CompuRack dimmers.

ePorts

ePort devices are Ethernet devices for DMX routing and distribution via VC or Art-Net. Typically, ePort devices are located in dimmer rooms or on hanging positions. They are connected to the lighting network using a single Ethernet cable and allow short DMX cable runs to the end equipment.

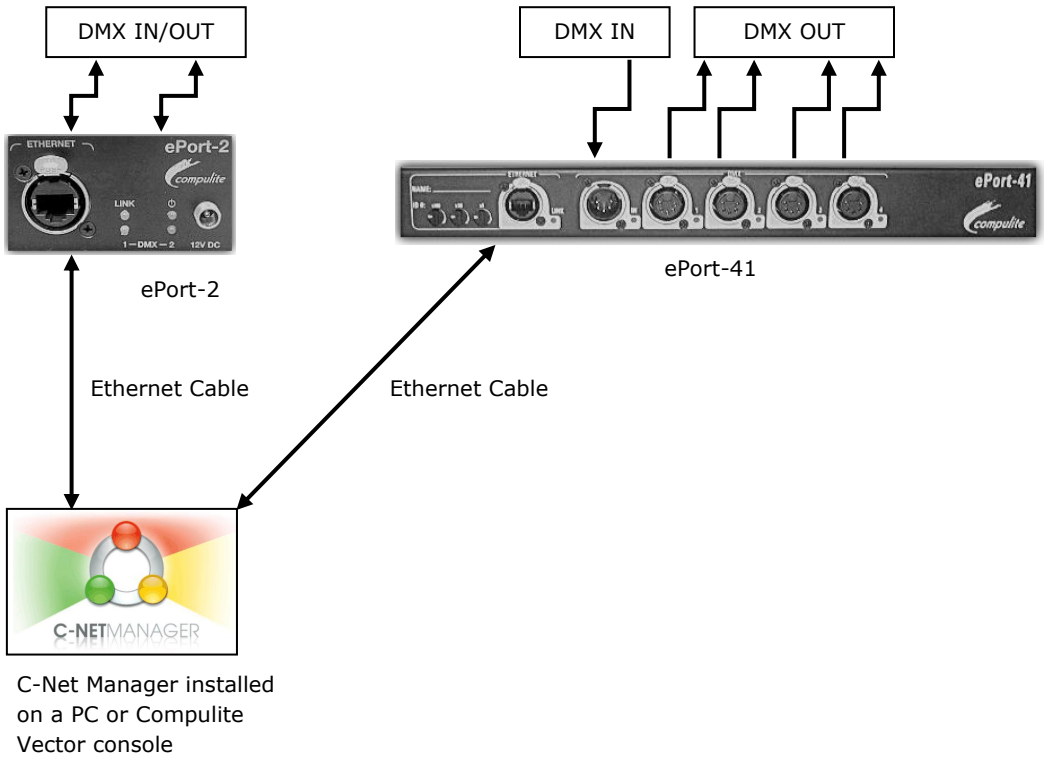


Figure 1: Basic C-Net / ePort setup

3 Getting Started

C-Net Manager needs to be installed on a PC or Vector console in order to communicate and configure an ePort device.

Installing C-Net Manager

Install C-Net Manager using the packaged CD that came with the ePort device or download C-Net Manager from the Compulite website.

To install C-Net Manager

1. Insert the packaged CD into the CD-ROM drive.

   The Install wizard starts.

2. On the Welcome screen click Next.
3. Click on the Accept agreement radio button, click Next.
4. Click Next to install C-Net Manager to the default location or select another location.

   NOTE: When installing C-Net Manager on a PC, the default location folder is *C:\Program Files\Compulite\C-Net Manager*.

   When installing C-Net Manager on a Vector console, manually select the location folder *D:\Program Files\Compulite\C-Net Manager.*

5. Once the correct location has been selected, click Next to continue.
6. Click Install.

   Install will begin.

7. Check or Uncheck Run C-Net Manager, then click Finish.

   A C-Net Manager icon  will be placed on your desktop and PC Start menu.

   Note: The icon needs to be added manually on a Vector console. See *on page 5, Adding C-Net icon to Vectors Start Menu*

Adding C-Net icon to Vectors Start Menu

The following procedure explains how to add the C-Net Manager icon to Vectors Start menu.

To add icon

1. Browse to drive D:\.
2. Locate the C-Net Manager icon.
3. Right click on the C-Net Manager icon and select Pin to Start Menu.

   The C-Net Manager icon will be added to the Start menu.

Connecting an ePort Device to C-Net

An ePort device needs to be connected via an Ethernet cable to a system with C-Net Manager installed.

Connecting an ePort device can be done the following ways:

- ePort to PC
- ePort to Vector console
- ePort to lighting network (Provided the lighting network is connected to either a PC or Vector console)

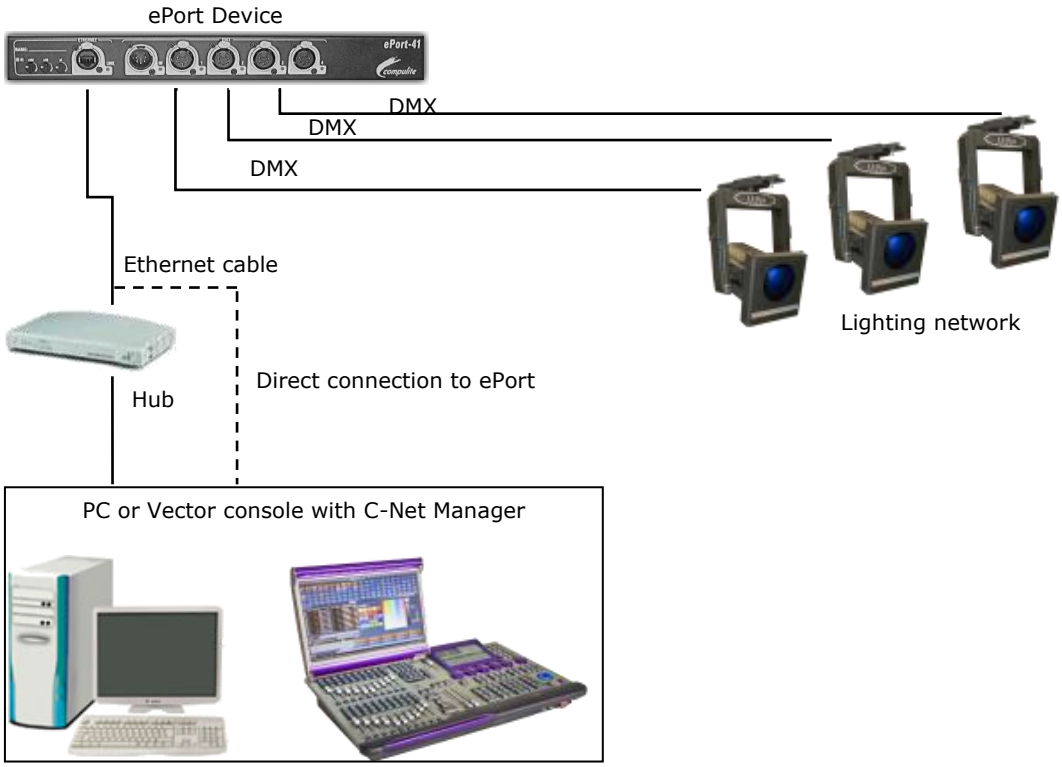


Figure 2: Example of connection possibilities using ePort-41

Connecting ePort-41

Configuration and updating of ePort properties can be performed once ePort is connected to a system with C-Net Manager. Connecting ePort-41 to C-Net is via an Ethernet data cable.

To connect ePort-41

1. Connect AC power cable to ePort-41 AC inlet, then connect power cable to power source.
2. Connect one end of an Ethernet cable to the Ethernet port on ePort-41.

3. Connect the other end of the Ethernet cable to either:

- Ethernet port on the PC
- Ethernet port on a Vector console
- Ethernet port on an Ethernet hub

Note: When using an Ethernet hub, make sure the hub is connected to a PC or Vector console with C-Net installed.

4. Turn ON ePort-41 from the Power button.

If an Ethernet link has be established, the ePort-41 Ethernet Link LED will illuminate green. (If LED is OFF check Ethernet connection)

ePort is now ready to be configured.

Connecting ePort-2

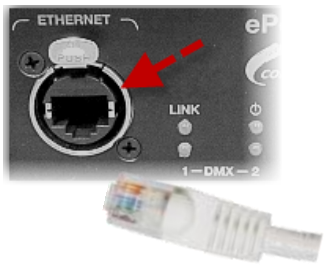
Configuration and updating of ePort properties can be performed once ePort is connected to a system with C-Net Manager. Connecting ePort-2 to C-Net is done using an Ethernet data cable.

To connect ePort-2

1. Connect AC power adaptor to ePort-2 AC inlet (Front of unit), then connect the AC adaptor to a power source.

   ePort-2 will turn ON with the power LED illuminated red. 

2. Connect one end of an Ethernet cable to the Ethernet port on ePort-2.



3. Connect the other end of the Ethernet cable to either:

- Ethernet port on the PC
- Ethernet port on a Vector console
- Ethernet port on a Ethernet hub

Note: When using an Ethernet hub, make sure the hub is connected to a PC or Vector console with C-Net installed.

If an Ethernet link has been established, the ePort-2 Ethernet Link LED will blink green. (If LED is OFF, check Ethernet connection)

ePort is now ready to be configured.

Configuring the Network for C-Net Manager

Compulite lighting consoles and ePort devices are factory configured with the correct Subnet Mask. The Subnet Mask for a PC running C-Net Manager does not need to be configured as it will communicate with the network under all conditions.

All lightning consoles in the network must have the same Subnet Mask, for example; 255.0.0.0

Starting C-Net Manager

At start-up C-Net Manager will identify any devices that are currently connected. A pop-up will appear for every device found with the text "New Device" together with the device User ID. Connected devices will be displayed in the Net Modules pane.

If a device is connected after C-Net Manager has started, the device will be identified automatically and placed in the Net Modules tree.

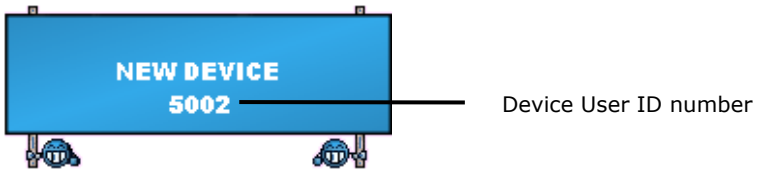


Figure 3: New Device pop-up

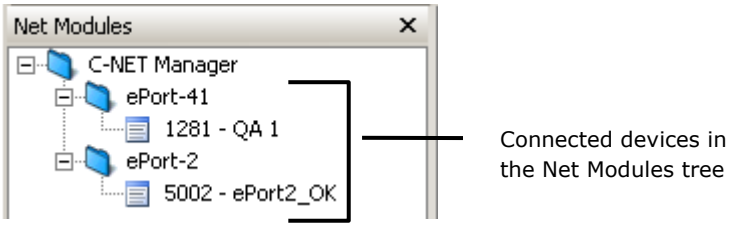


Figure 4: Net Modules pane

To start C-Net Manager

- From the Start menu click on the C-Net Manager icon.

  -OR-

- Click on the C-Net Manager icon on the Desktop.

4 Working with C-Net Manager

C-Net Manager's screen contains the Net Modules pane and Configuration screen. Device information and device image is displayed in the Configuration screen once selected from the Net Modules tree.

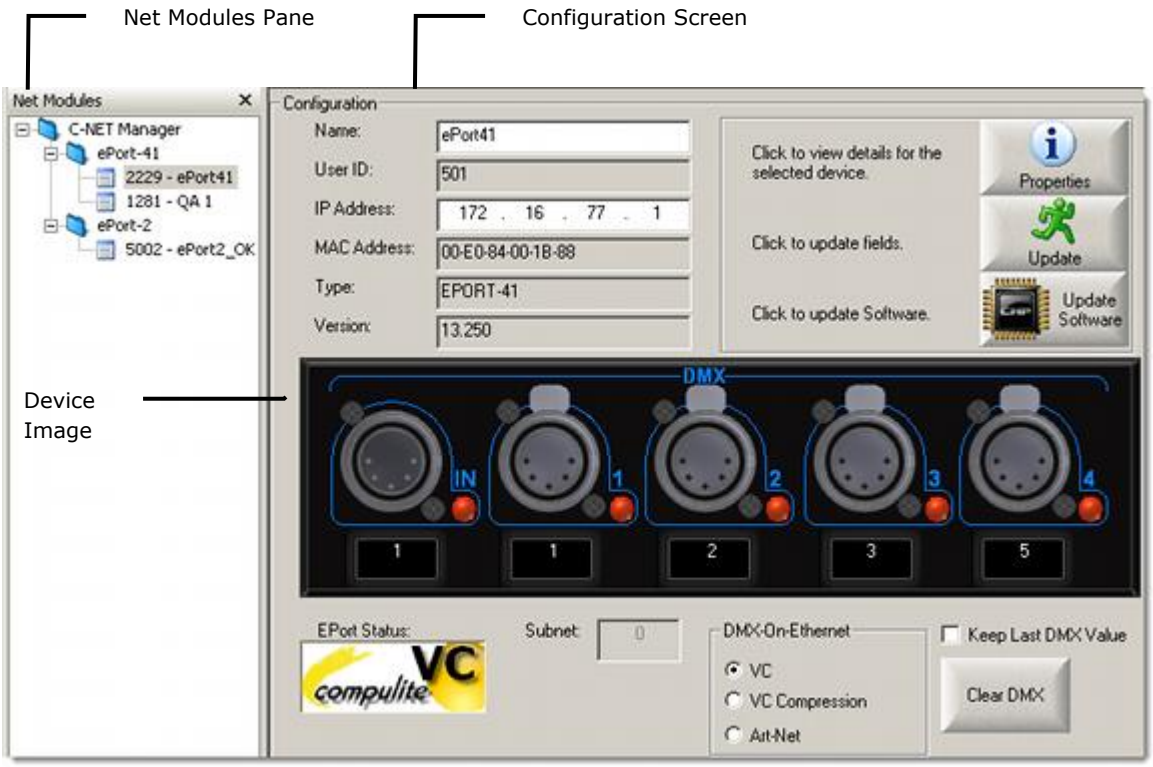


Figure 5: C-Net Manager Screens

The Net Modules Pane

Devices connected to C-Net Manager will appear in the Net Modules pane. Each device is automatically placed in a tree form according to device type. The Net Modules pane can be hidden or displayed.

A disconnected device will be marked with an ✖

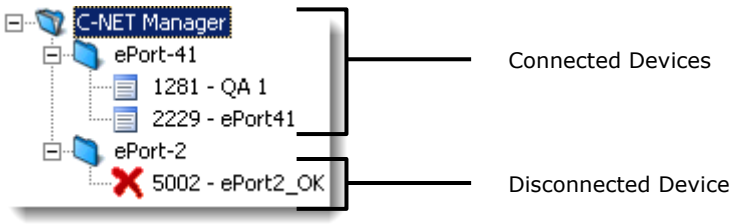
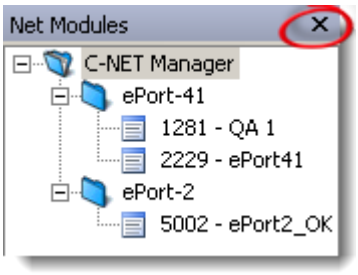


Figure 6: Net Module Pane

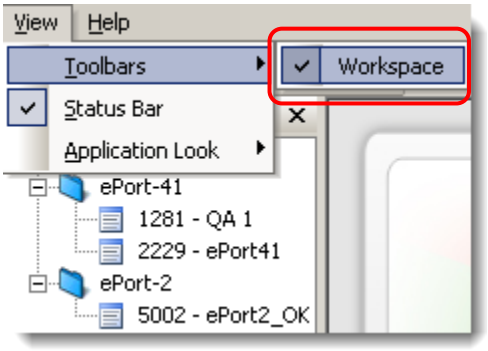
To hide Net Modules pane

- From the Net Modules pane click on the X.



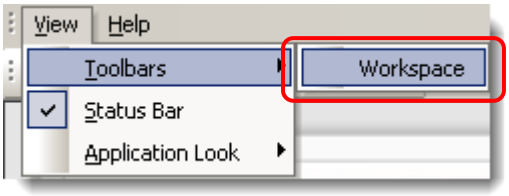
-OR-

- From the Menu tool bar, select View ► Toolbars and deselect Workspace.



To display Net Modules pane

- From the Menu toolbar, select View ► Toolbars and select Workspace.



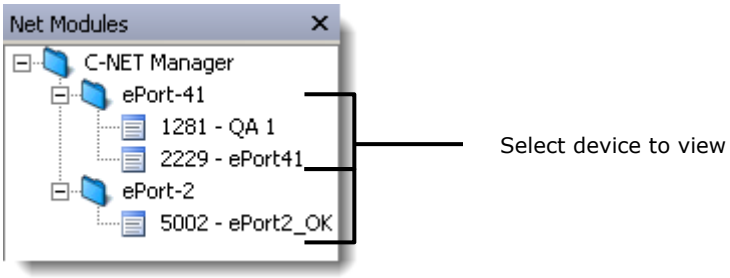
The Configuration Screen

The Configuration screen displays details of a selected device. C-Net Manager's configuration screen enables you to do the following:

- View a real-time representation of a selected device
- Edit device name
- Edit device IP address
- View properties of a selected device
- View and edit DMX input connector configuration of a selected device
- View and edit DMX output connector configuration of a selected device

To view a connected device

- From the Net Modules pane, select a device to view.



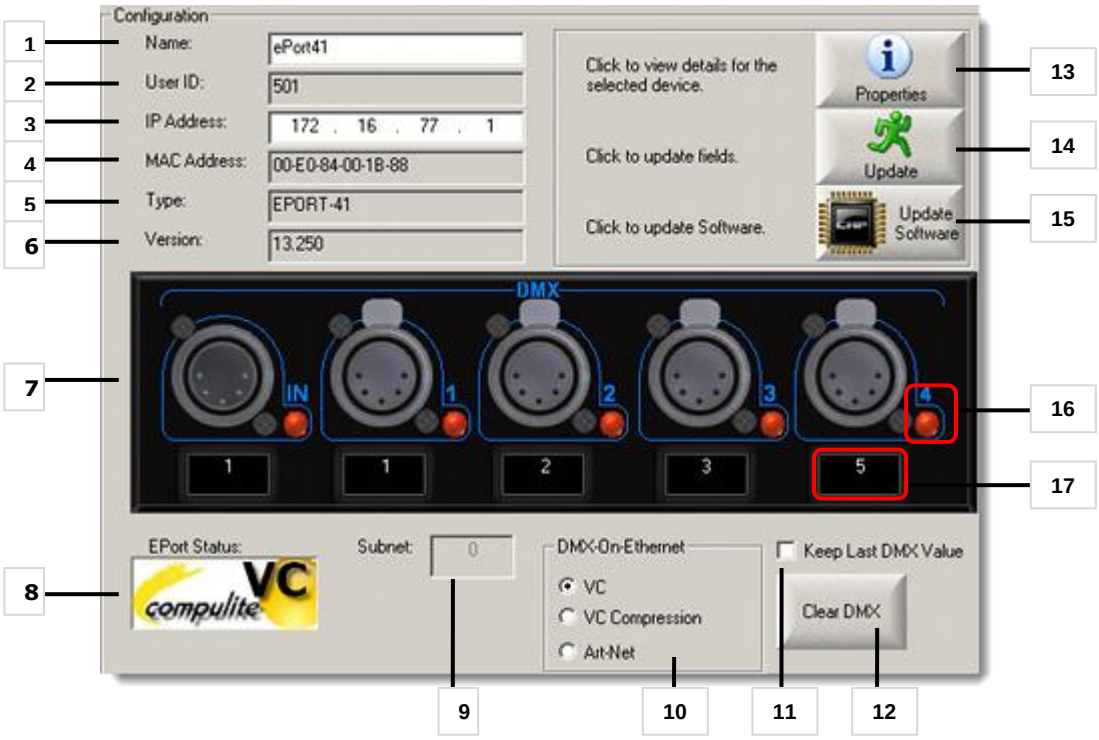
Note: Each ePort device has slightly different configuration screens.

For more information see:

- *ePort-41 Configuration Screen*
- *ePort-2 Configuration Screen*

ePort-41 Configuration Screen

The following is a description of the ePort-41 configuration screen.



No.	Description	No.	Description
1	ePort Name (Can be edited) See: *Editing device details*	**10**	DMX-On-Ethernet settings See: *DMX-On-Ethernet settings* and *Configure DMX-On-Ethernet*
2	ePort User ID (Read only)	**11**	Keep Last DMX Value: If ticked the ePort will keep on sending the last DMX value that was received, even if the signal is lost.
3	ePort IP Address (Can be edited) See: *Editing device details*	**12**	Clear DMX button
4	ePort MAC Address (Read only)	**13**	View ePort Properties button See: *Device Properties*
5	ePort Type (Read only)	**14**	Update fields button (Sends update to ePort)
6	Current Software Version (Read only)	**15**	Update Software button See: *Updating Device Software*
7	ePort image	**16**	Color coded indication LED's See: *ePort-41 LED color codes*
8	ePort Status image See: *ePort-41 Status icons*	**17**	Configurable DMX universe numbers See: *Configure DMX Universes*
9	Subnet number (Only used with Art-Net)		

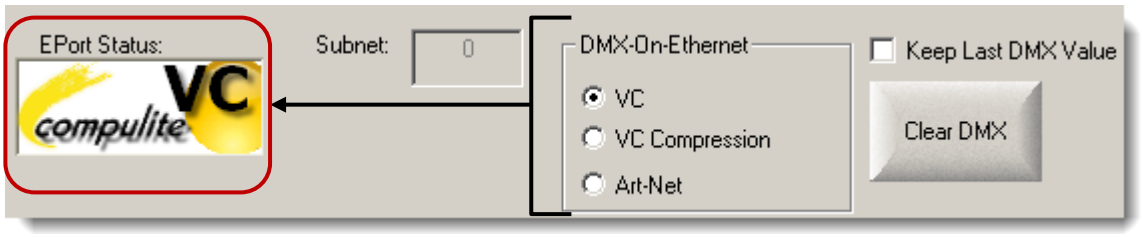
ePort-41 LED color codes

The following is a list of ePorts-41 DMX LED's and their meanings:

Color	What it means…
Purple	ePort disconnected
Red	Not receiving Ethernet transmission
Red blink	Keep last DMX values (If ticked in configuration screen)
Green	Receiving Ethernet transmission
Green blink	Merging input from more than one source

DMX-On-Ethernet settings

DMX protocol is selected from the DMX-On-Ethernet setting. Each DMX setting has a corresponding image that is displayed in the ePort Status window.



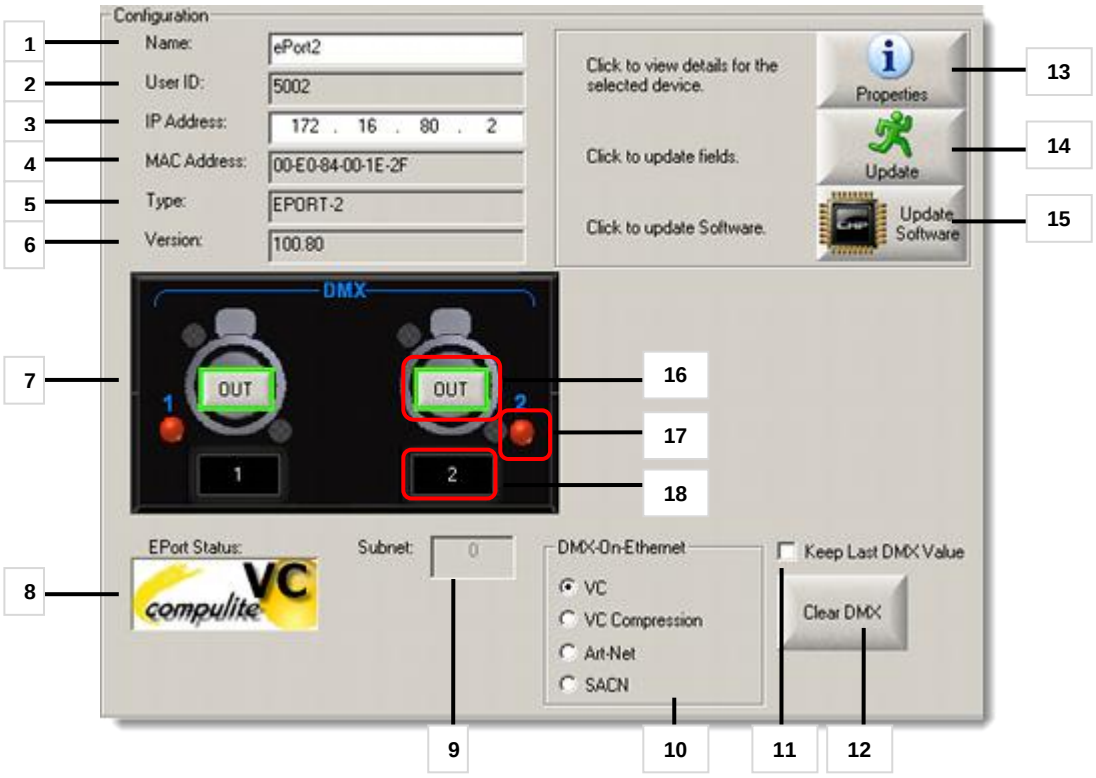
ePort-41 Status icons

The following are the Status icons for ePort-41 and their meanings:

DMX-On-Ethernet	ePort Status icon	What it means…
		Device is set to use VC protocol (Virtual Connector)
VC		Device is set to use VC protocol (Virtual Connector)
VC Compression		Device is set to use VC Compression protocol
Art-Net		Device is set to use Art-Net protocol

ePort-2 Configuration Screen

The following is a description of the ePort-2 configuration screen.



No.	Description	No.	Description
1	ePort Name (Can be edited) See: *Editing device details*	**10**	DMX-On-Ethernet settings See: *DMX-On-Ethernet settings* and *Configure DMX-On-Ethernet*
2	ePort User ID (Read only)	**11**	Keep Last DMX Value: If ticked the ePort will keep on sending the last DMX value that was received, even if the signal is lost.
3	ePort IP Address (Can be edited) See: *Editing device details*	**12**	Clear DMX button
4	ePort MAC Address (Read only)	**13**	View ePort Properties button See: *Device Properties*
5	ePort Type (Read only)	**14**	Update fields button (Sends update to ePort)
6	Current Software Version (Read only)	**15**	Update Software button See: *Updating Device Software*
7	ePort image	**16**	Configurable DMX buttons (Can be configured to DMX IN or DMX OUT) See: *Changing Ports on ePort-2*
8	ePort Status image See: *ePort-2 Status icons*	**17**	Color coded indication LED's See: *ePort-2 LED color codes*
9	Subnet number (Only used with Art-Net)	**18**	Configurable DMX universe numbers See: *Configure DMX Universes*

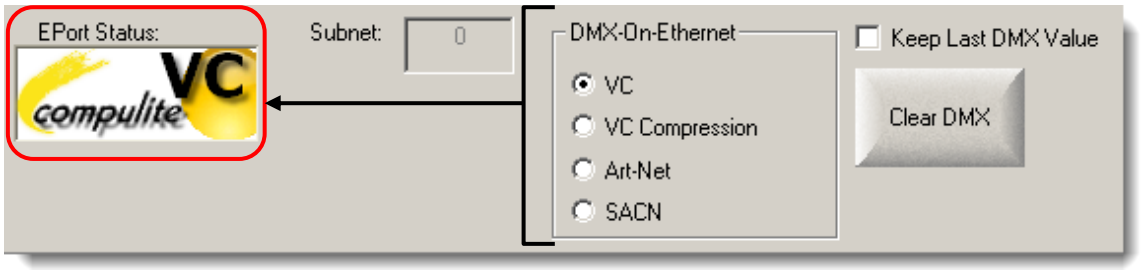
ePort-2 LED color codes

The following is a list of ePorts-2 DMX LED's and their meanings:

Color	What it means…
Purple	ePort disconnected
Red	No DMX512 received
Red blink	Keep last DMX512 values (If ticked in the Configuration screen)
Green	Receiving / transmitting DMX512
Green blink	Merging input from more than one source
Orange / Off	Software update / error

DMX-On-Ethernet settings

DMX protocol is selected from the DMX-On-Ethernet setting. Each DMX setting has a corresponding image that is displayed in the ePort Status window.



ePort-2 Status icons

The following are the Status icons for ePort-2 and there meanings:

DMX-On-Ethernet	ePort Status icon	What it means…
		ePort is disconnected
VC		Device is set to use VC protocol (Virtual Connector)
VC Compression		Device is set to use VC Compression protocol
Art-Net		Device is set to use Art-Net protocol
SACN		Device is set to use S-ACN protocol (Streaming ACN)

Editing device details

Device Name and IP Address are edited from the Configuration screen. After editing a field, click on the Update button to send the edited details to the ePort. The ePort Status image will change to Updating.

ePort Updating image

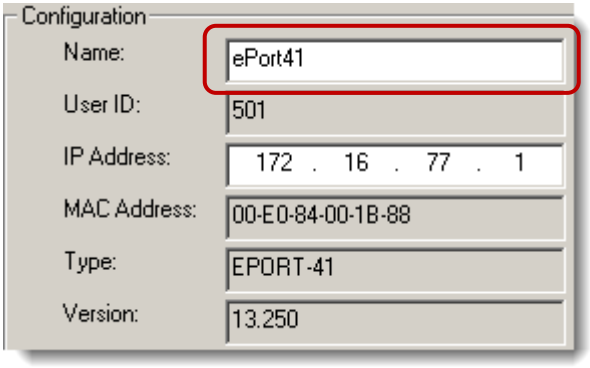
When the update is complete or has failed, a pop up message will appear in lower right hand corner of the monitor. The pop message also includes the User ID number of the device.

Update successful popup

Update failed popup

To edit device name

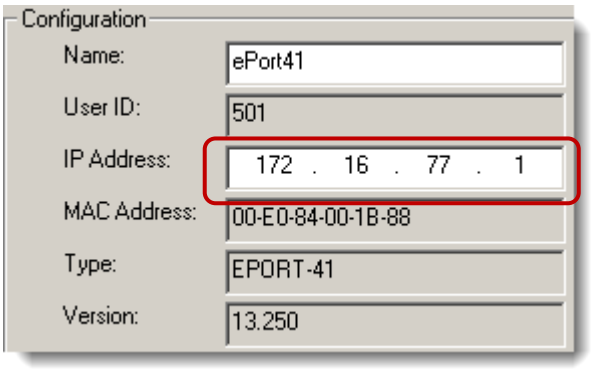
1. From the Configuration screen click in the Name field.



2. Type a new device name.
3. Click the Update button to update the device name.

To edit device IP address

1. From the Configuration screen click in the IP Address field and enter a new IP address.

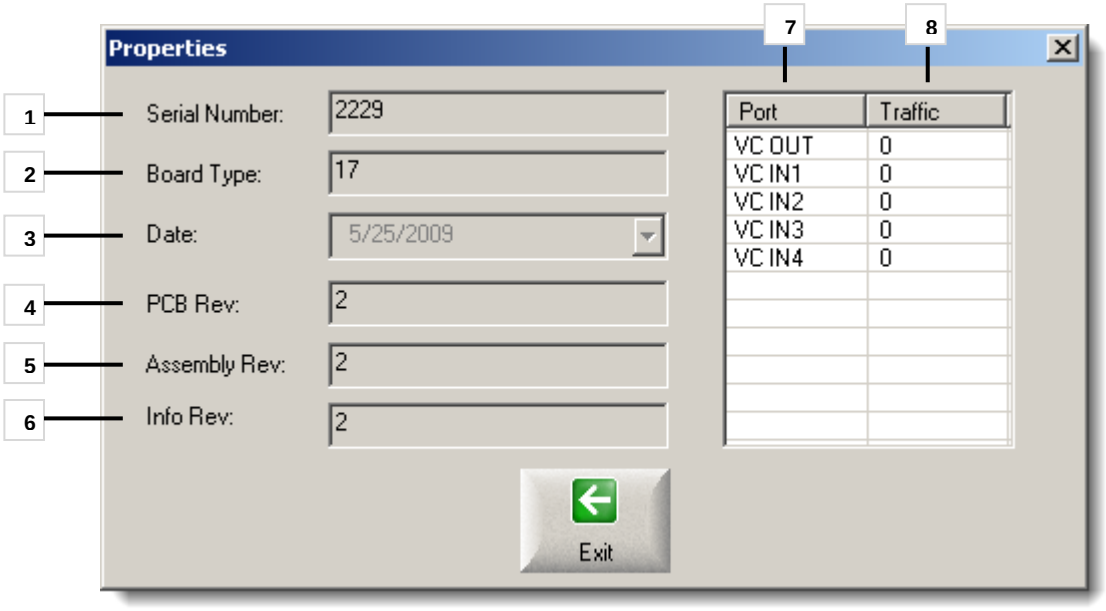


2. Click the Update button to update the device IP.

Device Properties

Device properties of a selected device can be viewed by clicking on the Properties button in the Configuration screen. Hardware and current traffic information is displayed.

The following is a description of the device Properties dialog:



No.	Fields	Description
1	Serial Number	This information shows the manufacturer's details for the hardware device. You may be asked to provide this information if you request help from Compulite support.
2	Board Type	
3	Date	
4	PCB Rev	
5	Assembly Rev	
6	Info Rev	
7	Port	This shows VC traffic per DMX universe.
8	Traffic	

To view device properties and current traffic

1. From the Configuration screen click on the Properties button.

   The Properties dialog will open.

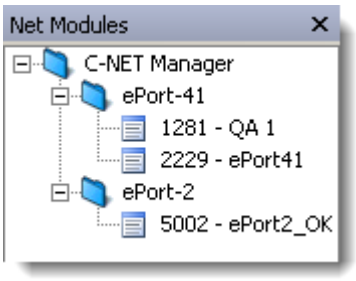
2. Click Exit to return the main screen.

Updating Device Software

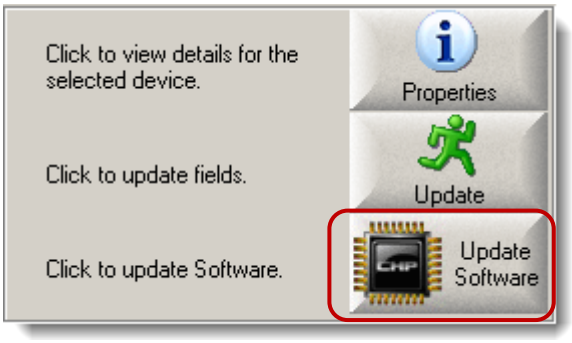
Device software of a selected device can be updated via the Update Software button in the Configuration screen.

To update device software

1. From the Net Modules pane select a device to update.

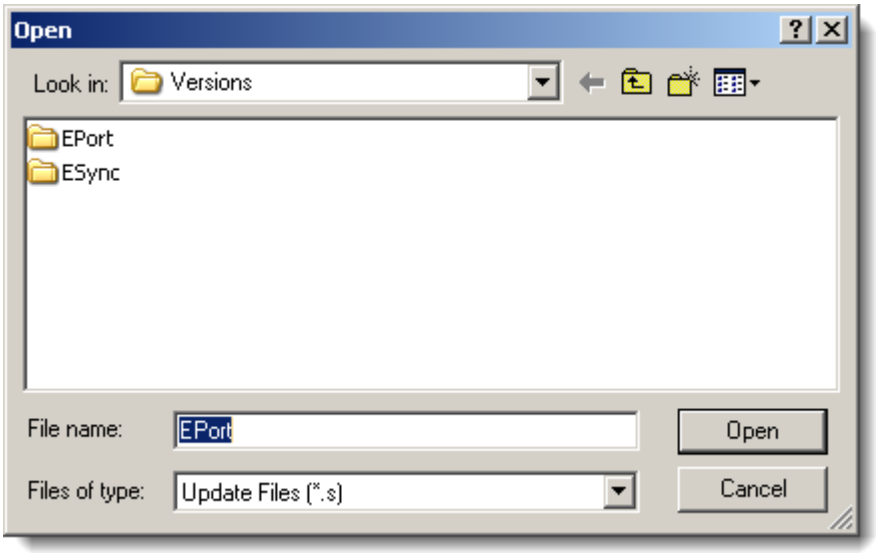


2. From the Configuration screen click on the Update Software button.



The Open dialog box will open to the default software location. You may need to browse to a different folder if your software version is not located in the default location.

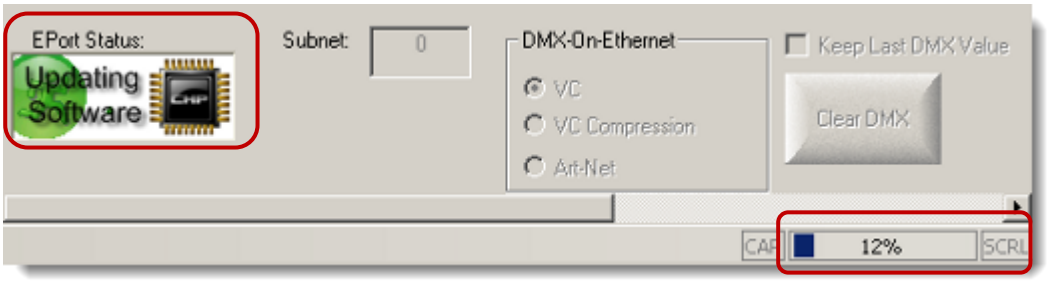
3. From the Open dialog box double click on the device folder.



4. Select the new software version.

5. Click Open.

The update will begin. A progress bar and update image will be displayed:



Note: DMX transmission is temporarily disabled during update.

6. When the update is complete, the current device status is displayed.

5 Configuring a Device

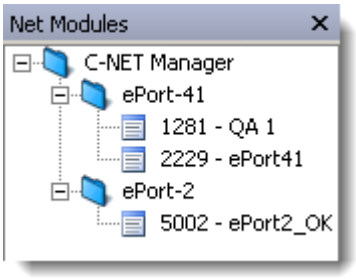
Configuring a selected device is done from the configuration screen. DMX-On-Ethernet settings can be selected and DMX universes can be configured.

Configure DMX-On-Ethernet

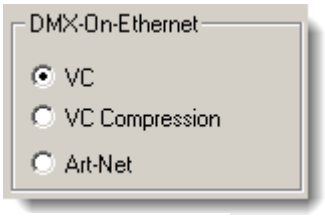
The following are the steps to configure the DMX-On-Ethernet settings for ePort-41 and ePort-2.

To set DMX-On-Ethernet

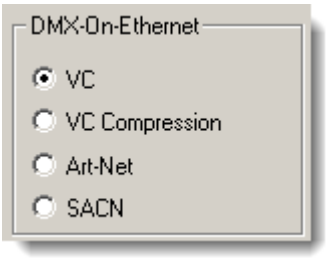
1. From the Net Modules pane select a device.



2. From the device Configuration screen select a DMX-On-Ethernet setting.



ePort -41



ePort-2

Note the following for VC and Art-Net:

VC	Art-Net
Subnet mask not applicable	Subnet mask must be configured from 0 to 15.
DMX512 output ports are 1 to 255	DMX512 output ports are 0 to 15

ATTENTION! When using Art-Net protocol the Subnet mask must be the same Subnet mask as the console. Under Art-Net protocol DMX port 1 is universe 0, port 2 is universe 1, etc.

3. Enter a Subnet Mask in the Subnet field if Art-Net is selected.

4. Click on the Update button to apply the settings to the device.

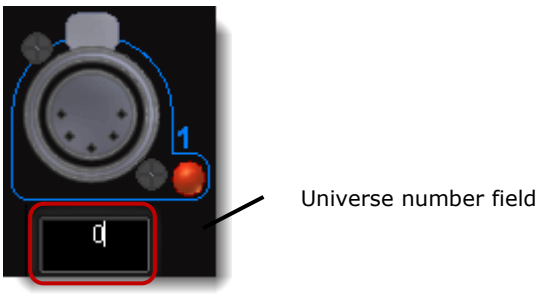
   The ePort Status image will display "Updating". A popup will appear if the update is successful or has failed.

Configure DMX Universes

The following are the steps to configure DMX universes for ePort devices.

To configure DMX universes

1. From the device Configuration screen click in the Universe number field.



2. Type in the new Universe number.
3. Use the keyboard tab key to move to the next Universe field and continue to enter in the new Universe numbers.
4. Click on the Update button to apply the settings to the device.

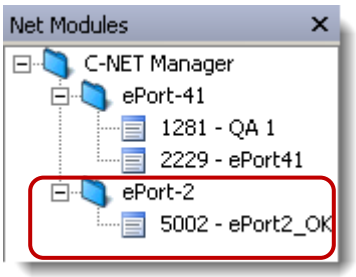
   The ePort Status image will display "Updating". A popup will appear if the update is successful or has failed.

Changing Ports on ePort-2

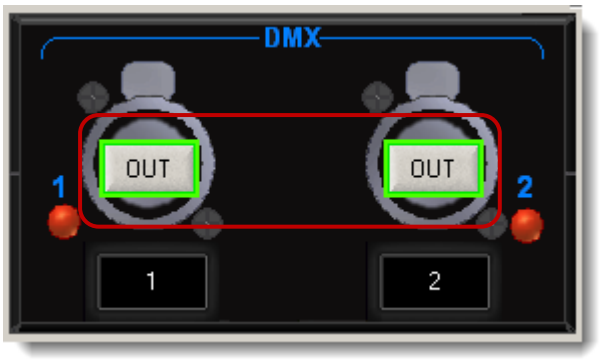
ePort-2 has 2 DMX ports that can be used as either DMX OUT or DMX IN. The ports can be changed from the ePort-2 Configuration screen in C-Net Manager.

To change ePort-2 ports IN or OUT

1. From the Net Modules pane select the ePort-2 device.



2. From the ePort-2 Configuration screen click on the IN or OUT buttons in the center of the ePort-2 image to change the port configuration.



3. Click on the Update button to apply the settings to the device.

   The ePort Status image will display "Updating". A popup will appear if the update is successful or has failed.

Configuring DMX Inputs

Vector console virtual DMX Input ports can be connected to virtual DMX Input ports on an ePort and configured via C-Net Manager.

Each Vector console has 4 virtual DMX Inputs. ePort-41 is able to handle 1 virtual DMX Input and ePort-2 is able to handle 2 virtual DMX Inputs.

When configuring DMX Inputs from a Vector console to an ePort using the VC protocol, the DMX universes must be from 252 – 255. When using the Art-Net protocol a Subnet mask of 15 must be used with a universe of 11 – 14.

Examples:

When using VC protocol with DMX virtual Input port 1, the universe on the ePort should be 252.

When using Art-Net protocol with DMX virtual Input port 1, the Subnet mask should be 15 and the universe on the ePort should be 11.

See table below for the correct universe values according to each DMX port and protocol:

Table 1: Universe Values

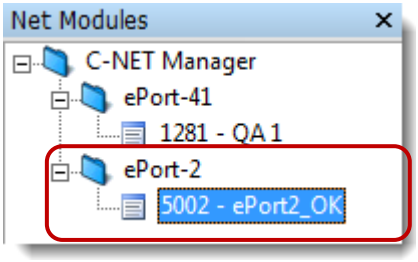
DMX IN – *Ports* ***(on Vector Console)***	**VC : *Universe*** ***(on ePort)***	**Art-Net: *Subnet – Universe*** ***(on ePort)***
Port 1	252	15 - 11
Port 2	253	15 - 12
Port 3	254	15 - 13
Port 4	255	15 - 14

Configuring DMX Inputs on an ePort-2 Device

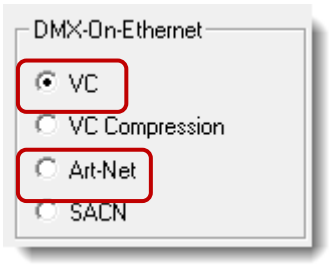
The following procedure will guide through configuring DMX Inputs on an ePort-2 device using either VC or Art-Net protocols.

To configure DMX Inputs on an ePort-2

1. From the Net Modules pane select an ePort-2 device.



2. From the device Configuration screen select a DMX-On-Ethernet protocol; VC or Art-Net:

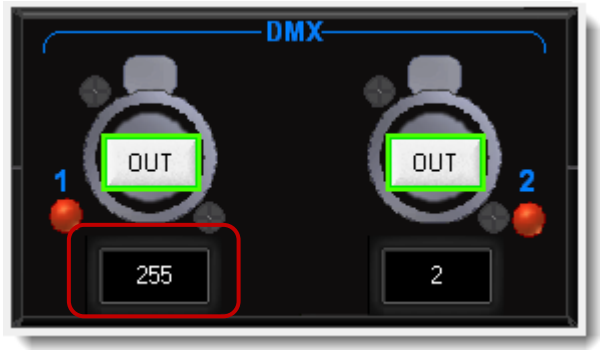


For VC Protocol follow Step 3

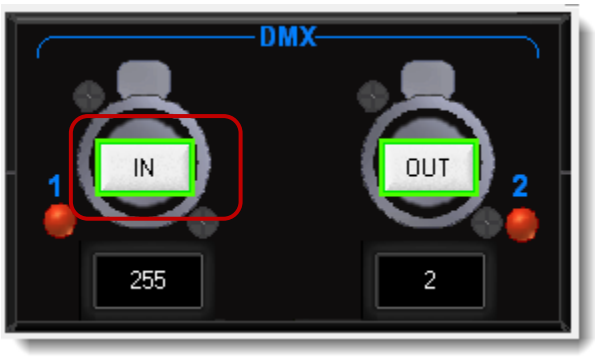
For Art-Net Protocol follow Step 4

3. For **VC** Protocol follow the procedure below:

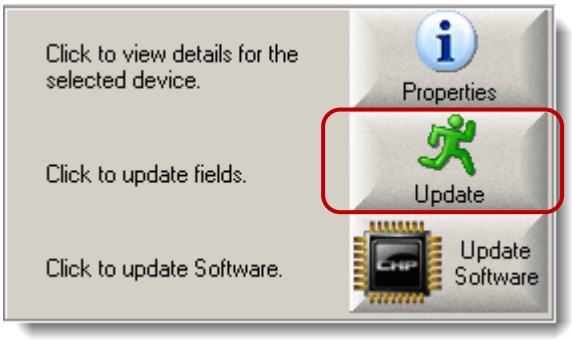
3.1. From the device Configuration screen click in the Universe number field and enter the correct universe number according to the DMX virtual port used: See *Table 1: Universe Values on page 23*



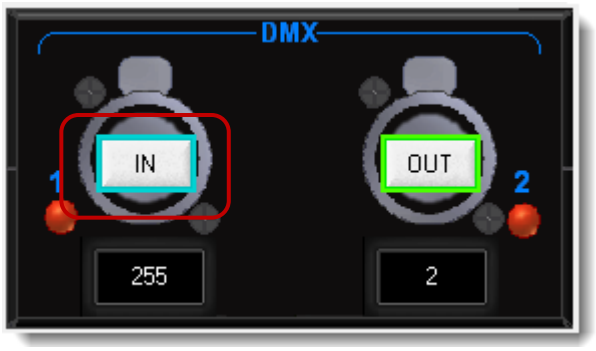
3.2. Click on the OUT button to change the port configuration to IN:



3.3. Click the Update button to apply the settings:



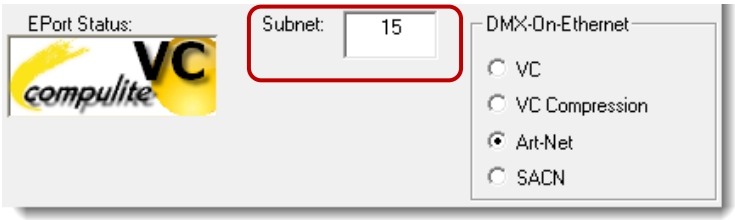
The ePort Status image will display "Updating". A popup will appear indicating if the update is successful or has failed. The border around the button will change to light blue if the update is successful:



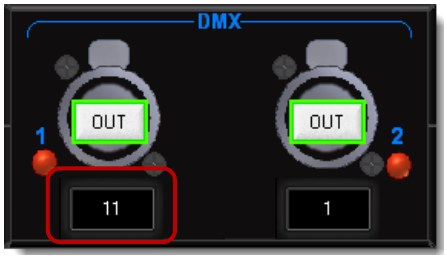
3.4. To configure the Vector console see*: Configuring a Vector Console to Receive DMX Input*

4. For **Art-Net** Protocol follow the Procedure below:

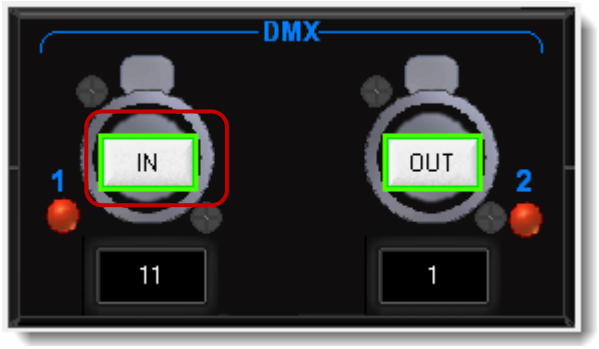
4.1. From the device Configuration screen click in the Subnet field and enter value 15:



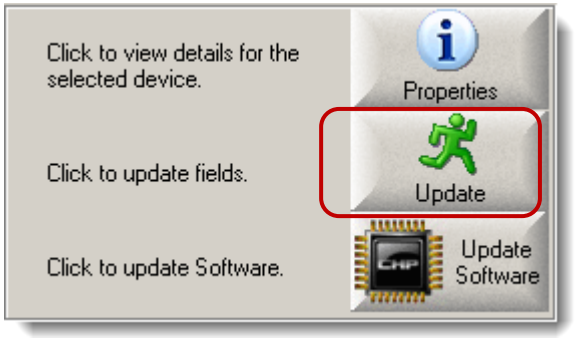
4.2. Click in the Universe number field and enter the correct universe number according to the DMX virtual port used: See *Table 1: Universe Values on page 23*



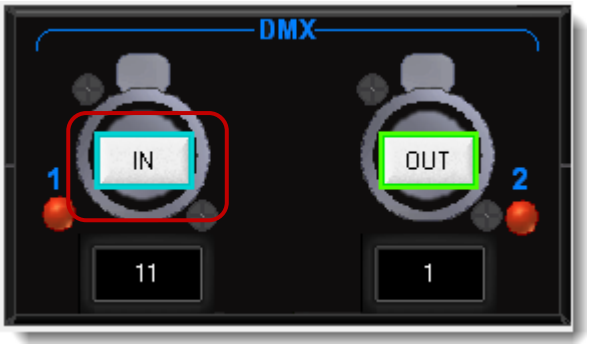
4.3. Click on the OUT button to change the port configuration to IN:



4.4. Click the Update button to apply the settings:



The ePort Status image will display "Updating". A popup will appear indicating if the update is successful or has failed. The border around the button will change to light blue if the update is successful:



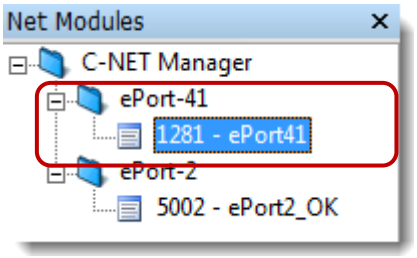
4.5. To configure the Vector console see*: Configuring a Vector Console to Receive DMX Input*

Configuring DMX Inputs on an ePort-41 Device

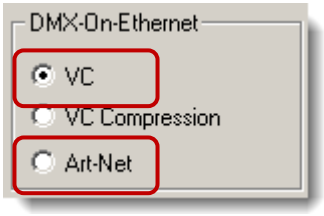
The following procedure will guide through configuring DMX Inputs on an ePort-41 device using either VC or Art-Net protocols.

To Configure DMX Inputs on an ePort-41

1. From the Net Modules pane select an ePort-41 device:



2. From the device Configuration screen select a DMX-On-Ethernet protocol; VC or Art-Net:



For VC Protocol follow Step 3

For Art-Net Protocol follow Step 4

3. For **VC** Protocol follow the procedure below:

3.1. From the device Configuration screen click in the Universe number field under the DMX Input port and enter the correct universe number according to the DMX virtual port used: See *Table 1: Universe Values on page 23*

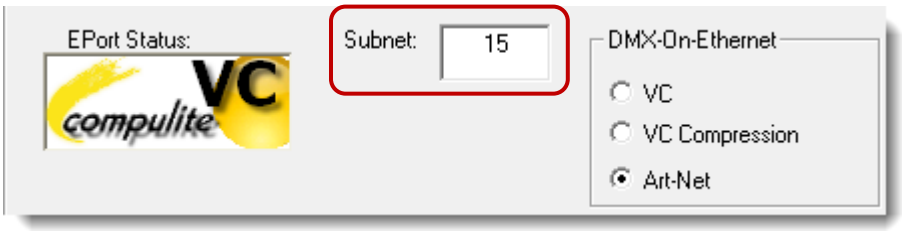
3.2. Click the Update button to apply the settings.

The ePort Status image will display "Updating". A popup will appear indicating if the update is successful or has failed.

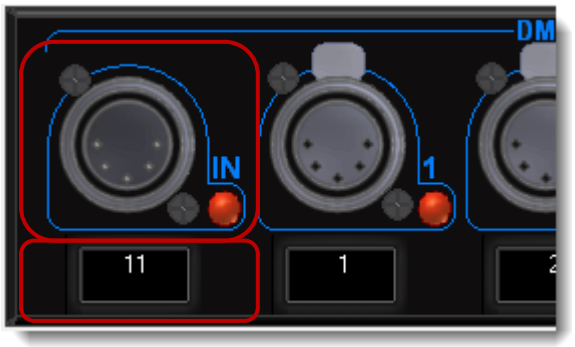
3.3. To configure the Vector console see*: Configuring a Vector Console to Receive DMX Input*

4. For **Art-Net** Protocol follow the Procedure below:

4.1. From the device Configuration screen click in the Subnet field and enter value 15:



4.2. From the device Configuration screen click in the Universe number field under the DMX Input port and enter the correct universe number according to the DMX virtual port used: See *Table 1: Universe Values on page 23*



4.3. Click the Update button to apply the settings.

The ePort Status image will display "Updating". A popup will appear indicating if the update is successful or has failed.

4.4. To configure the Vector console see*: Configuring a Vector Console to Receive DMX Input*

Configuring a Vector Console to Receive DMX Input

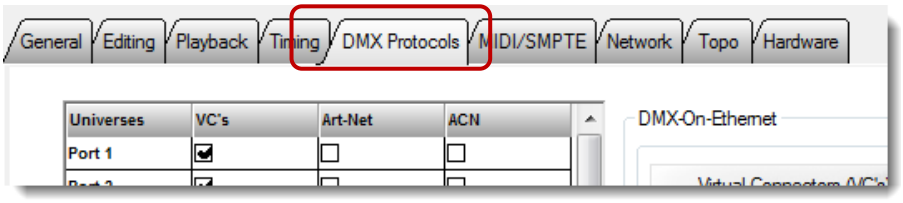
A Vector console needs to be configured to receive DMX Input from an ePort device.

To Configure Vector for DMX Input

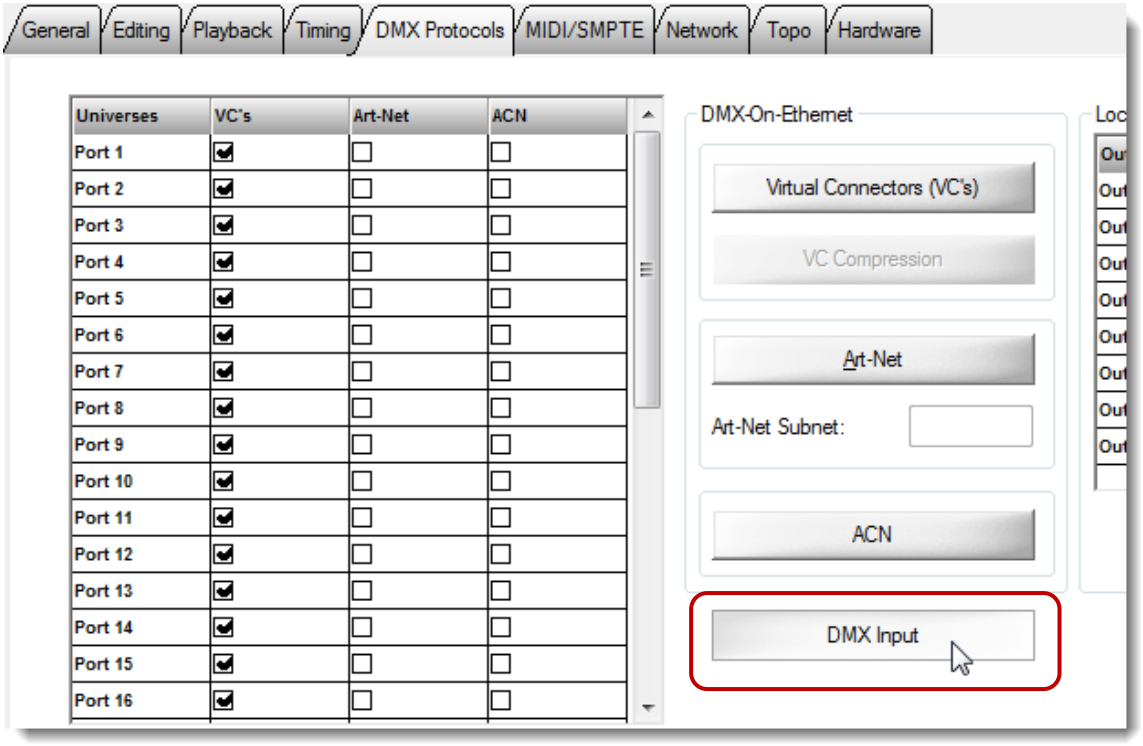
1. From the Vector Menu bar click on Tools ► Settings.

The System Settings dialog will open.

2. From System Settings click on the DMX Protocols tab:

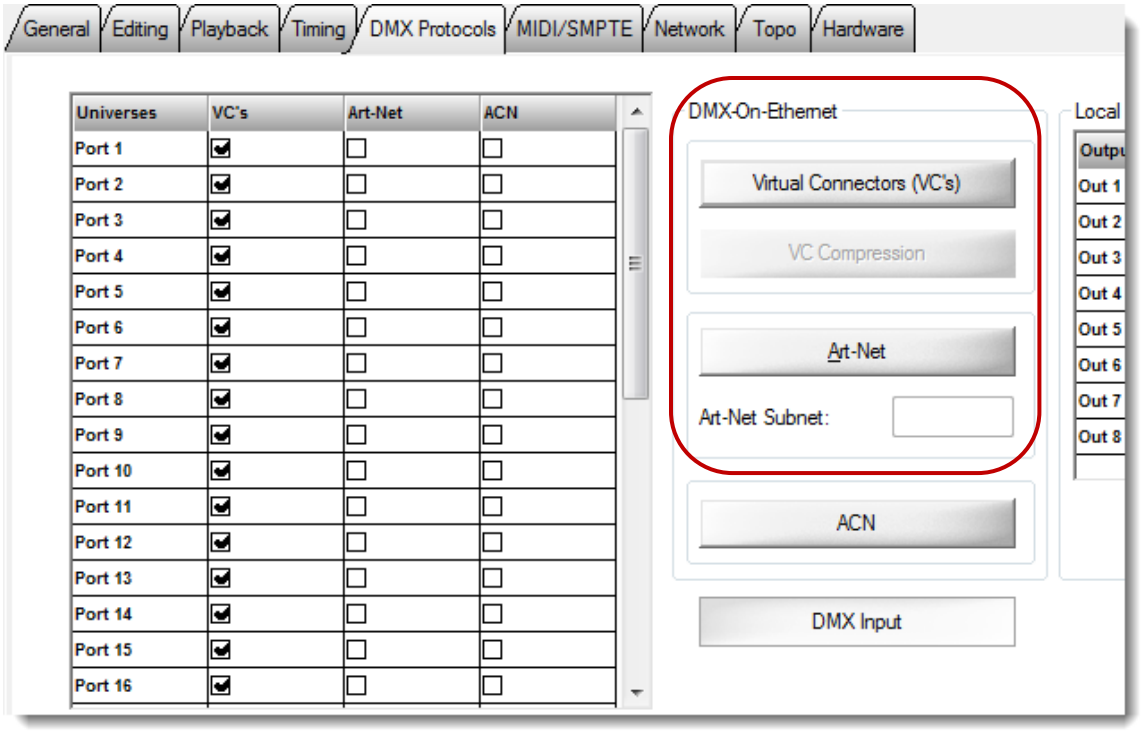


3. Click on the DMX Input button:



4. Select the correct DMX-On-Ethernet protocol button.

NOTE: The DMX-On-Ethernet protocol must be the same as the ePort configuration. When using Art-Net, there is no need to enter a Subnet.



5. Click Apply then click OK.