Extron NAVigator System Manager User Guide

NAVigator
System Manager

User Guide
NAV Pro AV Over IP
68-2740-01, Rev. D
03 24

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NAVigator System Manager

Safety Instructions

WARNING: This symbol, , when used on the product, is intended to alert the user of the presence of

uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

ATTENTION: This symbol,  , when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the Extron Safety and Regulatory Compliance Guide, part number 68-290-01, on the Extron website, **www.extron.com**.

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FCC Class A Notice
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. The Class A limits 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 interference. This interference must be corrected at the expense of the user.

ATTENTION:

- The Twisted Pair Extension technology works with unshielded twisted pair (UTP) or shielded twisted pair (STP) cables; but to ensure FCC Class A and CE compliance, STP cables and STP Connectors are required.

NOTES:

- This unit was tested with shielded I/O cables on the peripheral devices. Shielded cables must be used to ensure compliance with FCC emissions limits.

- For more information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.

Battery Notice
This product contains a battery. Do not open the unit to replace the battery. If the battery needs replacing, return the entire unit to Extron (for the correct address, see the Extron Warranty section on the last page of this guide).

CAUTION: Risk of explosion. Do not replace the battery with an incorrect type. Dispose of used batteries according to the instructions.

Conventions Used in this Guide

Notifications
The following notifications are used in this guide:

CAUTION: Risk of minor personal injury.

ATTENTION:

- Risk of property damage.

NOTE: A note draws attention to important information.
TIP: A tip provides a suggestion to make working with the application easier.

Software Commands
Commands are written in the fonts shown here:

```
^AR Merge Scene,,0p1 scene 1,1 ^B 51 ^W^C.0
[01] R 0004 00300 00400 00800 00600 [02] 35 [17] [03]
Esc X1 *X17* X20* X23* X21 CE←
```

NOTE: For commands and examples of computer or device responses used in this guide, the character "0" is the number zero and "O" is the capital letter "o."

Computer responses and directory paths that do not have variables are written in the font shown here:
Reply from 208.132.180.48: bytes=32 times=2ms TTL=32
C:\Program Files\Extron
Variables are written in italics as shown here:
ping xxx.xxx.xxx.xxx —t
SOH R Data STX Command ETB ETX
Selectable items, such as menu names, menu options, buttons, tabs, and field names are written in the font shown here:
From the File menu, select New.
Click the OK button.

Specifications Availability
Product specifications are available on the Extron website, **www.extron.com**.

Extron Glossary of Terms
A glossary of terms is available at **https://www.extron.com/technology/glossary.aspx**

Introduction

About this Guide
This guide contains installation, configuration, and operating information for the Extron NAVigator Pro AV over IP System Manager.

About the NAVigator
The NAVigator (see figure 1) manages, configures, and controls an AV streaming system consisting of Extron NAV encoders, and decoders (endpoints). The NAVigator also provides a centralized communication bridge between the control system and the endpoints. The NAVigator can support up to 16 endpoints as shipped and can be upgraded via LinkLicenses to support up to 48, 96, or 240 endpoints.

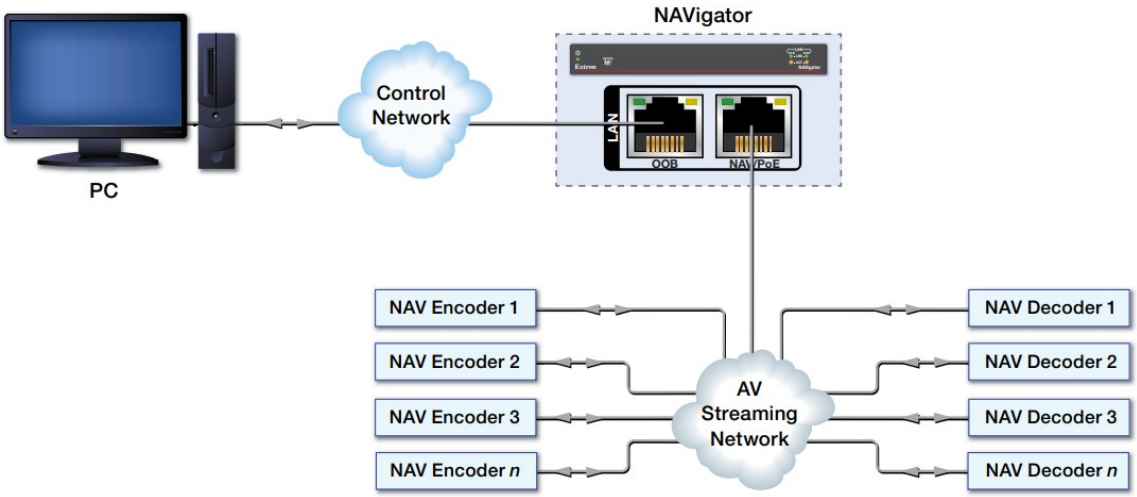


Figure 1. Typical NAVigator Application

The NAVigator provides one central web management interface. It expedites the system deployment process through bulk endpoint configuration, EDID Minder, and ties management features. In addition, it also makes system management easier through system tools such as firmware upgrade, backup, and restore.
The NAVigator is housed in a 1-inch high, half-rack width metal enclosure that can be mounted in any standard 19-inch rack or under furniture with optional mounting kits.
The NAVigator can be powered via Power over Ethernet (PoE) or by an included external 100 VAC to 240 VAC, 50-60 Hz power supply that provides worldwide power compatibility.

About the System
The NAVigator and NAV endpoints form an AV over IP switching matrix on an Internet Group Management Protocol (IGMP) Managed IP Network. The managed AV system can stream:

- HDCP 2.3-compliant HDMI video (which can include embedded digital audio) at resolutions up to 4k@60 Hz and 4:4:4 chroma sampling
- Optional analog audio
- RS-232 and IR control signals

NOTE: The RS-232 and IR communications are only controllable through an Extron Control Processor via a Secure Platform Device (SPD) (see the Global Configurator Plus Help File). The encoder and decoder do not generate or respond to the RS-232 and IR communication signals.

The encoders are configured for low latency multicast streaming.
The decoders tie to an encoder.

Features

- NAVigator API for Third Party Control — An optional NAVigator LinkLicense is available to enable thirdparty

control of NAV systems.

- Securely manages, configures, and controls NAV Pro AV over IP systems.
- Each unit supports up to 240 NAV endpoints — Offers encrypted management and control up to 240 NAV endpoints for centralized, secure management of complete Pro AV over IP systems.
- Intuitive, web-based user interface for ease of use — Intuitive graphical web interface for configuration, monitoring, backup/restoration, and troubleshooting.
- Manages simultaneous configuration of multiple NAV devices — Enables bulk configuration of a large number of devices in a single operation, saving time and simplifying setup.
- Secure encrypted communication between all endpoints — Features secure communication ensuring any data sent to encoders or decoders from the NAVigator is encrypted.
- Workstation On-Screen Display — Displays an OSD on NAV decoders to enable selection of encoder sources for keyboard, video, and mouse (KVM) in multi-display workstation applications.
- WindoWall Mode supports videowall applications — NAV scaling decoders support videowall applications using the Extron WindoWall processing, enabling a mix of full screen and image magnification across multiple displays. WindoWall presets provide a quick and easy way to manipulate the videowall canvas between different image arrangements.
- Confidence preview — Allow you to view the video output on the built-in HTML page of the NAVigator, encoder, and decoder. This feature helps to remotely validate video output during configuration or debugging.
- Customizable Screen Saver — Displays a user-supplied custom image, black screen, blue screen, or the last video frame when no active video signal or stream is present.
- Custom On-Screen Display — Configurable OSD for two lines of custom text to display video source names, security classification levels, or other user-defined information from an encoder.
- Custom Borders — Displays full-screen borders in a variety of colors applied by the control system. These borders may be used in many applications such as security classification, alarm condition, or active display identification.
- Priority Routing — Assign custom tags to end points using NAVigator software. Tags can be used to further classify endpoints, easily locate them on the network, or apply rules for routing with an Extron control system.
- Power over Ethernet, or PoE, eliminates the need for a local power supply — PoE enables receipt of power directly from the PoE switch, eliminating the need for bulky local power supplies.
- Scalable with LinkLicense — The base NAVigator system supports 16 devices with the capability to expand to 48, 96, or 240 with the addition of LinkLicenses.
- Multiple NAVigator systems can work together to support thousands of endpoints, creating futureready solutions that grow with your organization.
- Secure network isolation with dual LAN interfaces — Two isolated, independent LAN ports facilitate control from a secondary network, enabling flexible system design with enhanced security, and eliminating AV traffic on the corporate network.
- Enables parallel firmware update of multiple NAV devices at once — Upgrades firmware on all endpoints directly from the NAVigator web interface for quick and reliable firmware management that enables efficient system enhancements.
- 802.1X port-based Network Access Control — Supports 802.1X port-based authentication, requiring that all devices are approved before network access is granted.
- Integrates with Pro Series control systems for secure, user-friendly external control — Designed to integrate directly with Extron Pro Series control systems for secure, encrypted RS-232 and IR control of external devices without the need for additional control processors.

- External Extron Everlast power supply included — Provides worldwide power compatibility with high-demonstrated reliability and low power consumption.
- Extron Everlast Power Supply is covered by a 7-year parts and labor warranty
- 1-inch (2.5 cm) high, half rack width metal enclosure — Compact, low profile enclosure for discreet placement and concealment.

Installation and Operation

NOTE: For equipment mounting, see Mounting the NAVigator on page 143.

Rear Panel Connections and Features

Figure 2. NAVigator Rear Panel Connectors and Features

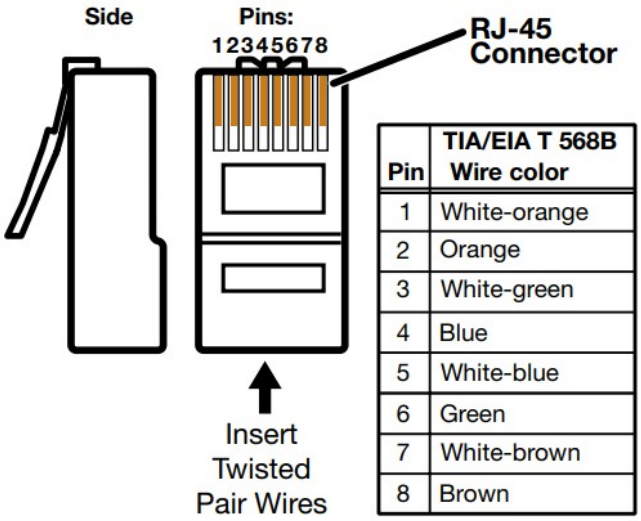
A. Power connector (optional) — See below.
B. NAV/PoE port
C. OOB (Out of Band) port
D. RESET button and LED — See page 5.

A. Power connector (optional) — Plug the included external 12 VDC power supply into this 2-pole connector for power by a local device.
ATTENTION: Do not connect power to the NAVigator until you have read the CAUTION and ATTENTION notices on page 6.
ATTENTION : Ne connectez pas l'alimentation à l'NAVigator avant d'avoir lu les rubriques « ATTENTION » des page 6.
NOTE: Alternatively, the NAVigator can be powered via PoE, supplied by either an optional PI 140 Power Injector or a PoE capable network switch.
B. NAV/PoE port — Connect this port to your A/V LAN network for control of the NAVigator, control of the A/V streaming network (NAV encoders and decoders), or both. Optionally, you can also power the NAVigator by inserting PoE through this port. Streaming endpoints must be on the same network as the NAV/PoE port.
ATTENTION: Power over Ethernet (PoE) is intended for indoor use only. It is to be connected only to networks or circuits that are not routed to the outside plant or building.
C. OOB (Out of Band) port — Connect this port to a network for remote management of the NAV System. The OOB port cannot receive PoE.
NOTE: The OOB Port should not be connected to the same network as the NAV/PoE Port.
D. RESET button and LED (see figure 2 on page 4) — Press this button and observe the LED to initiate three levels of NAVigator reset (see Reset Operations, on page 7).

Connector and Cable Details

Twisted pair cable termination and recommendations

Figure 3 details the TIA/EIA T568-B wiring standard. Use this standard to terminate twisted pair (TP) cables with RJ-45 connectors.



Pin	TIA/EIA T 568B Wire color
1	White-orange
2	Orange
3	White-green
4	Blue
5	White-blue
6	Green
7	White-brown
8	Brown

Figure 3. TP Cable Termination

Power supply wiring

Figure 4 shows how to wire the connector. Use the supplied tie-wrap to strap the power cord to the extended tail of the connector.

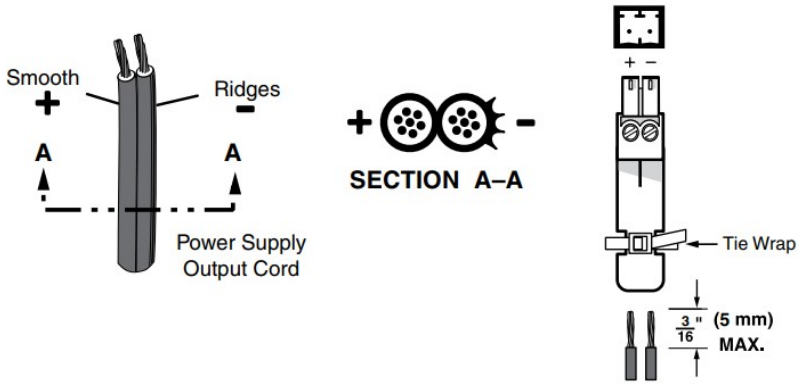


Figure 4. Power Connector Wiring

CAUTION:
ATTENTION:

- The DC output cables must be kept separate from each other while the power supply is plugged in. Remove power before wiring.
- The length of exposed wires is critical. The ideal length is 3/16 inch (5 mm).
  • Any longer and the exposed wires may touch, causing a short circuit.
  • Any shorter and the wires can be easily pulled out even if tightly fastened by the captive screws.
- Do not tin the power supply leads before installing them in the connector. Tinned wires are not as secure in the connector and could be pulled out.

ATTENTION:

- This product is intended to be supplied by a UL Listed power source marked “Class 2” or “LPS,” rated output 12V dc, minimum 0.5 A or 48 Vdc (PoE), minimum 0.35 A or 56 Vdc (PoE), minimum 0.55 A. Always use a power supply supplied by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.
- Unless otherwise stated, the AC/DC adapters are not suitable for use in air handling spaces or in wall cavities.

- The installation must always be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and the Canadian Electrical Code part 1, section 16. The power supply shall not be permanently fixed to a building structure or similar structure.
- Power supply voltage polarity is critical. Incorrect voltage polarity can damage the power supply and the unit. The ridges on the side of the cord (see figure 4 on page 5) identify the power cord negative lead.

To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.

Front Panel Connection and Indicators

Figure 5. NAVigator Front Panel Features

A Power LED — Indicates the unit power status.

- Blinking — The unit is receiving power, either locally or remotely (via PoE) and is booting up.
- Lit — The unit is receiving power, either locally or remotely (via PoE) and is operational.

B Configuration port — Connect to this USB mini-B port (USB 2.0) for product configuration, management and firmware updates.
C LAN LEDs (OOB and NAV) — Indicate the status of the ports.

- LNK (green) — Indicates the status of the link.
  - Blinking — A network link has been established at 10/100 Mbps.
  - Lit — A network link has been established at 1 Gbps.
- ACT (blinking amber) — Network activity is present. The blink rate corresponds to activity.

Basic Operation

Configuration and Other Operations
Configuration and more complex operation of the system is accomplished via embedded web pages (see HTML Operation, beginning on page 9); Extron Toolbelt, Global Configurator Plus, Global Configurator Professional, or Global Scripter (see Control System on page 128), or SIS commands (see SIS Operation, starting on page 132).

Reset Operations
The rear panel RESET button initiates three modes of reset. The RESET button is recessed, so use an Extron Tweeker, a pointed stylus, or ballpoint pen to access it.
See the table on page 8 for a summary of the modes.

ATTENTION: Review the reset modes carefully. Using the wrong reset mode may result in unintended loss of flash memory programming, port reassignment, or a controller reboot.

NOTE:

- The modes listed close all open IP connections and close all sockets.

- For Reset IP Setting and Factory Reset, nothing happens if the momentary press does not occur within 1 second.

Reset Mode Comparison and Summary

Mode	Activation	Result	Purpose and Notes
Run boot code	Hold down the recessed **RESET** button while applying power to the unit. **NOTE:** After a boot code reset, update the unit firmware to the latest version. Do not operate the firmware version that results from the boot code reset. If you want to use the factory default firmware, upload that version again (see **Updating the NAVigator firmware** on page 93 for details on uploading firmware).	The unit reverts to the factory default firmware. All user files and settings, such as IP settings, are maintained. **NOTE:** If you do not want to update firmware, or you performed a mode 1 reset by mistake, cycle power to the unit to return to the firmware version that was running before the mode 1 reset (see **About Page** on page 127 to find the firmware version).	Reset to factory firmware to return return the unit to the factory default firmware version if incompatibility issues arise with user-loaded firmware.
Reset network IP settings	Hold the **RESET** button for approximately 6 seconds, until the RESET LED blinks twice (once at 3 seconds and again at 6 seconds). Then momentarily press **RESET** within 1 second.	Resets all the IP settings without affecting the device configuration. Reset IP settings: • Enables ARP capability. • Sets the IP address, subnet address, gateway address, and port mapping to the factory default. • Sets the Multicast IP, stream number and device name to the factory default. • Turns DHCP on. The RESET LED blinks three times in succession during the reset.	Enables you to set IP address information using ARP and the MAC address.
Full factory reset	Hold the **RESET** button for approximately 9 seconds, until the RESET LED blinks three times (once at 3 seconds, again at 6 seconds, and then again at 9 seconds). Then momentarily press **RESET** within 1 second. **NOTE:** Full factory reset reverts the factory-configured username to admin and password to extron.	Does everything Reset network settings does: • Resets all settings with the exception of factory firmware. • Resets all IP options. • Removes all files from the unit. • Removes the initial serial number passwords and sets them to extron. The RESET LED blinks four times in succession during the reset.	Full factory reset is usefuif you want to start over with configuration and uploading or to replace events. Same as the Esc ZQQQ← SIS command on page 137.

Performing Factory and IP Resets

Perform resets of the unit as follows (see figure 6):

1. Use a small screwdriver to press and hold the rear panel RESET button until the rear panel RESET LED blinks either:
   • Twice, for an IP settings reset
   • Three times for an absolute (factory) reset

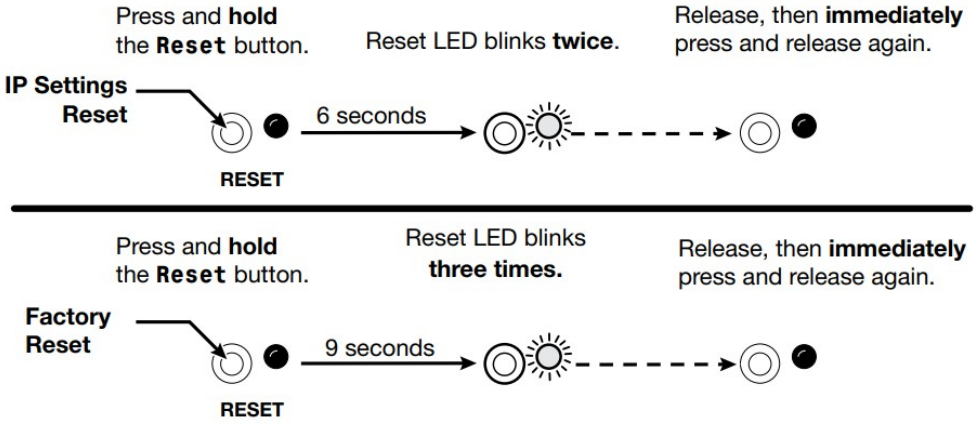


Figure 6. Resets

2. Release the RESET button and then immediately press and release the RESET button again. Nothing happens if you do not momentarily press RESET within 1 second.

HTML Operation

The NAVigator can be controlled and operated through either the front panel CONFIG (USB) port (see figure 5, **A** on page 7) or the rear panel NAV/PoE port (see **figure 2, B** on page 4) or OOB port (**C** on page 4). The Configuration port uses IP over USB technology. The factory-embedded pages are always available and cannot be erased or overwritten.

NOTE: If connection to the NAVigator using either the NAV/PoE port or OOB port is unstable, try turning off the proxy server in your web browser.

Opening the Embedded HTML Pages
Access the NAVigator using HTML pages as follows:

1. Start the web browser.

   NOTES:

   • Extron recommends the following browsers to fully support the NAV system:

   • Google Chrome — All screen images in this guide use Chrome

   • Mozilla Firefox

   • Microsoft Edge

   • The network must be properly configured for multicasting (IGMP). Failure to do so may result in degraded performance.

2. Click in the Address field of the browser and enter the IP address.

   NOTES:

   • Default settings:

Port	DHCP	IP address	Subnet mask
Config (USB)*		203.0.113.22	
NAV/PoE (RJ-45)†	On		
OOB (RJ-45)	Off	192.168.253.254	255.255.255.0

   * For the Config port, the address for IP over USB CANNOT be changed.

   † For the NAV/PoE port, if unit does not receive an IP address from the DHCP Server, it self-assigns a Link Local IP address in the range 169.254.X.X.

   If you use IP over USB, Extron recommends waiting a minute after plugging in the cable from your PC to identify the USB connection as a valid Ethernet port.

3. Press the keyboard <Enter> key.

   NOTES:

   • If you do not have the appropriate SSL Certificate, the browser displays a privacy notification (see figure 7). Continue to the login dialog box as follows:

   1. Click Advanced **(1).** The button changes to Hide Advanced and explanatory text and a link appear below the button.

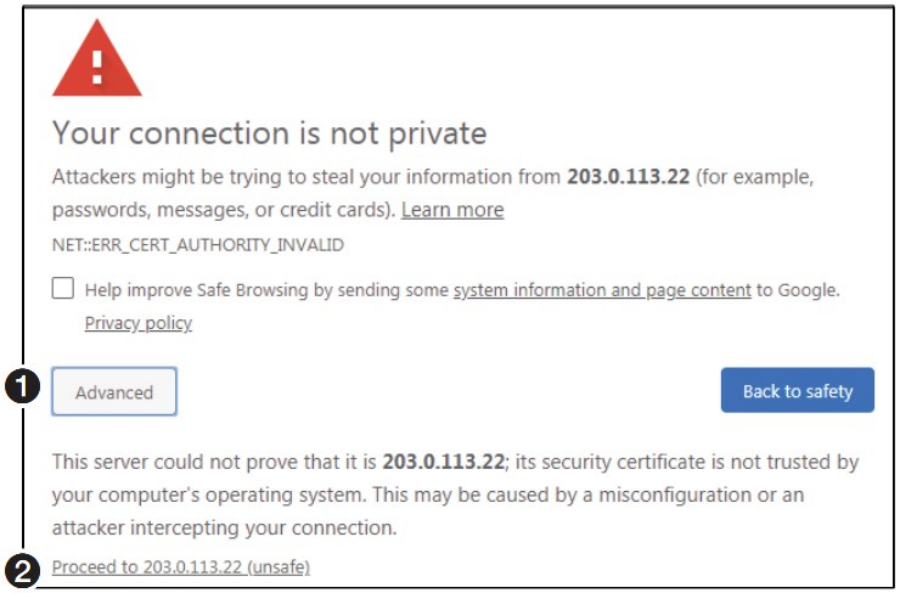


Figure 7. Privacy Notification

2. Click Proceed to <IP address> (unsafe) **(2).**

• Your IT department can provide an uploadable SSL Certificate (see Toolbelt on page 128). Once the certificate is loaded, the notification does not occur.

The browser opens to the Login dialog box (see figure 8).

Figure 8. Login Dialog Box

4. Enter the Username (see figure 11, **(1)**) and Password **(2)** and click Sign In **(3).** The browser opens the embedded decoder web pages (see figure 9 on page 11).

NOTES:

• The factory configured passwords for all accounts on this device have been set to the device serial number. In the event of a complete system reset, the passwords revert to the default.

The default username is admin and the default password is extron.

• Passwords are case sensitive.

NOTE: The HTML page shown may open with any of the panels (items 2 through 9 below) selected.

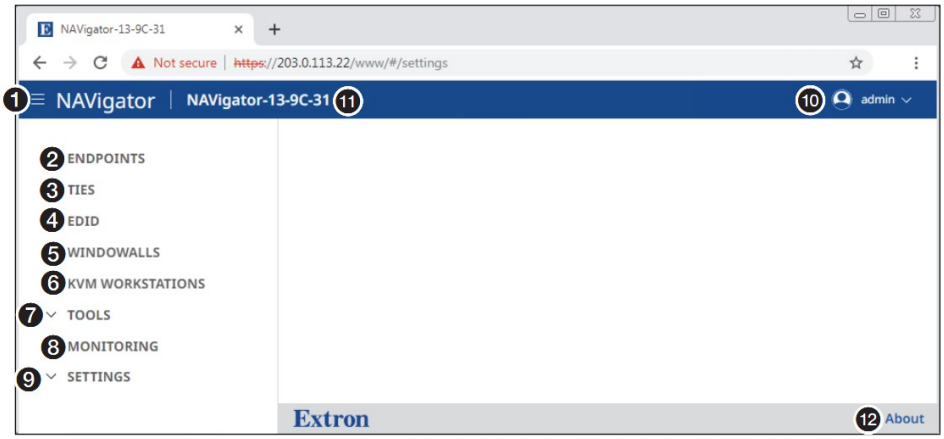


Figure 9. Home Page

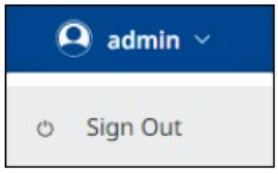
See figure 9 and the detailed descriptions in “HTML Pages Overview”.

1 Menu icon **2** ENDPOINTS link **3** TIES link **4** EDID link **5** WINDOWALLS link **6** KVM WORKSTATIONS link	**7** TOOLS link **8** MONITORING link (see page 12) **9** SETTINGS link **10** admin link **11** Name banner **12** ABOUT link

HTML Pages Overview

See figure 9 and the following sections for an overview of the following panes or functions. See Creating a NAV System on page 28 for procedures to use items 9, 2, and 3 to create a NAV system. See Detailed Descriptions and Operations on page 37 for detailed descriptions of items 4 through 8, and 12.

1. Menu icon — Toggles to hide or show the links pane (items 2 through 9).
2. Endpoints link — Opens a page that allows you to discover and assign endpoints. You can then view these assigned endpoints and make configuration and communications settings changes to them (see Endpoints Page on page 13).
3. TIES link — Opens a page that allows you to make and break ties (see Ties Page on page 13).
4. EDID link — Opens a page that allows you to select an EDID and assign it to one or more inputs (encoders) (see EDID Page on page 14).
5. WINDOWALLS link — Opens a page that allows you to configure NAV WindoWall canvases and to save, apply, and clear NAV WindoWall presets (see WINDOWALLS Page on page 15).
6. KVM WORKSTATIONS link — Opens a page that provides tools for creating and configuring KVM workstations (see KVM WORKSTATIONS Page on page 18).
7. TOOLS link — Opens pages that provide NAVigator tools and tools for entire system, including the endpoints (see Tools Pages on page 21).
8. MONITORING link (see figure 9 on page 11) — Opens a page that shows system status information (see Monitoring Page on page 22).
9. SETTINGS link — Opens a page that provides access to many NAVigator device settings (see Settings Page on page 27).
10. admin link — Click to display the Sign Out button. Click Sign Out to log out of the NAVigator HTML pages.



11. Name banner — Displays the host name and the device name.
12. About link — Opens a page that provides information about the NAVigator (see About Page on page 127).

    NOTE: The log in to the HTML pages automatically times out after 30 minutes of user inactivity.

Endpoints Page

The Endpoints page allows you to discover endpoints and assign one or more to the NAVigator. To access the Endpoints page, if necessary, click the Menu icon (see figure 10, 1, below, and figure 11, 1 on page 13). Click ENDPOINTS **(2).** The Endpoints page opens. See Creating a NAV System on page 28 for a detailed description of discovering and assigning endpoints as part of creating a system.
Figure 10 shows the Endpoints page when no endpoints have been discovered or assigned.
Figure 11 shows the Endpoints page when endpoints have already been discovered and assigned and are online.

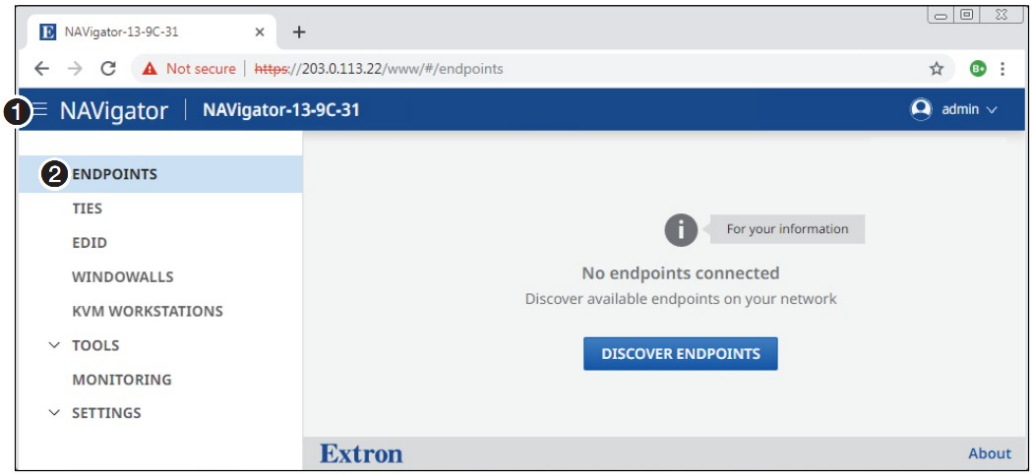


Figure 10. Endpoints Page with no Discovered Endpoints

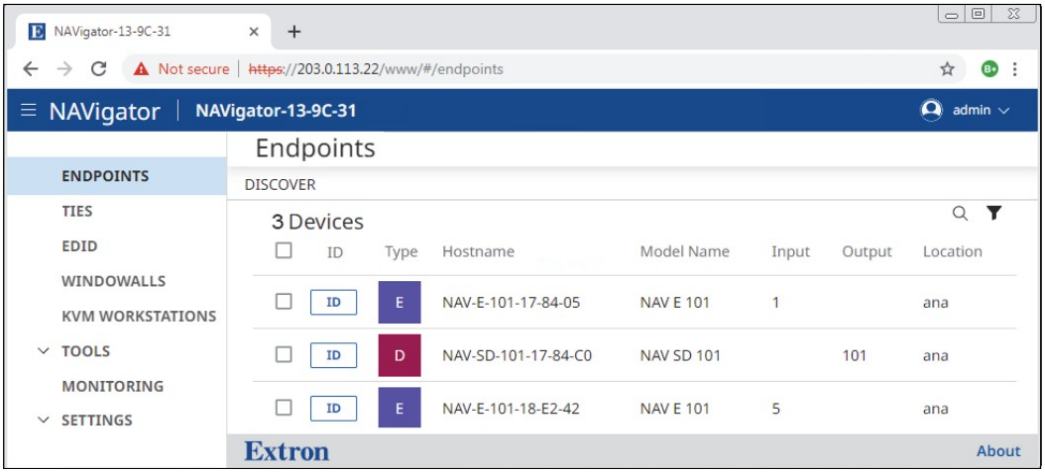


Figure 11. Endpoints Page with Discovered and Assigned Endpoints

Ties Page

The Ties page allows you to make or break ties to create or change the input/output matrix in a NAV system. To access the Ties page, if necessary, click the Menu icon (see figure 12, **1**). Click TIES (**2**). The Ties page opens, displaying a grid of endpoints assigned to this NAVigator and indicates existing ties. See Creating a NAV System on page 28 for a detailed description of assigning and tying endpoints as part of creating a system.

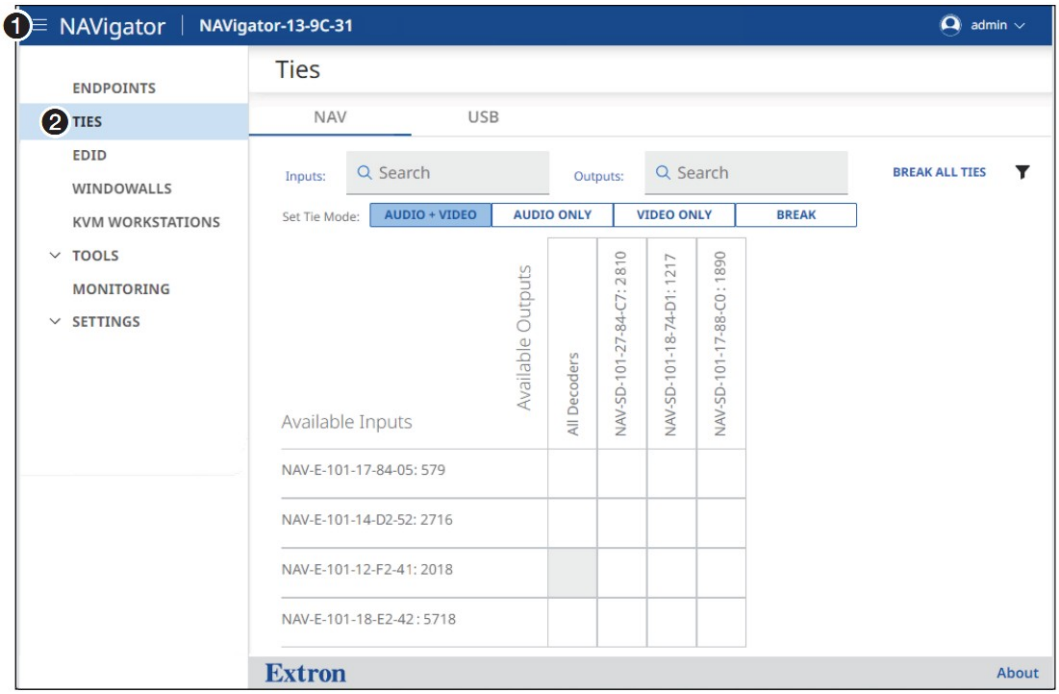


Figure 12. Ties Page

EDID Page

The EDID page allows you to select an EDID and assign it to one or more inputs (encoders). To access the EDID page, if necessary, click the Menu icon (see figure 13, **1**). Click EDID (**2**). The EDID page opens, displaying a library of available EDIDs, favorite EDIDs, and connected output (display) EDIDs. See EDID Page on page 63 for a detailed description of using EDIDs.

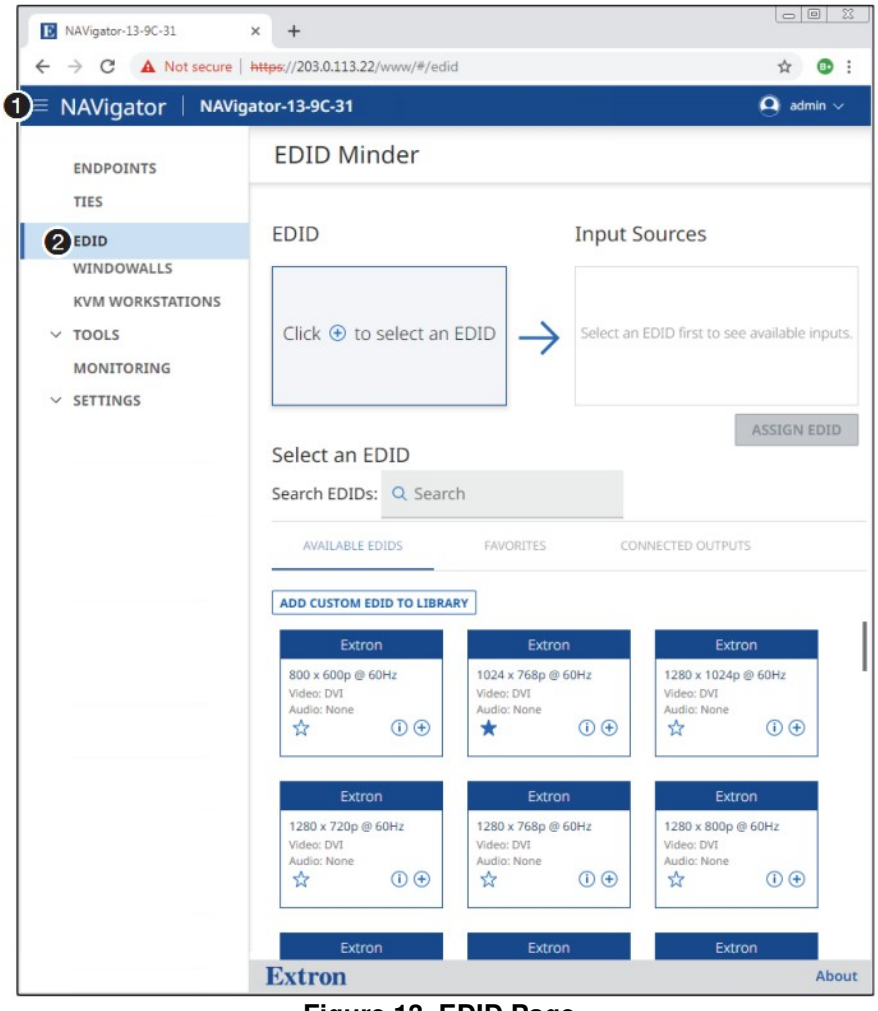


Figure 13. EDID Page

WINDOWALLS Page

The NAVigator can support up to eight NAV WindoWalls with mixed sources. The NAVigator can support up to eight workspaces called canvases, each of which can support up to eight rows by eight columns.

The WINDOWALLS page provides tools to configure NAV WindoWall canvases, assign encoders (sources) to the canvases, and to save the canvas as a NAV WindoWall preset. To open the WINDOWALLS page, if necessary, click the Menu icon (see figure 14, 1). Click WINDOWALLS (2).

See WINDOWALLS page on page 73 for a detailed description of using this page to create NAV WindoWalls and presets, Creating a canvas on page 73, and Creating WindoWall presets on page 78.

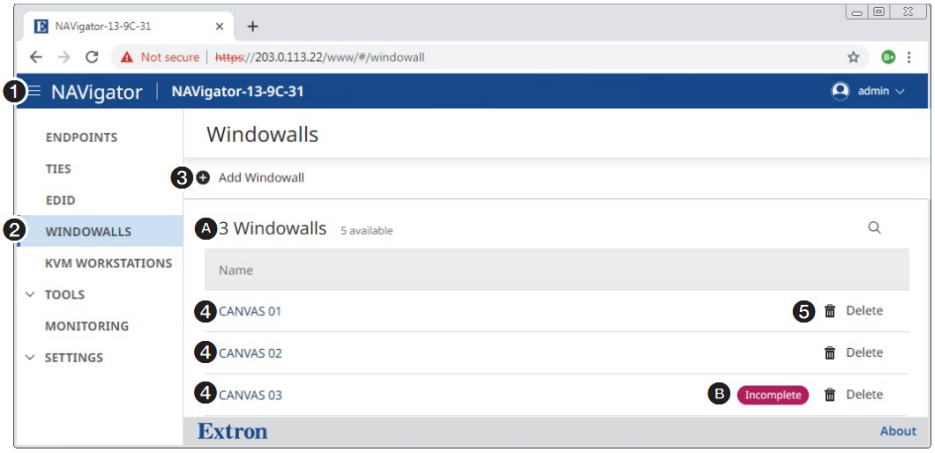


Figure 14. WINDOWALLS Page

The WindoWalls page consists of the following elements:

3 Add WindoWall button — Add a new WindoWall to configure.

4 Canvas selection links — Select a canvas to configure. When you select a canvas, the Canvas Configuration page opens (see Canvas Configuration page on page 16).

5 Delete — Select a canvas to delete.

TIPS:

- The WindoWalls row **(A)** shows how many WindoWalls have been created for this NAV system and how many more are available for creation.
- Incomplete **(B)** indicates a canvas is not finished being configured and is not ready for use as a WindoWall.

Canavas Configuration page

The Canvas Configuration page (see figure 15) provides tools to assign decoders to NAV WindoWall canvases.

See WINDOWALLS page on page 73 for a detailed description of using this page to create NAV WindoWall canvases.

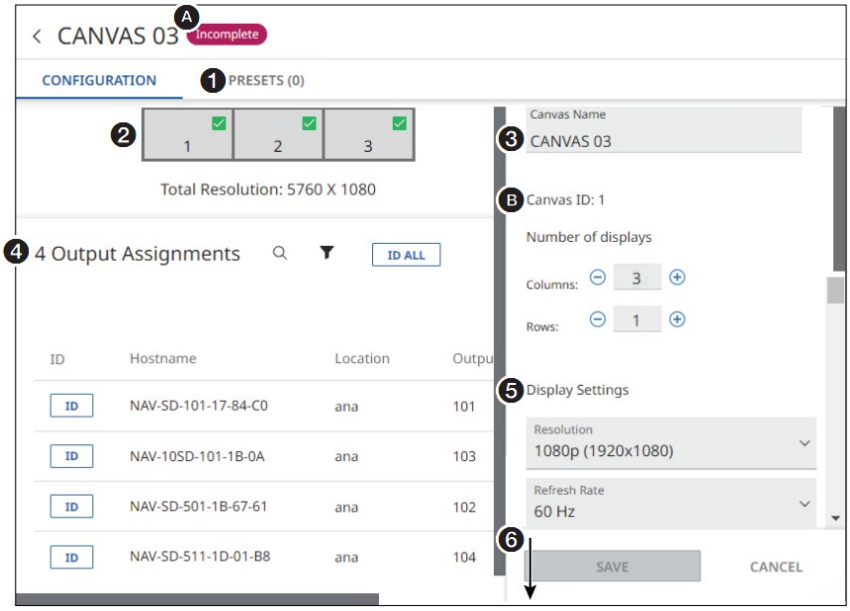


Figure 15. WindoWall Canvas Configuration Pane

The CANVAS CONFIGURATION pane consists of the following elements:

1. PRESETS tab — Opens the Canvas Preset pane (see Canvas PRESETS pane on page 17).
2. Canvas view — A grid diagram in which each cell represents a display in the NAV WindoWall and which can include the display number (displays are numbered horizontally on the canvas view), the decoder, and the total output resolution.
3. Canvas configuration — Provide the Canvas ID (for identification to a control system), define the size of the canvas, and assign it a name.
4. Output Assignments — Assign decoders to the displays in the NAV WindoWall.
5. Display Settings — Adjust the display settings of all outputs in the canvas, such as layouts and output resolutions.
6. Mullion Compensation (off-screen on figure 15, see figure 78, 3 on page 77) — Adjust the space around displays to extend the image “behind” the bezels of flat panels.

NOTE: Incomplete (A) indicates a canvas is not finished being configured and is not ready for use as a WindoWall.
TIP: Each canvas has a Canvas ID (B) that identifies that canvas. If you need to reference a canvas from a control system, the canvas ID does not change, even if you have renamed the canvas.

Canvas PRESETS pane
The PRESETS page (see figure 16) allows you to assign encoders (sources) to NAV WindoWall canvases and to save the canvas as a NAV WindoWall preset. See WINDOWALLS page on page 73 for a detailed description of using the Canvas Configuration page and this page and to create NAV WindoWalls and presets.

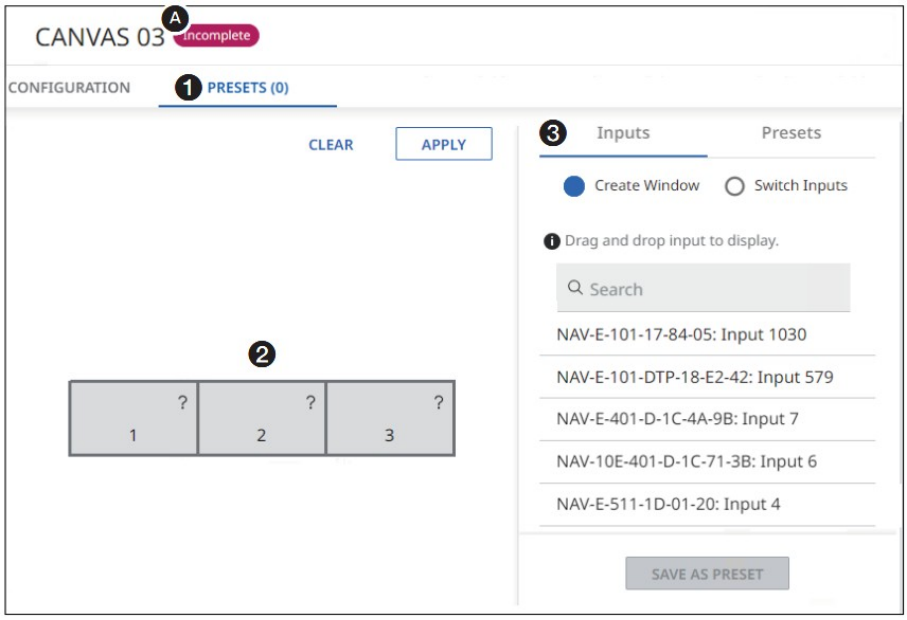


Figure 16. WindoWall PRESETS Page

The PRESETS pane (see figure 17) consists of the following elements:

1. CONFIGURATION tab — Opens the CANVAS CONFIGURATION pane (see CANVAS CONFIGURATION pane on page 16).
2. Canvas view — A grid diagram in which each cell represents a display in the NAV WindoWall.
3. Input and preset controls — Assign encoders, manage presets, and switch inputs.

NOTE: Incomplete (A) indicates a canvas is not finished being configured and is not ready for use as a WindoWall.

KVM WORKSTATIONS Page

The NAVigator can support up to eight KVM workstations, each of which allows the NAV system to function as a KVM-Over-IP Matrix KVM workstation. Users can control a selection of computers that are remotely located from a single workspace.

The KVM Workstation page provides tools for creating and configuring KVM workstations.

To access the KVM Workstation pages, if necessary, click the Menu icon (see figure 17, 1). Click KVM WORKSTATIONS (2).

See KVM Workstations page on page 81 for a detailed description of using this page to create KVM workstations and presets,Creating a KVM Workstations on page 81, and Creating KVM presets on page 85 to create presets.

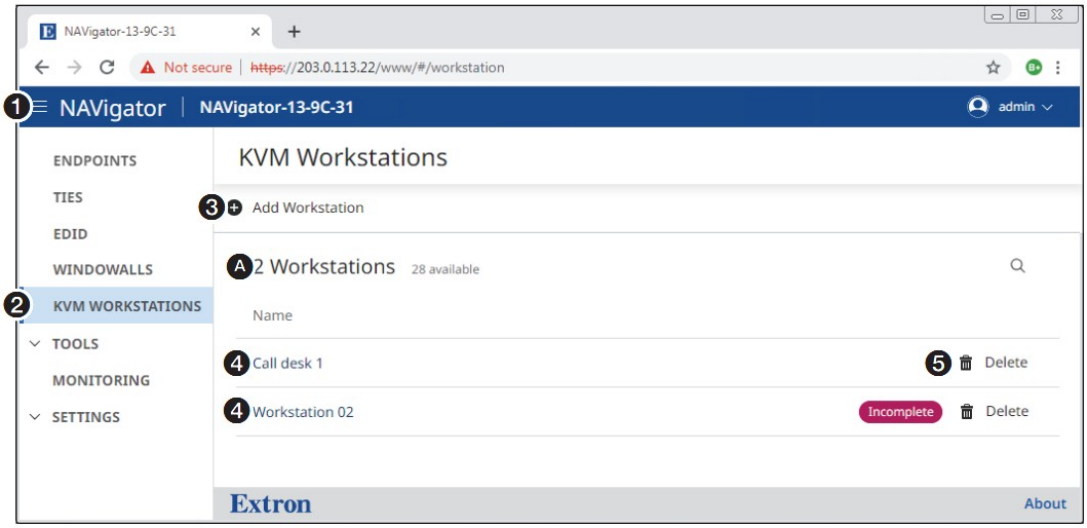


Figure 17. KVM Workstation Pane

The KVM Workstation page consists of the following elements:
3 Add Workstation button — Add a new KVM workstation to configure.
4 Workstation selection links — Select an existing KVM workstation to configure or delete. When you select a workstation, the KVM Configuration page opens (see Workstation PRESETS pane on page 20).
5 Delete — Select a KVM workstation to delete.

TIP:

- The Workstation row **(A)** shows how many KVM workstations have been created for this NAV system and how many more are available for creation.
- Incomplete **(B)** indicates a workstation is not finished being configured and is not ready for use.

KVM Configuration page
TheKVM Configuration page (see figure 18) provides tools to assign decoders and encoders to KVM workstations. See Creating a KVM Workstations on page 81 for a detailed description of using this page and Creating KVM presets on page 85 to create presets.

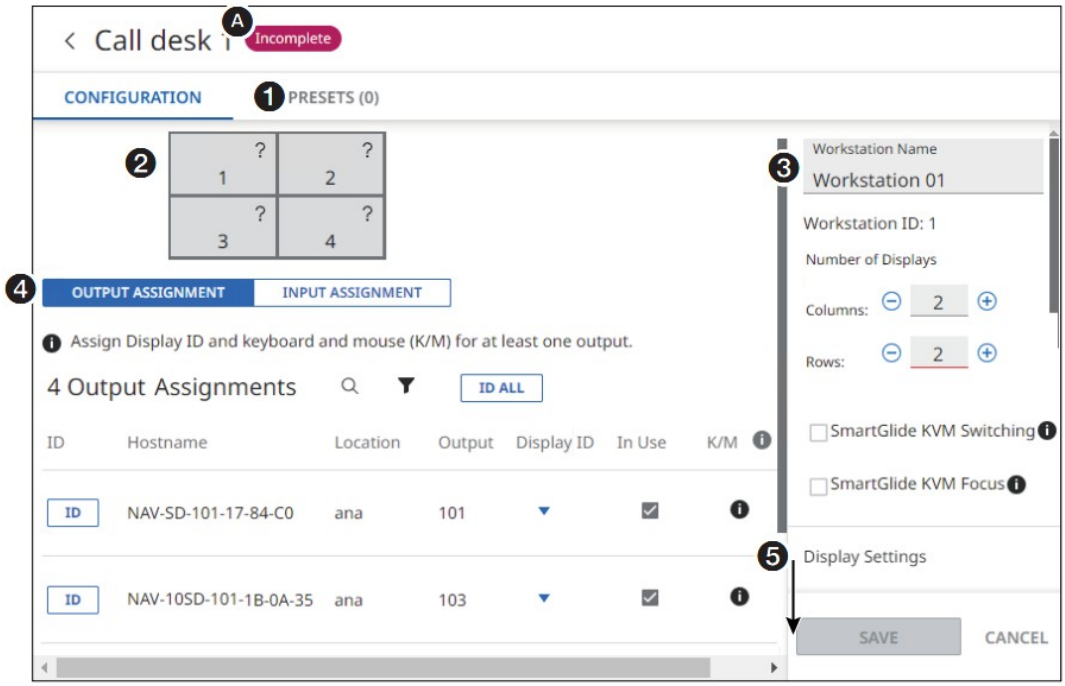


Figure 18. KVM Configuration Page

The KVM CONFIGURATION page consists of the following elements:

1. PRESETS tab — Opens the Workstation Preset pane (see Workstation PRESETS pane on page 20).
   NOTES:
   • Incomplete (A) indicates a configuration is not finished being configured and is not ready for use.
   • If you select Presets while the configuration is Incomplete (A), the PRESETS pane reports:
   Incomplete Workstation Configuration
   To edit Presets, assign a decoder to each display, and, keyboard and mouse (K/M) for at least one output
2. Workstation display layout — A virtual representation of how displays are set up at the workstation desk. Each cell represents a display.
3. Workstation Configuration pane — Specify a workstation name (or use the default, Workstation nn), provide a Workstation ID (for identification to a control system), and enables and disables the Extron SmartGlide KVM switching and SmartGlide KVM focus features.

4. Input Assignment and Output Assignment buttons (see figure 18 on page 18) — Click to select input (encoder) and output (decoder) variables to configure.
5. Display Settings (off-screen on figure 18, see figure 84, 7 on page 82) — Adjust the display settings of all outputs (decoders) in that workstation.

Workstation PRESETS page

The Presets page (see figure 19) allows you to save the workstation with different combination of allowed inputs and USB ties and with one input assigned keyboard and mouse control. Creating a KVM Workstations on page 81 for a detailed description of using the KVM Configuration page and this page and to create KVM workstations and presets.

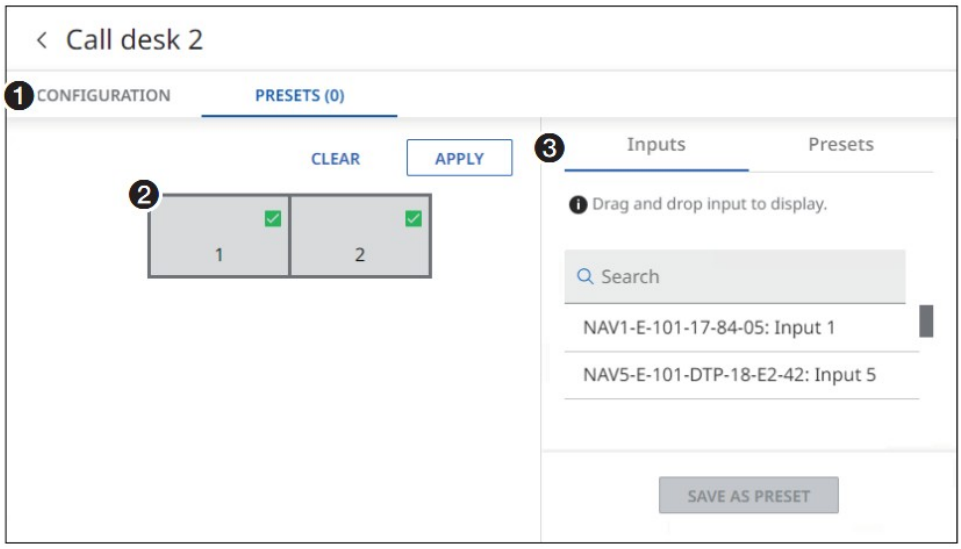


Figure 19. Workstation Presets Page

The Workstation PRESETS page (see figure 19) consists of the following elements:

1. CONFIGURATION tab — Opens the KVM CONFIGURATION pane (see KVM CONFIGURATION pane on page 19).
2. Workstation display layout — A virtual representation of how the displays are setup at the workstation desk. Each cell represents a display in the KVM workstation.
3. Input and preset controls — Show available encoders and manage saved presets.

Tools Pages

The Tools pages provide a variety of NAVigator, system, and network tools.
To access the Tools pages, if necessary, click the Menu icon (see figure 18, 1).
Click TOOLS (see 1 in the illustration at right) and select among:

- Device Tools (2, NAVigator tools, see “Device Tools page”)
- System Tools (3, endpoints tools, see System Tools page on page 22)
- Diagnostic Tools (4, network diagnosis, see Diagnostic Tools page on page 23).
- Commissioning Report (5, report of the complete system configuration, see Commissioning Report page on page 24).

Device Tools page

The Device Tools page consists of four tabs (2), BACKUP, RESTORE, FIRMWARE, and RESET that provide NAVigator tools. See Device tools page on page 90 for detailed descriptions of these NAVigator tools.

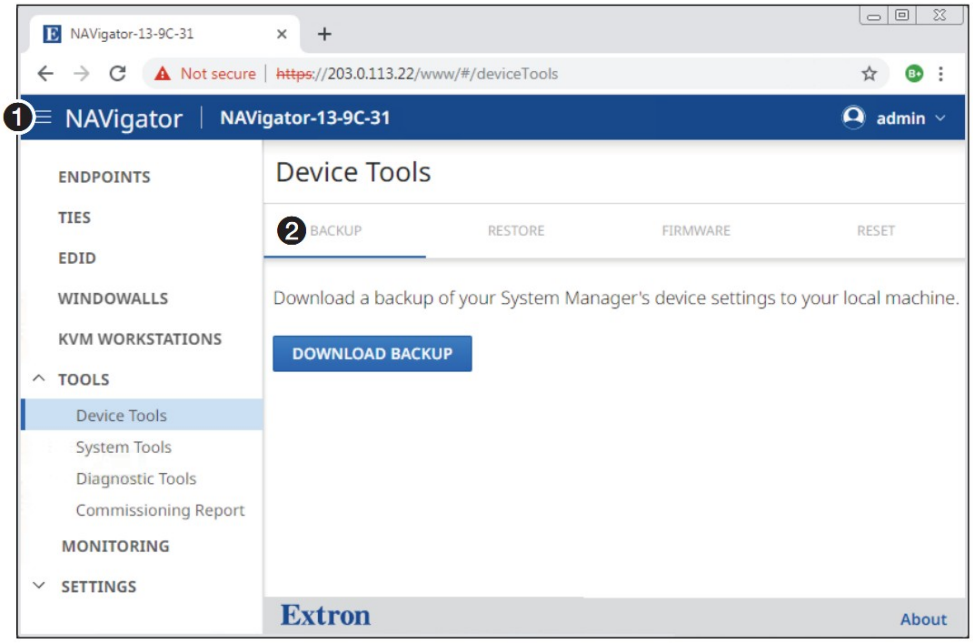


Figure 20. Device Tools Page

System Tools page

The System Tools page consists of three tabs (see figure 20, 1), BACKUP, RESTORE, and FIRMWARE that provide tools for the NAV system, including all assigned endpoints. See System Tools Page on page 96 for a detailed description of these system tools.

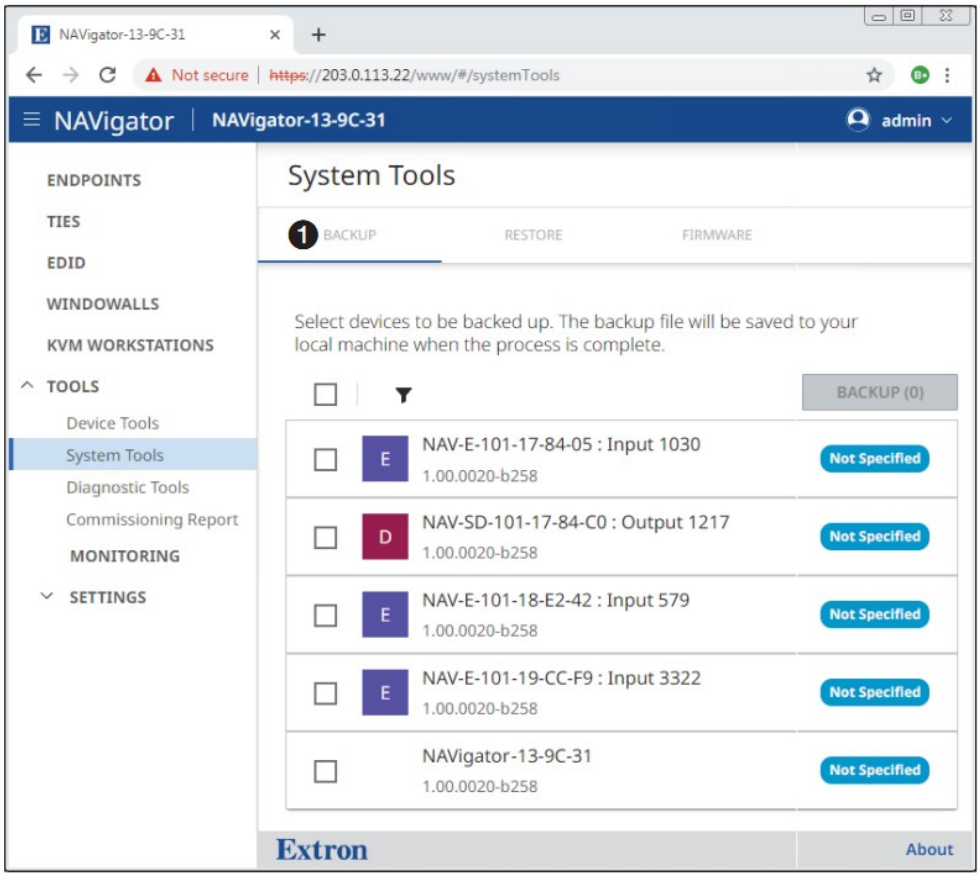


Figure 21. System Tools Page

Diagnostic Tools page

The Diagnostic Tools page (see figure 23) provides tools that allow you to troubleshoot the connection to other units on the NAV network. Access the page as follows:

1. Click the TOOLS > Diagnostic Tools link on the left side of the browser (1). The browser displays the Diagnostic Tools page.

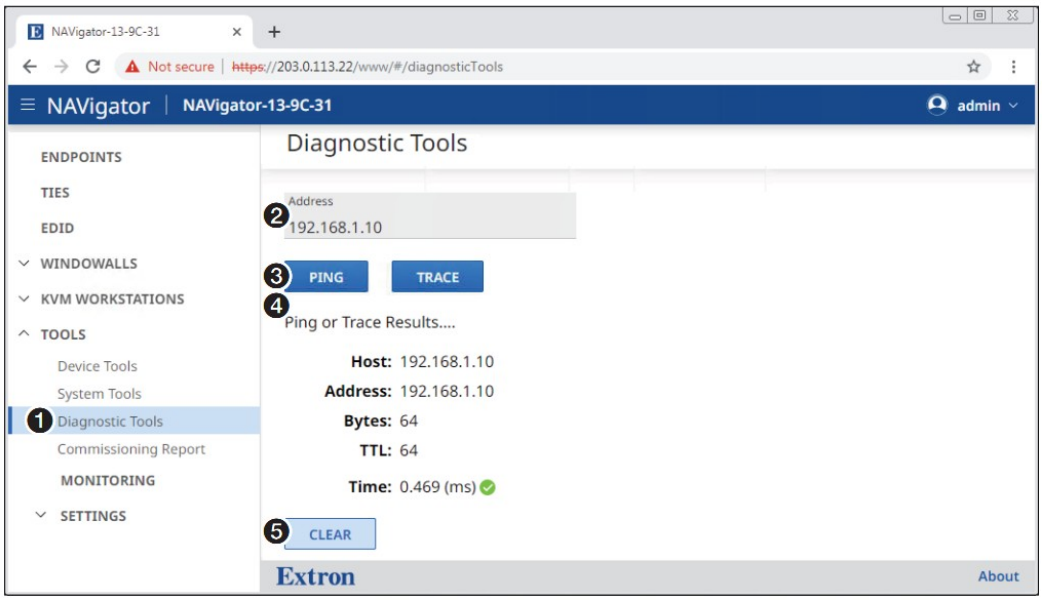


Figure 22. Diagnostic Tools Page, Ping Results Shown

2. Click in the Address field and type in the IP address of another unit on the network (2).
3. Click either PING or TRACE (3), depending on the diagnostic you want to run.

NOTES:

• Ping — Use this tool to test the connection to another unit on the network. Figure 23, 4 shows the typical results of a Ping diagnostic.

• Trace — Use this tool to trace the network route taken by a packet from source to destination. Figure 27 shows the typical results of a Trace diagnostic.

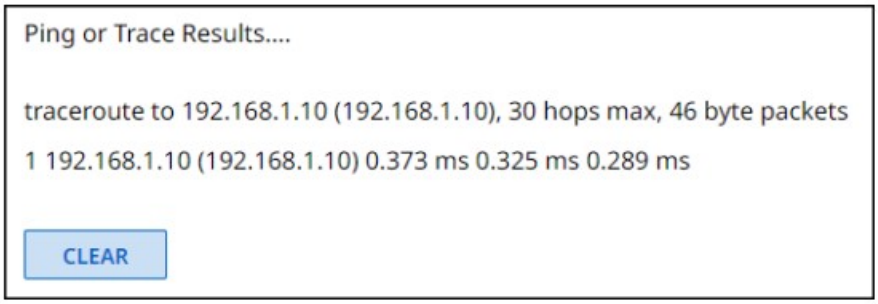


Figure 23. Trace Results Shown

4. Click CLEAR (5) to reset the Address field if you want to run another diagnostic.

Commissioning Report page

The Commissioning Report page (see figure 24) allows you to generate a report detailing the topology of the NAV system. Prepare a report as follows:

NOTE: To prevent interference with AV streaming or incorrect data in the report, do not create the commisioning report while the system is being configured.

1. Click the TOOLS > Commissioning Report link on the left side of the browser (1). The browser displays the Create Commissioning Report page.

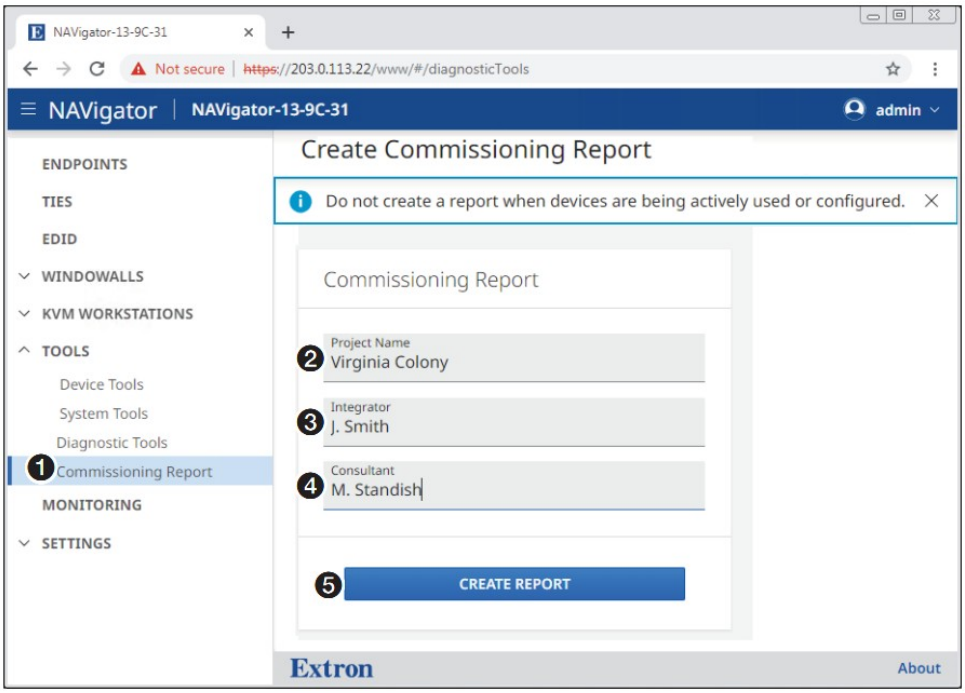


Figure 24. Displayed Report

2. If desired , enter a Project Name (2), Integrator name (3), and Consultant name (4).
3. Click CREATE REPORT.

   The NAVigator prepares a displays a report (see figure 25 on page 25) detailing the composition of the AV system including items such as (among other things):

NAVigator:	
• Name	• Firmware version
• Power source	• LinkLicenses
• LLDP settings	• Control systems
• Serial number	• Part number
• AV LAN Comm settings	• OOB Comm settings
Endpoints:	
• Name	• Model
• Serial numbers	• Part numbers
• Streaming status	• AV
• Input/output number	• Firmware versions
• Power sources	• Comms
• AES67	

4. If desired to print the multi-page report, or save it as a PDF file, click Print (see figure 25, 1).

   TIP: To allow the printed tables to fit better, select landscape mode for the output.

   The NAvigator prints or saves the mult-page report (see figure 26).

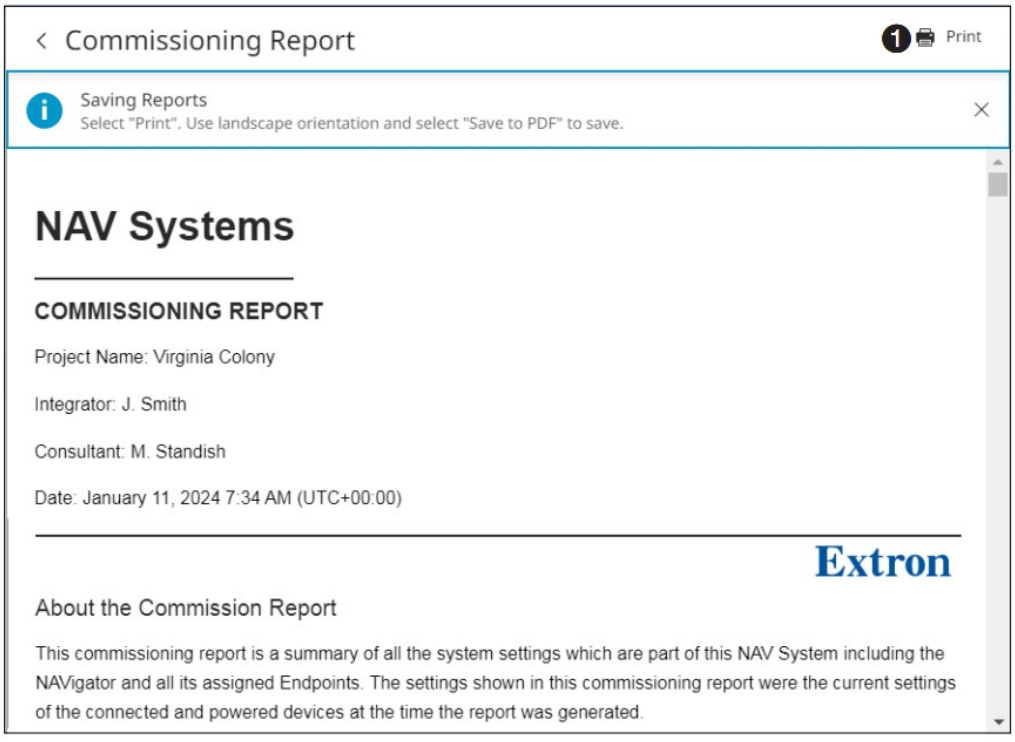


Figure 25. Sample Displayed Report

NAV Systems

COMMISSIONING REPORT

Project Name: Virginia Colony

Integrator: J. Smith

Consultant: M. Standish

Date: January 11, 2024 9:18 AM (UTC+00:00)

Page 1

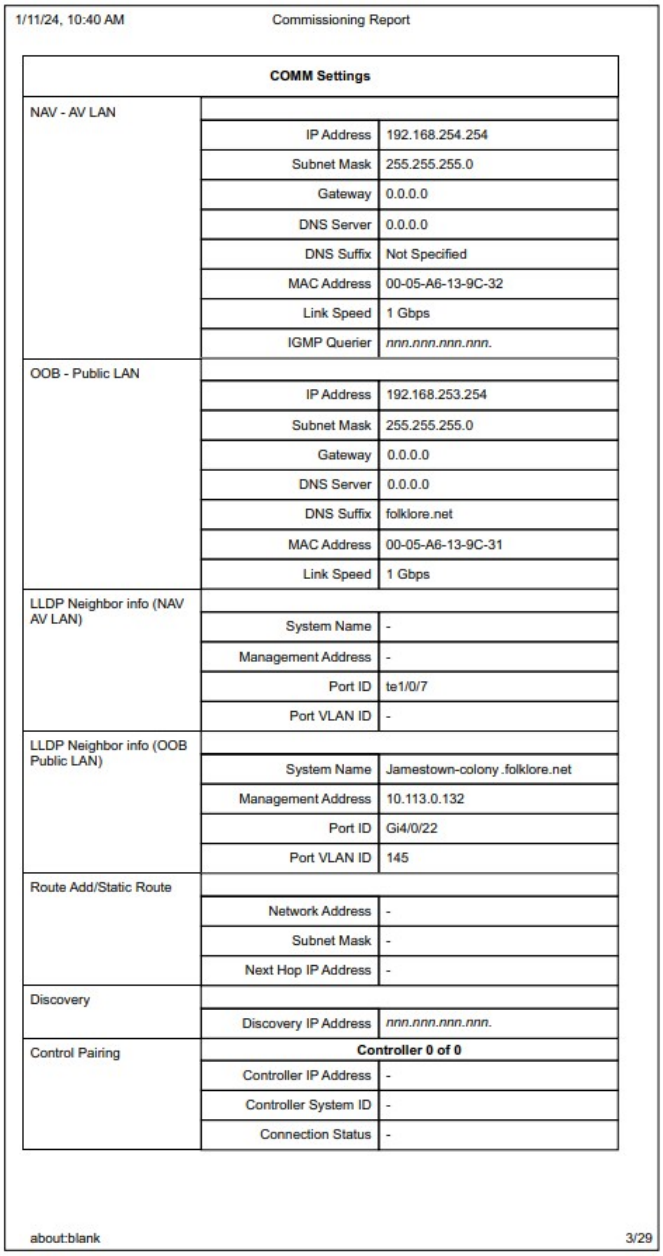
About the Commission Report

This commissioning report is a summary of all the system settings which are part of this NAV System including the NAVigator and all its assigned Endpoints. The settings shown in this commissioning report were the current settings of the connected and powered devices at the time the report was generated.

NAVigator Settings:

General	
Name	NAVigator-13-9C-31
Location	Not Specified
Firmware Version	1.01.0000-b088
Serial Number	A1PC690
Model	NAVigator
Part Number	60-1534-01
Power Source	P/S
Feature Link Licenses	
Model Description	NAV System Manager
Date / Time Settings	
Date	January 11, 2024 9:18 AM
Time	9:18:32 AM
Time Zone	(UTC+00:00)
Use NTP Server	Yes
NTP Servers	time.nist.gov

Page 3



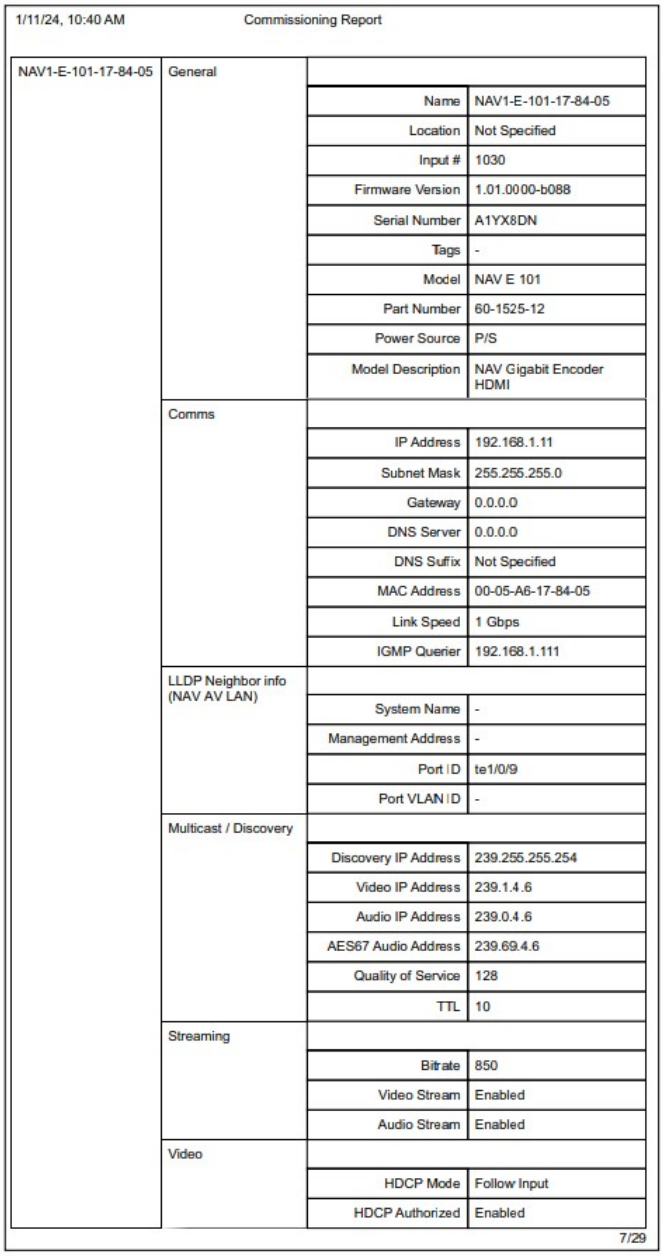
1/11/24, 10:40 AM Commissioning Report

COMM Settings

NAV - AV LAN		
	IP Address	192.168.254.254
	Subnet Mask	255.255.255.0
	Gateway	0.0.0.0
	DNS Server	0.0.0.0
	DNS Suffix	Not Specified
	MAC Address	00-05-A6-13-9C-32
	Link Speed	1 Gbps
	IGMP Querier	nnn.nnn.nnn.nnn.
OOB - Public LAN		
	IP Address	192.168.253.254
	Subnet Mask	255.255.255.0
	Gateway	0.0.0.0
	DNS Server	0.0.0.0
	DNS Suffix	folklore.net
	MAC Address	00-05-A6-13-9C-31
	Link Speed	1 Gbps
LLDP Neighbor info (NAV AV LAN)		
	System Name	-
	Management Address	-
	Port ID	te1/0/7
	Port VLAN ID	-
LLDP Neighbor info (OOB Public LAN)		
	System Name	Jamestown-colony .folklore.net
	Management Address	10.113.0.132
	Port ID	Gi4/0/22
	Port VLAN ID	145
Route Add/Static Route		
	Network Address	-
	Subnet Mask	-
	Next Hop IP Address	-
Discovery		
	Discovery IP Address	nnn.nnn.nnn.nnn.
Control Pairing	**Controller 0 of 0**	
	Controller IP Address	-
	Controller System ID	-
	Connection Status	-

about:blank 3/29

Page 4



1/11/24, 10:40 AM Commissioning Report

NAV1-E-101-17-84-05	General		
		Name	NAV1-E-101-17-84-05
		Location	Not Specified
		Input #	1030
		Firmware Version	1.01.0000-b088
		Serial Number	A1YX8DN
		Tags	-
		Model	NAV E 101
		Part Number	60-1525-12
		Power Source	P/S
		Model Description	NAV Gigabit Encoder HDMI
	Comms		
		IP Address	192.168.1.11
		Subnet Mask	255.255.255.0
		Gateway	0.0.0.0
		DNS Server	0.0.0.0
		DNS Suffix	Not Specified
		MAC Address	00-05-A6-17-84-05
		Link Speed	1 Gbps
		IGMP Querier	192.168.1.111
	LLDP Neighbor info (NAV AV LAN)		
		System Name	-
		Management Address	-
		Port ID	te1/0/9
		Port VLAN ID	-
	Multicast / Discovery		
		Discovery IP Address	239.255.255.254
		Video IP Address	239.1.4.6
		Audio IP Address	239.0.4.6
		AES67 Audio Address	239.69.4.6
		Quality of Service	128
		TTL	10
	Streaming		
		Bitrate	850
		Video Stream	Enabled
		Audio Stream	Enabled
	Video		
		HDCP Mode	Follow Input
		HDCP Authorized	Enabled

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Page 7

Figure 26. Random sample of printed pages

Monitoring Page

The Monitoring page shows system status information. To access the Monitoring page, click MONITORING (see figure 27, **1**). The Monitoring page opens. See Monitoring Page on page 109 for a detailed description of the monitored functions.

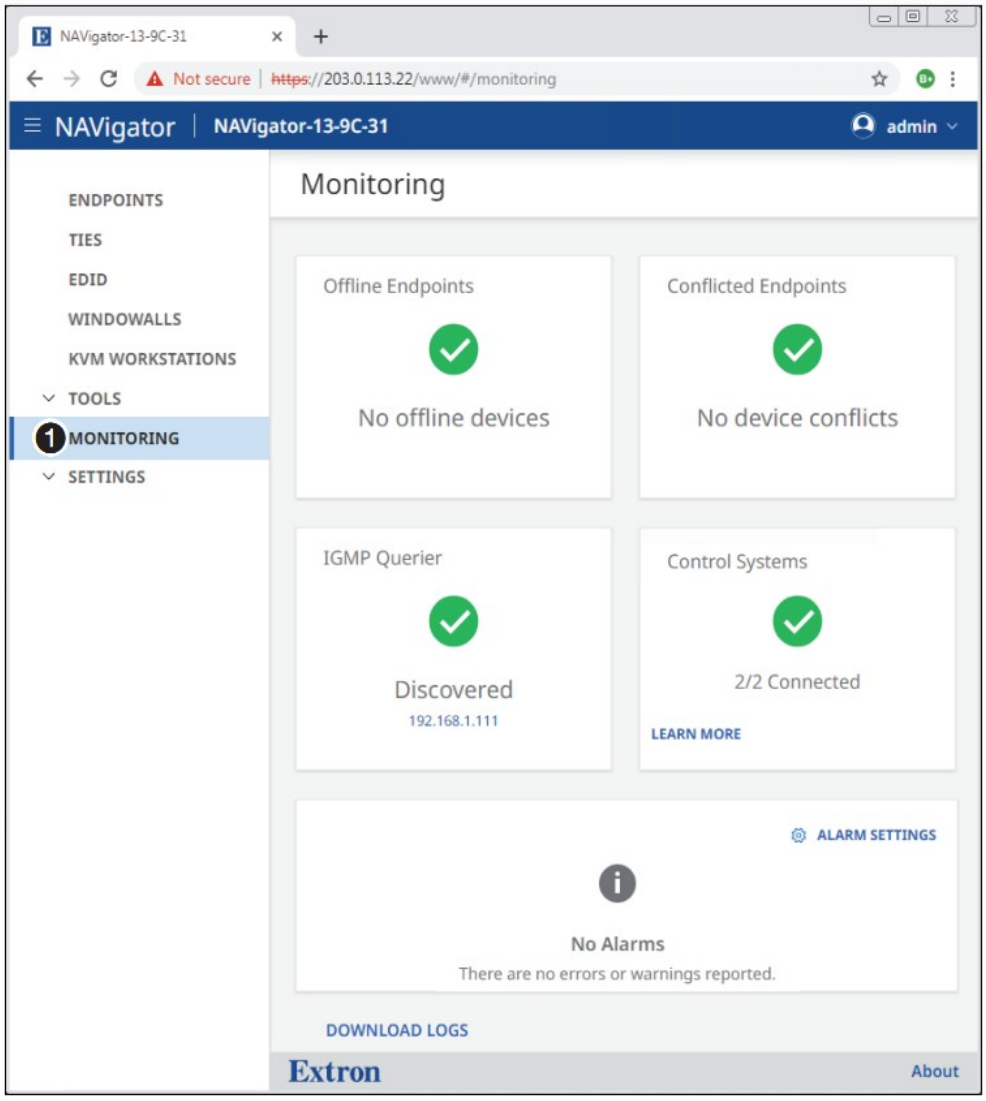
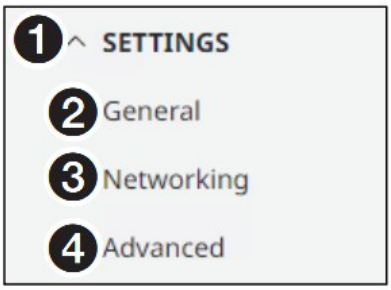


Figure 27. Monitoring Page

Settings Page

The Settings pages provide access to many NAVigator settings grouped as General, Networking, and Advanced. To access the Settings pages, if necessary, click the Menu link (see figure 9, 1 on page 11). Click SETTINGS (see 1 in the illustration at right) and select among General (2), Networking (3), or Advanced (4). The browser displays the Device Settings page with the selected group of settings open (see figure 28, which shows the General group page (1) selected).



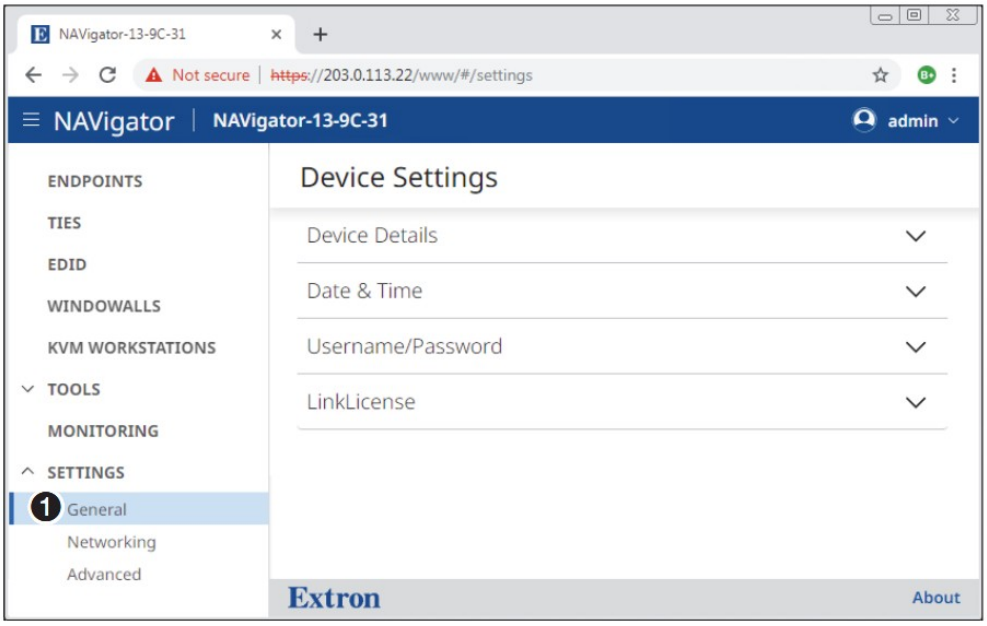


Figure 28. Device Settings Page

General settings are listed in figure 28.
Networking settings are:

- Network Connection
- Ports

Advanced settings are:

- Advanced networking
- LLDP

Using Network Connection is described as part of the procedure to create a NAV system (see Creating a NAV System on page 28).
Using all other selections is described in Settings Pages on page 115.

Creating a NAV System
Connection to the NAVigator can be done via the embedded HTML pages. Creating a NAV system using the NAVigator and its embedded HTML pages is a seven-part process:

1. Connect to the NAVigator via the embedded HTML pages (see Opening the Embedded HTML Pages on page 9).
2. View and change NAVigator network settings as necessary (see Network Connection Settings on page 29).
3. Discover and assign endpoints to the NAV system (see Discover and Assign Encoders and Decoders on page 31).
4. View and change endpoint network settings as necessary (see Configure Selected endpoint communication settings on page 33).
5. Configure the AV sources, displays, and other equipment. Once endpoint communication are established, validate input/output signals via the Device Details pane of the endpoints.
6. Create and validate ties between the endpoints (see Create NAV Ties on page 35).
7. Construct a control system using either Global Configurator or Global Scripter (see Control System on page 128

Network Connection Settings
View and change connection settings as follows:

1. Obtain proper network connection values from the local system administrator.
2. If necessary, click the Menu icon (see figure 29, 1) to toggle the links pane (2) on.

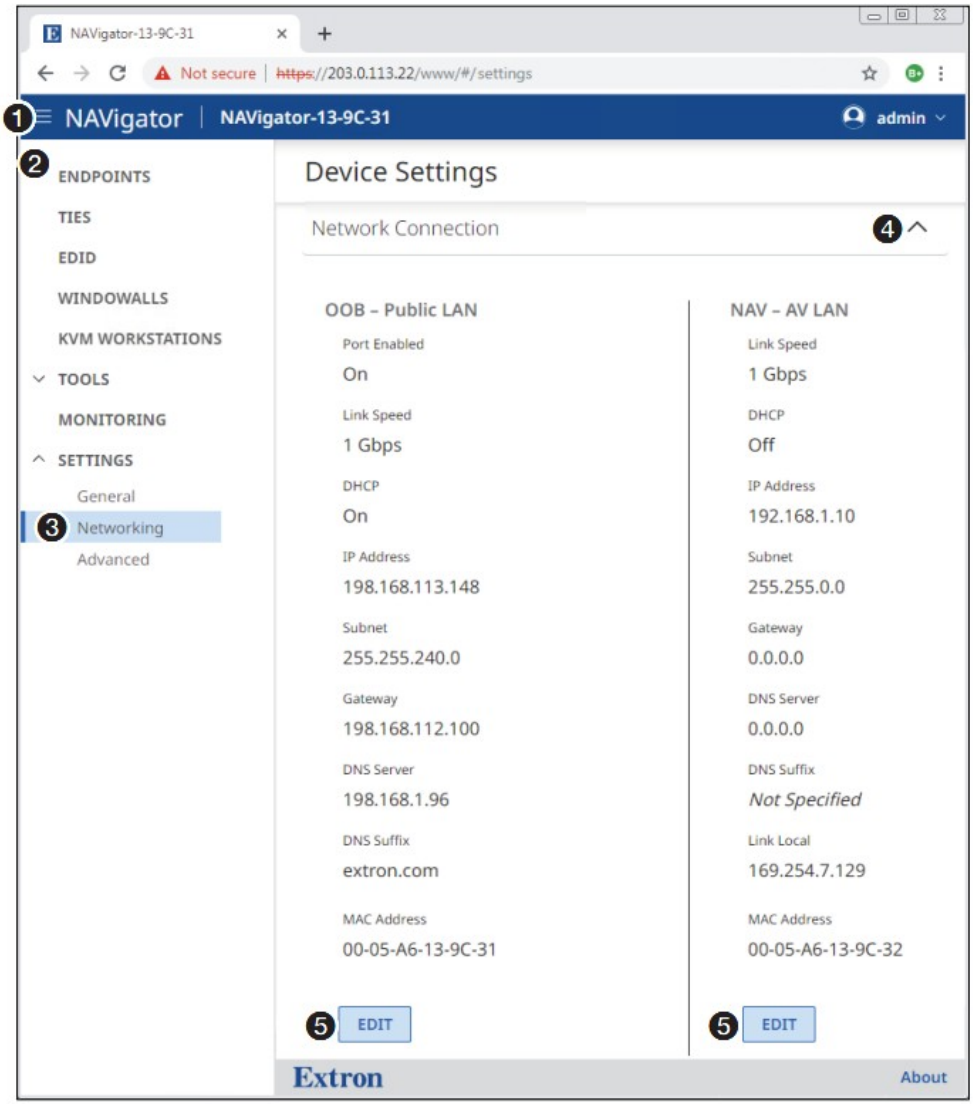


Figure 29. Network Connection Page

3. Click SETTINGS > Networking (3). The Device Settings page opens.
4. Click Network Connections (4). The Network Connections drop-down list opens, showing protected views of the network connection settings.
5. Examine the network connection settings, comparing them against the values provided by the local system administrator. If all values are correct, proceed to Discover and Assign Encoders and Decoders on page 31.
6. To change the settings, click the appropriate (OOB – Public LAN or NAV – AV LAN) EDIT button (see figure 29, 5 on page 29) . The EDIT button changes to SAVE (see figure 30, 1) and the variable fields become available for editing.

   NOTE: The IP Address, Subnet, Gateway, DNS Server, and DNS Suffix fields are unavailable for editing when DHCP is on.

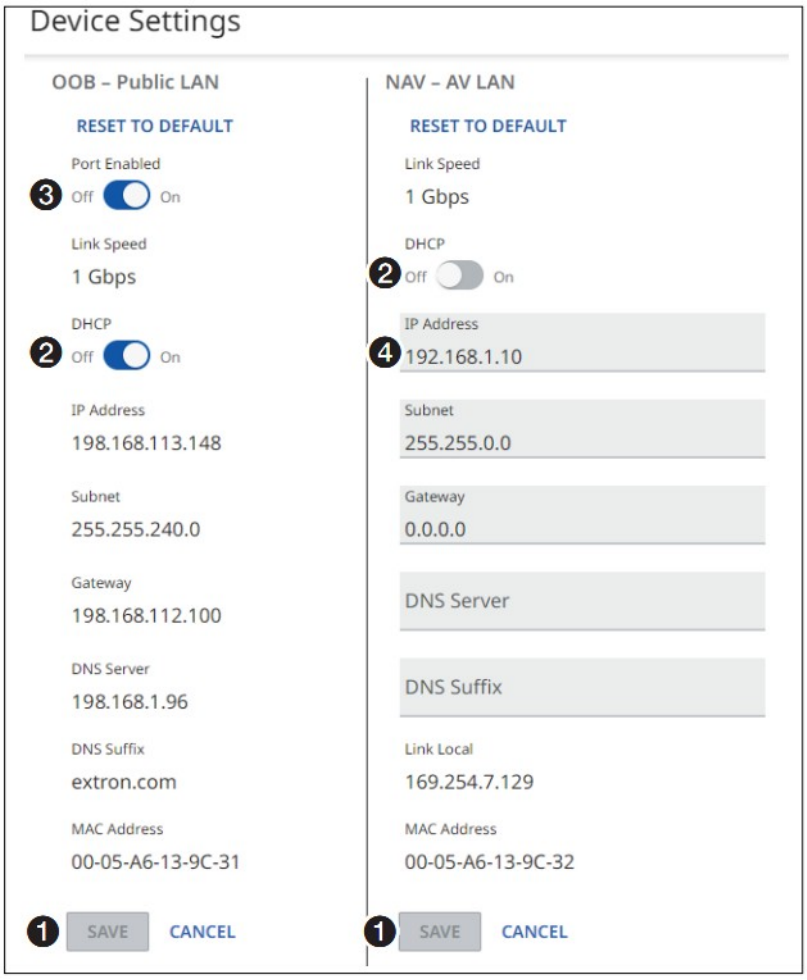


Figure 30. Device Settings Pane

7. If desired, click the DHCP switch (2) to toggle Dynamic Host Configuration Protocol on and off.
8. If desired, click the Port Enabled switch (3, OOB – Public LAN port only) to toggle the enable on and off.
9. If desired, click in the desired editable field (4) and edit it as desired.
10. Repeat step 9 as necessary for other values.
11. Click SAVE (1).

NOTE: If you change the settings of either port, you will lose communications momentarily while the NAVigator and endpoints self-reconfigure. This is normal.

Discover and Assign Encoders and Decoders

Discover and assign encoders and decoders (endpoints) to the NAV system as follows:

1. If necessary, click the Menu icon (see figure 31, 1).

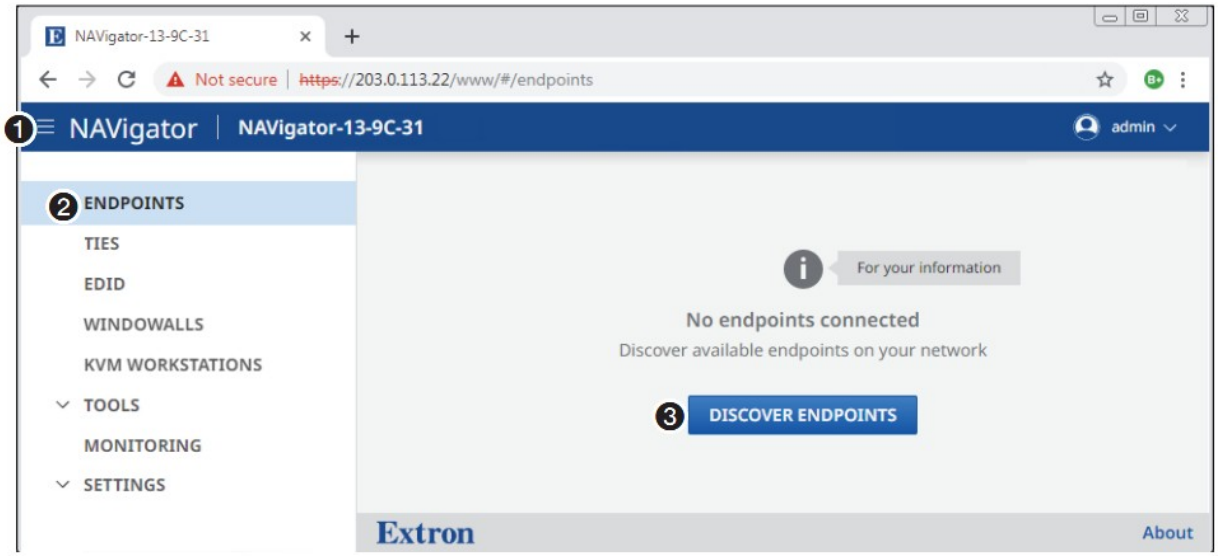


Figure 31. Discover Endpoints

2. Click ENDPOINTS (2).
3. Click DISCOVER ENDPOINTS (3). The Assign Endpoints page opens (see figure 33 on page 32).

   NOTE: If you are adding to an existing set of assigned endpoints, at this point the endpoints page shows the existing endpoints and you click the DISCOVER link instead (see figure 32, 1).

Figure 32. Appearance of Endpoints Page when Adding to Existing Endpoints

Continue the discovery and assignment process as described in steps 4 and 5 on page 32.

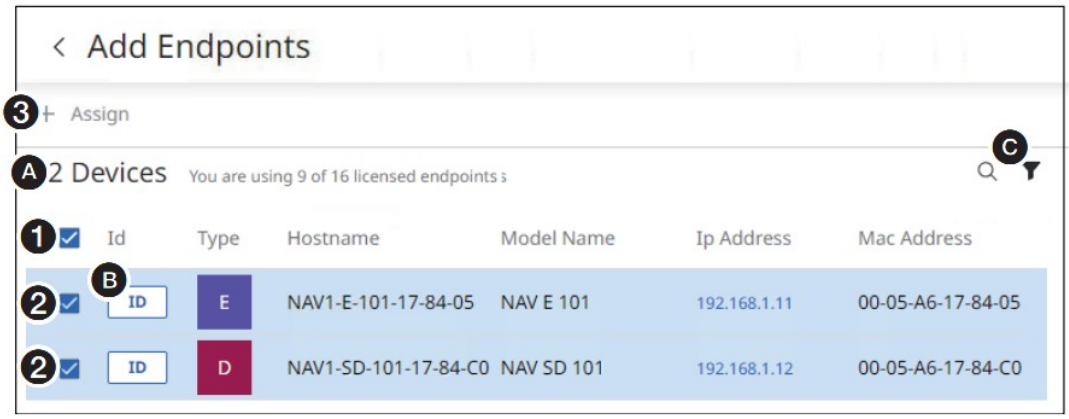


Figure 33. Assign Endpoints

NOTES:

• A banner advises you of how many endpoints you are using and how many for which you are licensed (see figure 33, **A**).

• The NAVigator, by default, is licensed for 16 endpoints.

• Additional endpoints, up to 240, are available via LinkLicense; contact the Extron S3 Sales and Technical Support Hotline (see www.extron.com for the phone number in your region of the world). See LinkLicense Page on page 121 to install the license.

• When you assign an endpoint to the NAVigator, the endpoint automatically assumes the password of the

NAVigator.

TIPS:

• Use the ID function to help identify an endpoint as follows:

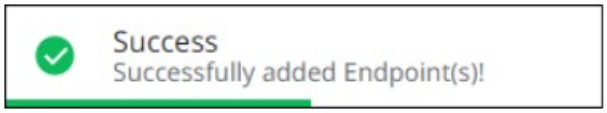
• Press and release the device ID button on the front panel of an endpoint to highlight the ID field on the HTML page for that endpoint (B). Press and release the button again to clear the highlight.

• Click the ID field (B) on the HTML page to toggle the front panel ID LED on the endpoint on and off.

• Tailor the list to more easily find specific endpoints as follows:

• Click the Filter (▼) drop-down list (C) to show only endpoints by specific criteria (if created).

4. Click the All checkbox (1) or individual endpoint checkboxes (2).
5. Click Assign (3). The NAVigator assigns the endpoints and reports success on the endpoints page.



NOTE: Once an endpoint is assigned, it can no longer be discovered by other NAVigators.

Configure Selected Endpoint Communication Settings

NOTE: This section configures selected endpoint settings using bulk configuration (the most convenient approach). See Endpoints page on page 37 for detailed descriptions of configuring all endpoint settings. Configure selected endpoint settings in bulk (all at once) as follows:

1. If necessary, click the Menu icon (see figure 34, 1).

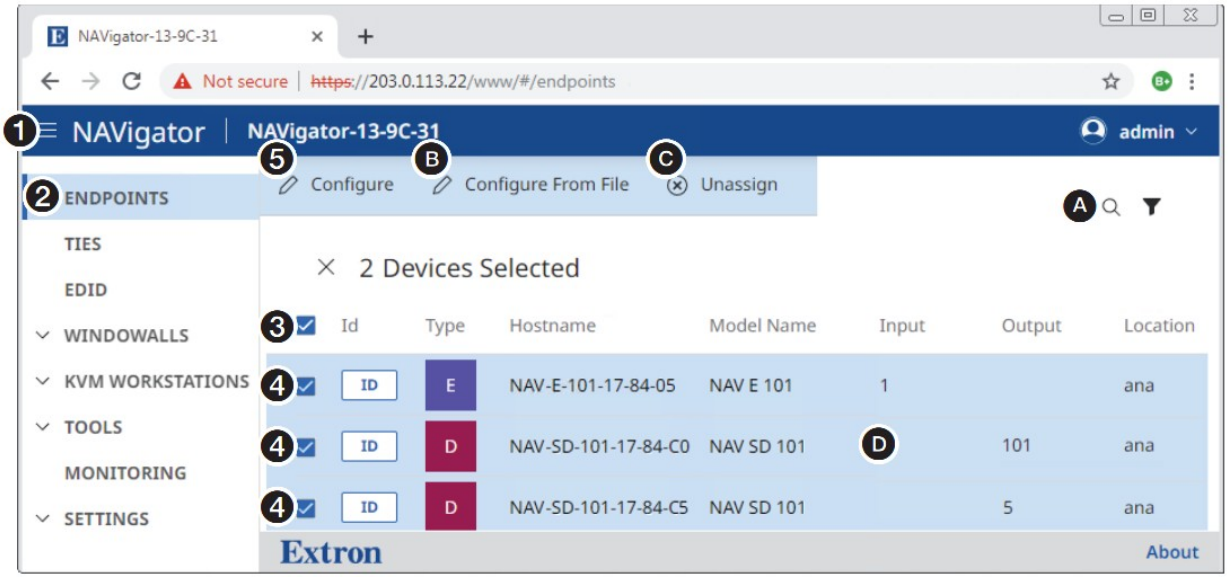


Figure 34. Selecting Configure

2. If necessary, click ENDPOINTS (2). The Endpoints page opens.

TIPS: Find specific endpoints more easily as follows:

• Use the ID button and Filter and Sort drop-down lists as described in the TIPS on page 32.

• Click in the Search field (**A**) and enter a few characters to show endpoints whose name or I/O number contain those characters.

3. Click the All checkbox (3) or individual endpoint checkboxes (4).
4. Click Configure (5). The Configure Endpoints page opens (see figure 35 and figure 36, both on page 34).

TIPS:

• Configure from File (B) is used for cloning or replacing an endpoint. A system backup file (see Backing up the system on page 96) is the file from which the endpoint is configured.

• Click Unassign (C) to unassign an endpoint from the NAVigator.

5. Click the GENERAL link (see figure 35, 1) or the NETWORK link (see figure 36, 1) as necessary to make the desired changes to the settings shown on the figures.
6. Click in one or more fields to be edited and make changes as necessary (see figure 35, 2 and figure 36, 2).

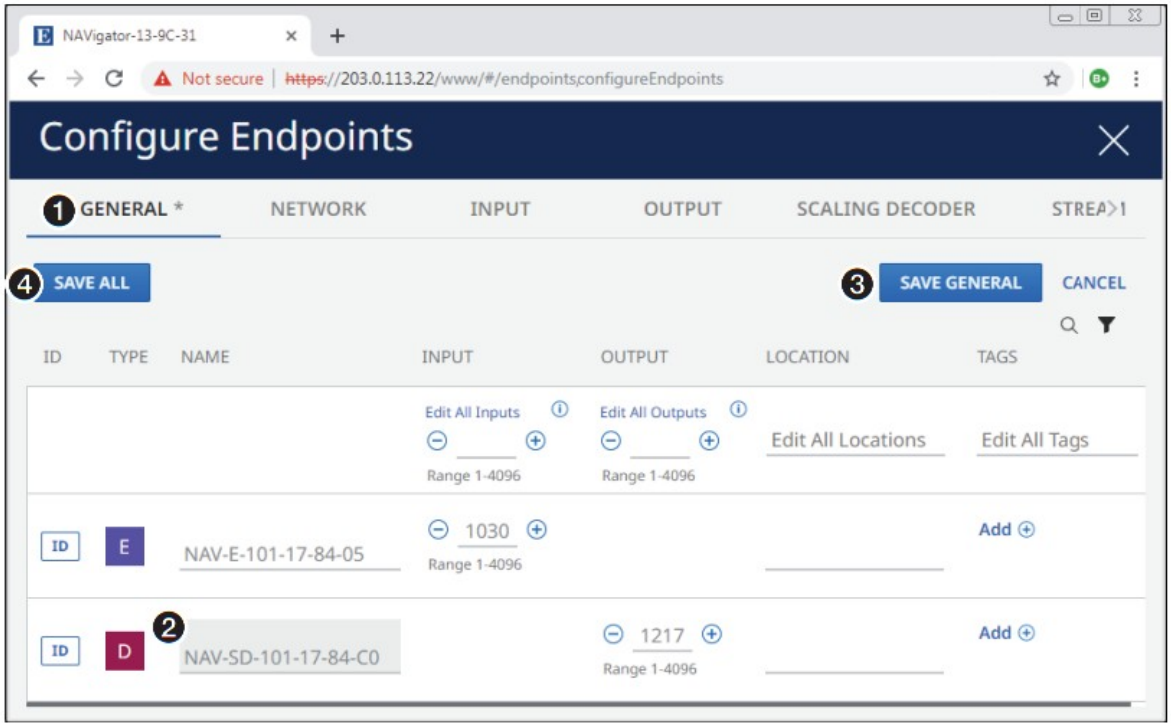


Figure 35. Configure Endpoints > General

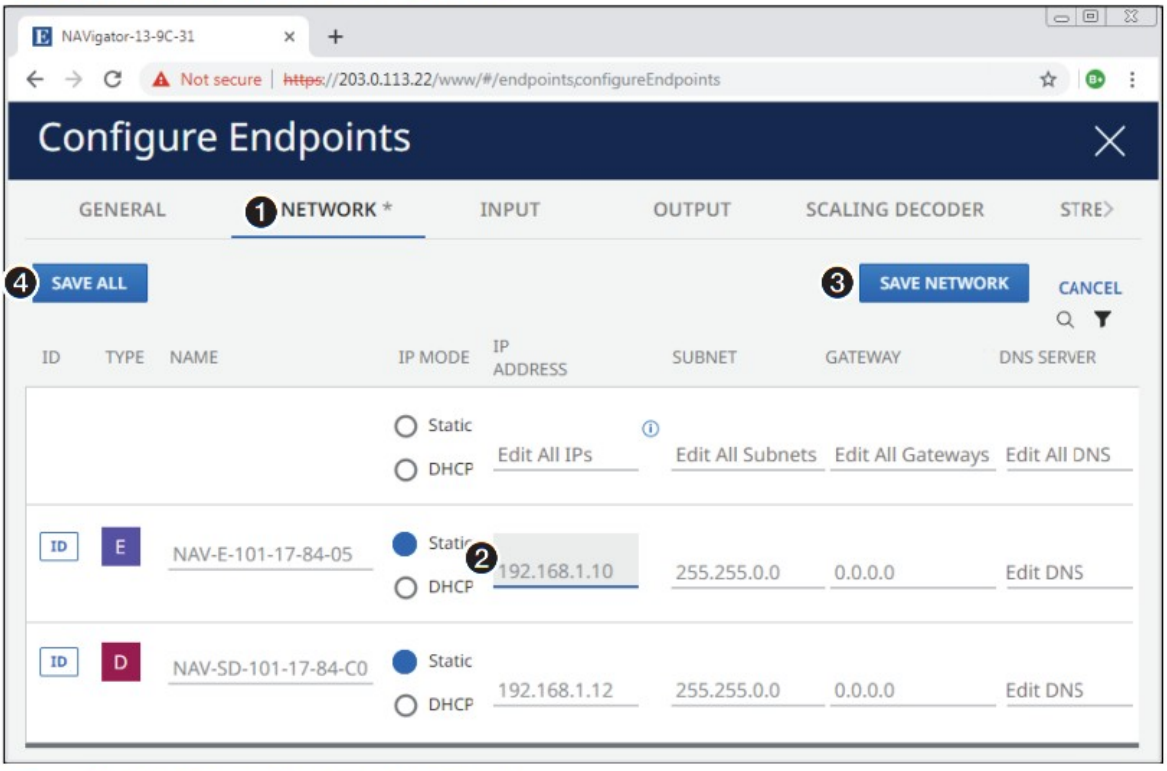


Figure 36. Configure Endpoints > Network

7. Click SAVE (3) or SAVE ALL (4) on either figure.

TIP:
Open the page of an endpoint for configuration (see Device Details, confidence preview, and proxy connections on page 59), as follows:

1. Click in the field for the connected endpoint (see figure 34, **D** on page 33). The HTML page opens a Device

Details pane at the right of the page.

2. Click the IP Address (1, at right). The HTML page opens a new tab in the browser that is connected to the endpoint.

Create NAV Ties

Create or change a tie in the NAV system as follows:

NOTE: You can also pair encoders and decoders to each other using the endpoint ID buttons (see the applicable endpoint guides available at www.extron.com).

1. If necessary, click the Menu icon (see figure 37, 1).
2. If necessary, click TIES (2). The page displays a grid of inputs and outputs.

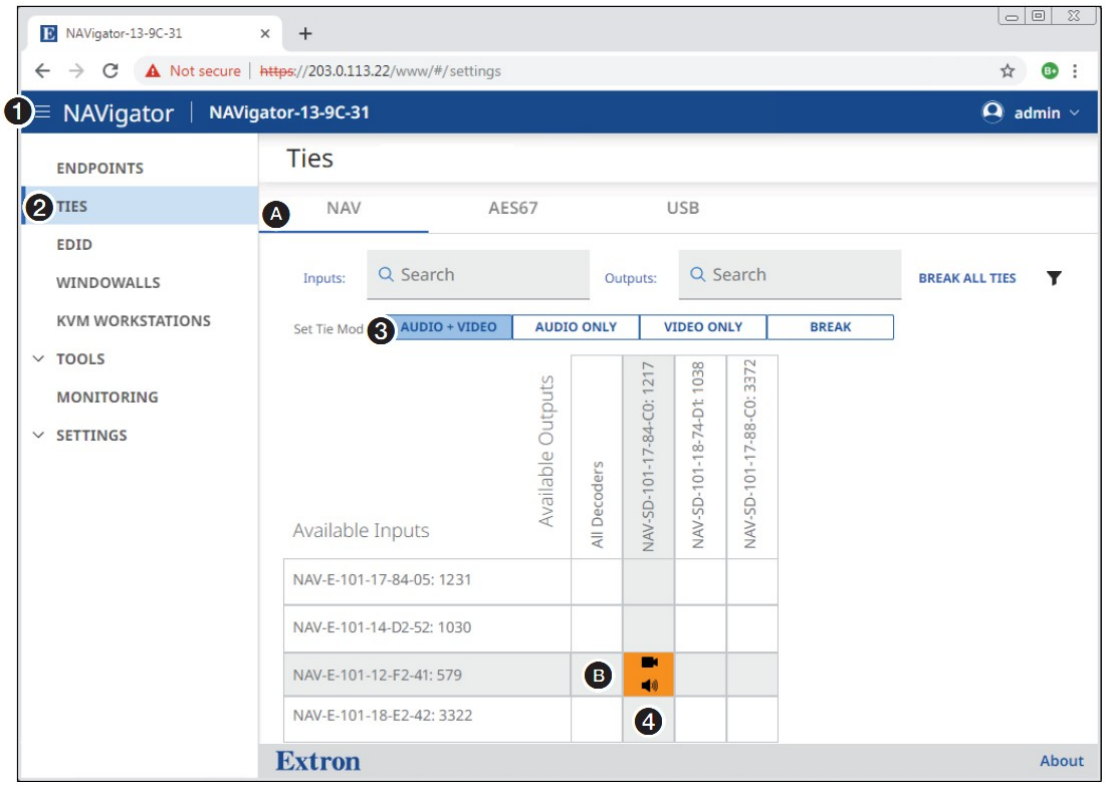


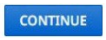
Figure 37. Create NAV Ties

TIP: Use the browser zoom feature to see more devices in the ties grid.

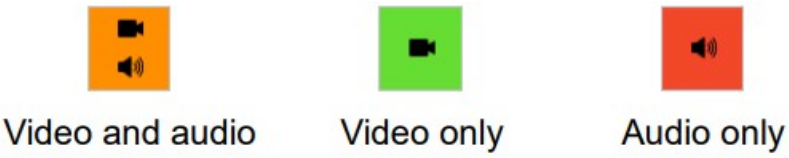
3. Click to select the Set Tie Mode (Audio + Video, Audio Only, or Video Only (**3**).
4. Click within the grid of inputs and outputs to tie the desired input to the desired decoder (or all decoders) (see figure 37, 4 on page 35). Click in an existing tie to untie it.

   TIP: Click in an All Decoders column (B) to tie an input to all outputs.

   NOTE: In the figure 37 example, Audio + Video from input NAV-E-101-12-F2-41 is tied to NAV-SD-101-17-84-CO (all outputs).

5. If the Create Ties page asks you to confirm the change, click CONTINUE. 

   Ties are displayed as follows:



Detailed Descriptions and Operations

Endpoints Page

Besides the startup tasks of discovering and assigning endpoints to the NAVigator, the Endpoints pane has tools for “bulk” configuring one or multiple endpoints from the NAVigator. These tools are a more efficient way to manage your system than making changes to individual endpoints, either through their HTML pages directly (see the associated endpoint user guide) or proxied through the NAVigator (see Device Details pane, confidence preview, and proxy connections on page 59).

Access the bulk configuration tools as follows:

1. If necessary, click the Menu icon (see figure 38, 1).

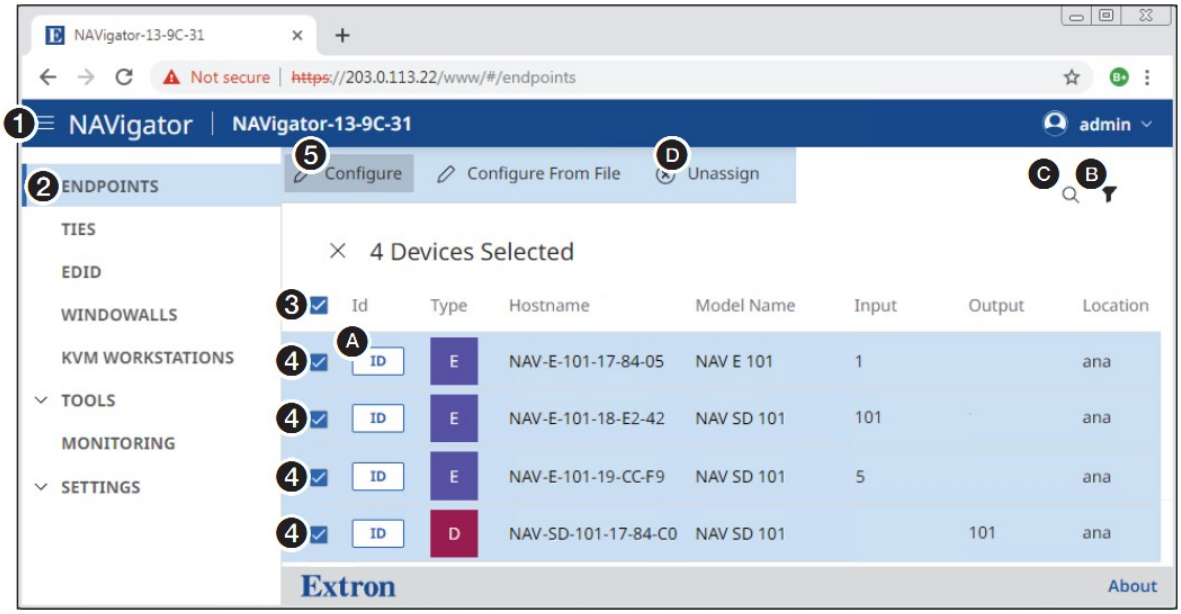


Figure 38. Accessing Bulk Configuration Tools

2. If necessary, click ENDPOINTS (2). The Endpoints page opens.
3. Click the All checkbox (3) or individual endpoint checkboxes (4).
4. Click Configure (5). The Configure Endpoints tools opento the GENERAL tab (see the table on page 38 and figure 39 on page 39).

NOTES:

- When you make changes on a tab, two buttons become available:
  - The SAVE button for that page (such as 

 for the GENERAL tab).
  - The SAVE ALL button (

).
- You can make changes on multiple panes and then save them all by clicking 

.
- You can sort each column by clicking the header row, for example NAME ↑ or INPUT ↓.

TIPS: Find specific endpoints more easily as follows:

TIPS: Find specific endpoints more easily as follows:

- Use the ID button (A) and Filter (B) as described in the **TIPS** on page 32.
- Click in the Search field (C) and enter a few characters to show endpoints whose name or I/O number contain those characters.
- Click Unassign (D) to unassign an endpoint from the NAVigator.

Tab	Configurable function	See:
General	Name	Add and edit names, tags, locations on page 40
	Input and output number	Edit input and output numbers on page 42
	Location	Add and edit names, tags, locations
	Tags	Add and edit names, tags, locations
	Confidence Preview	Enable or disable Confidence Preview on page 43
Network	Communication Settings	Configure endpoint communication settings on page 45
Input	HDCP authorized	Configure input settings on page 46
	AES67 Input Enable	Configure input settings
	AES67 Source selection	Configure input settings
	Audio format	Configure input settings
Output	Video output	Configure output AV settings on page 48
	Allow audio only	Configure output AV settings
	AES67 Output Enable	Configure the streaming settings on page 53
	AES67 Audio Address	Configure the streaming settings
	HDCP mode	Configure output HDCP settings on page 50
	HDCP notification	Configure output HDCP settings
	Test pattern	Output a test pattern on page 51
Scaling Decoder	Output resolution	Configure the scaler on page 52
	Output rate	Configure the scaler
	Aspect ratio	Configure the scaler
	Auto memory	Configure the scaler
Stream	Bit rate (Mbps)	Configure the streaming settings
	Audio mode	Configure the streaming settings
USB (applicable endpoints only)	USB port settings	Configure the USB settings on page 55
OSD	On-screen display	Configure the OSD on page 56
	Screen saver	Configure the screen saver on page 57

GENERAL tab

When the Configure Endpoints tools are opened, they open to the GENERAL page (see figure 39).

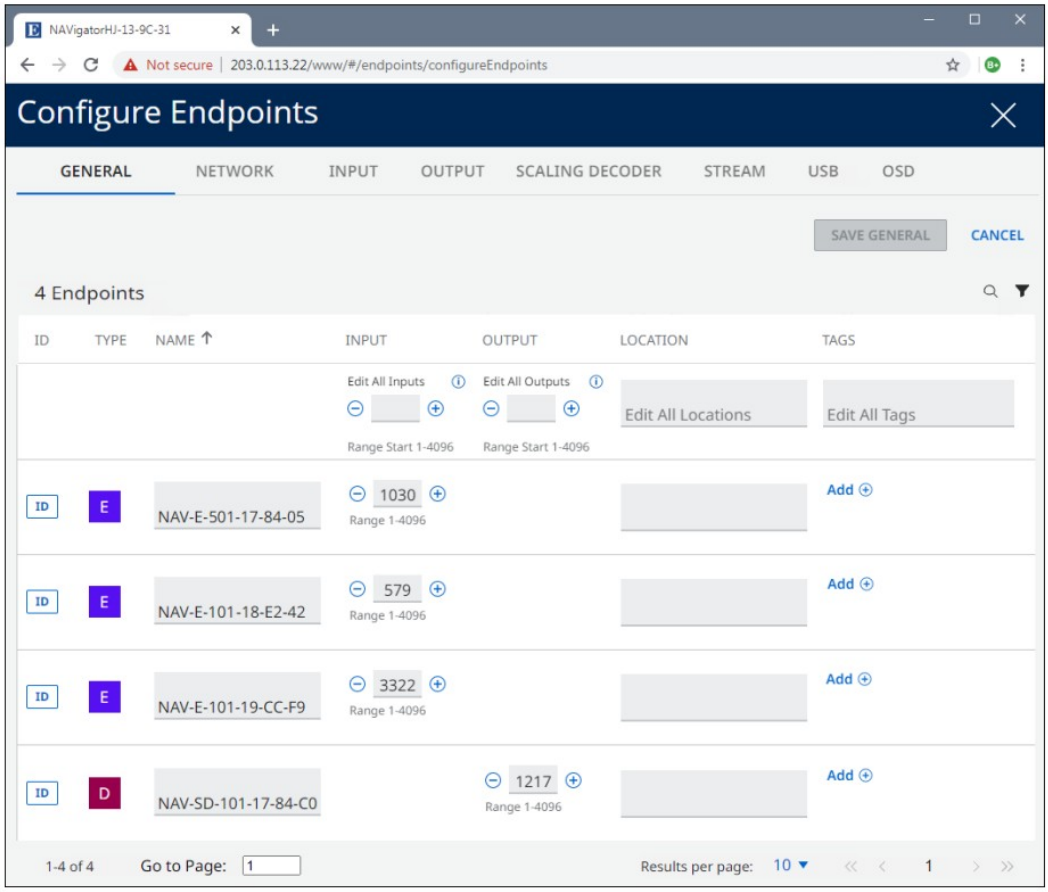


Figure 39. Endpoints Page, Configure Tools — General Tab

NOTE: The procedures that follow assume that you already have the GENERAL tab displayed on the Configure Endpoints tools (see the procedure on page 37).

Add and edit names, tags, and locations

You can add a tag to discovered endpoints that are part of a particular usage set. Tags simplify finding specific endpoints and managing ties. You can add tags to assigned endpoints, and rename endpoints as desired. You can also associate each endpoint to the location where it is installed.

TIP: As an example using these features, you can tag all of the encoders associated with one presenter and one location so that you can limit encoders to that user and room when making ties.
NOTE: See the NOTES on page 41 for detailed valid character usage rules to ensure your entries are valid.

Add and edit tags, names, and locations as follows:

1. If necessary, click and drag the horizontal scroll bar to the right (see figure 40, 1) to reveal the Location and Tags fields.

   NOTE: The Name field is locked in position and does not move.

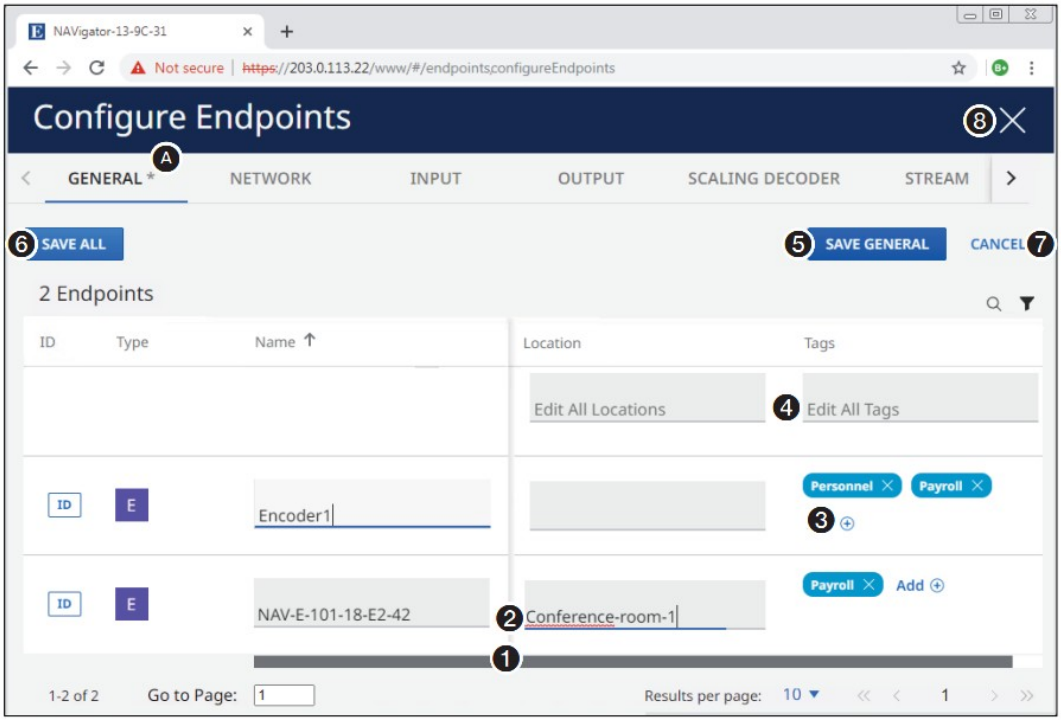


Figure 40. Add and edit names, tags, and locations

2. To edit a Name or Location, click in the appropriate field and make changes as necessary (2).

   NOTE: Name and Location can also be edited from the SETTINGS > Device Settings page (see Device Details page on page 116).

3. Click anywhere outside the edited field.
4. To create a tag for an individual assigned endpoint, click Add ⊕ (3). An editable field opens (see figure 41 on page 41.

Figure 41. Creating a Tag

5. Click in the Tags field and make changes as necessary (see figure 41, 1). When you click anywhere outside the tag field, the tag appears (Personnel ⊗).
6. To create a tag for all endpoints, click in the Edit All Tags field and make changes as necessary (see figure 40, **4** on page 40).

   When you click anywhere outside the Edit All Tags field, the Add ⊕ and Remove ⊖ buttons appear (shown at right).

7. Click Add ⊕ The tag appears for each endpoint (Payroll ⊗).

   NOTES:

   • Created tags cannot be edited.

   • Delete a tag by clicking the ⊗.

   • An endpoint can have a maximum of 10 tags.

8. Click anywhere outside the edited field or fields. The SAVE buttons become available.

   TIP: An asterisk (A) appears in the tab to indicate that there are unsaved changes.

9. Click SAVE GENERAL (5) or SAVE ALL (6) to save the changes or CANCEL (7) to abandon them.
10. Click X (8) to close the Configuration Endpoints page or select a different tab or perform other operations to

change other settings.

See the following NOTES for the text rules that apply to tags, names, and locations.

NOTES:

- Special characters, stated as invalid in the table below, are as follows:

  ! ~ ` @ # $ % ^ & * ( ) _ + = { } [ ] |\ : ; “ ‘ < > , . ? and / .

  A hyphen (-) is not a special character.
- Tags, names, and locations each have a 63-character limit.

Tag Rules	Name Rules	
● Cannot contain special characters. ● Cannot begin or end with a hyphen. ● Cannot begin with a space. ● Spaces are allowed after the first character. ● Multiple tags are allowed, making filtering and sorting searchi ng easier.	• Must begin with a letter. • Cannot contain special characters. • Cannot end with a hyphen. • Spaces are not allowed.	• Must begin • Cannot con • Cannot end • Hyphens ar n. • Cannot beg • Spaces are er.

Edit input and output numbers

By default, input and output numbers are assigned by the endpoints. Being generated by an algorithm, the numbers appear random. If desired, change them as follows:

1. Click in the desired Input or Output field (see figure 42, 1) and edit it as desired or click ⊕ or ⊖ to increment or decrement the field value. The valid range is from 1 to 4096.

   NOTE: Each input requires a unique number and each output requires a unique number.

   TIPS:

   • Extron recommends sequential I/O numbering across the NAV system.

   • If you sequentially number inputs and outputs, the NAV system function is similar to a traditional Extron matrix switcher.

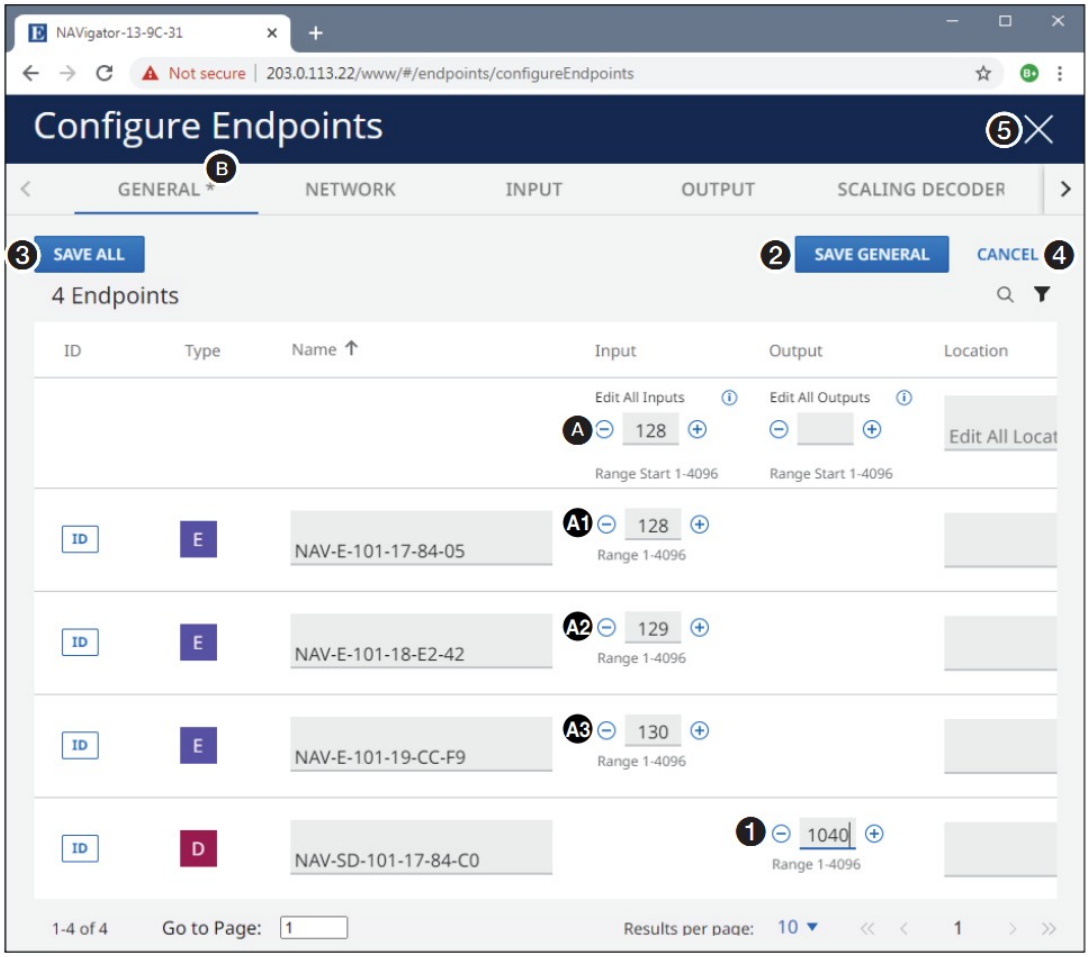


Figure 42. Edit input and output numbers

TIP:

If you enter a value in either the Edit All Inputs or Edit All Outputs field (A), the first endpoint listed below the edited field is changed to that number (A1). Subsequent input or output numbers (A2 and A3) increment as the endpoints are listed from top to bottom.

2. Click anywhere outside the edited field or fields. The SAVE buttons become available.

   TIP: An asterisk (see figure 42, B on page 42) appears in the tab to indicate that there are unsaved changes.
3. Click SAVE GENERAL (2) or SAVE ALL (3) to save the changes or CANCEL (4) to abandon them.
4. Click X (5) to close the Configuration Endpoints page or select a different tab or perform other operations to change other settings.

Enable or disable Confidence Preview

Confidence Preview is a feature that allows you to view the video output of encoders and decoders in a Device Details pane on the HTML page of the NAVigator (see Device Details pane, confidence preview, and proxy connections on page 59). Confidence Preview can also be viewed on the HTML pages of the associated endpoints (see the associated User Guide available at www.extron.com). This feature, enabled by default, helps to remotely validate video output during configuration or debugging. Disable or enable Confidence Preview, as follows:

1. If necessary, click and drag the horizontal scroll bar to the right (see figure 43, 1) to reveal the Confidence Preview field.

   NOTE: The Name field is locked in position and does not move.

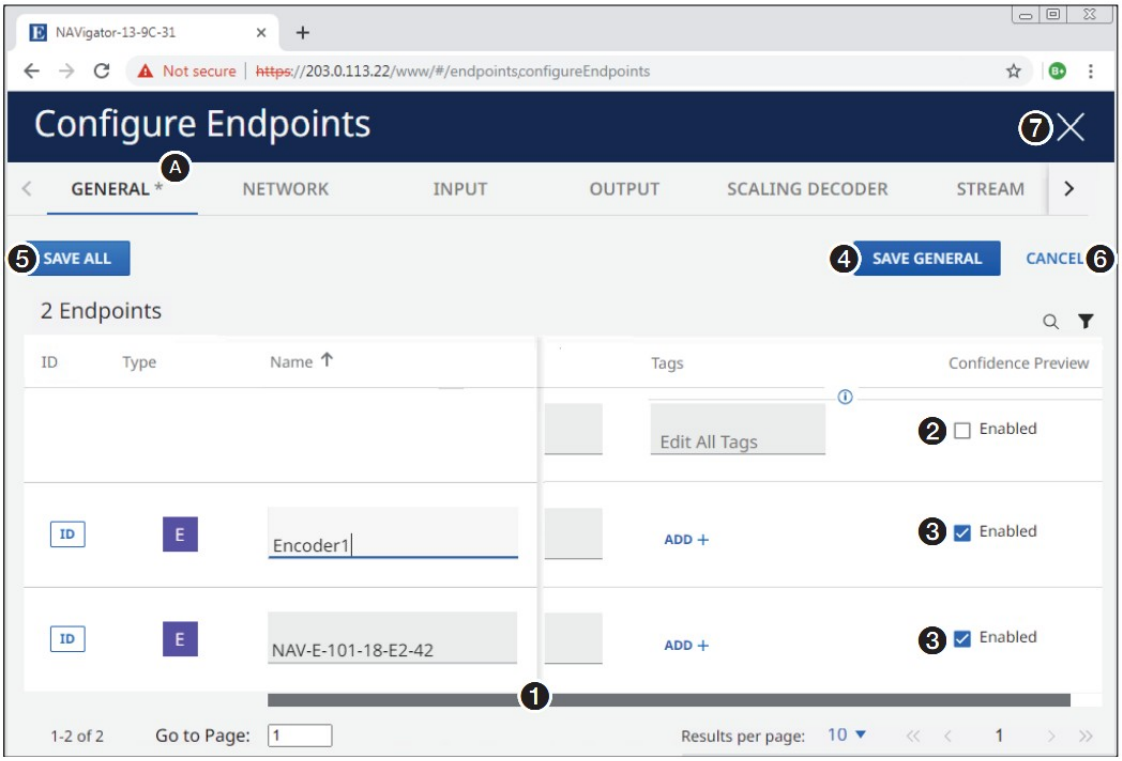


Figure 43. Enable and disable Confidence Preview

2. Click the Confidence Preview checkbox for all endpoins (2) or for one or more individual endpoints (3) to disable or enable Confidence Preview.

   TIP: An asterisk (A) appears in the GENERAL tab to indicate that there are unsaved changes.

3. Click SAVE GENERAL (see figure 43, 4 on page 43) or SAVE ALL (5) to save the changes or CANCEL (6) to abandon them.
4. Click X (7) to close the Configuration Endpoints page or select a different tab or perform other operations to change other settings.

NETWORK tab

NOTE: The Network procedures that follow assume that you already have the GENERAL tab displayed on the Configure Endpoints tools (see the procedure on page 37).

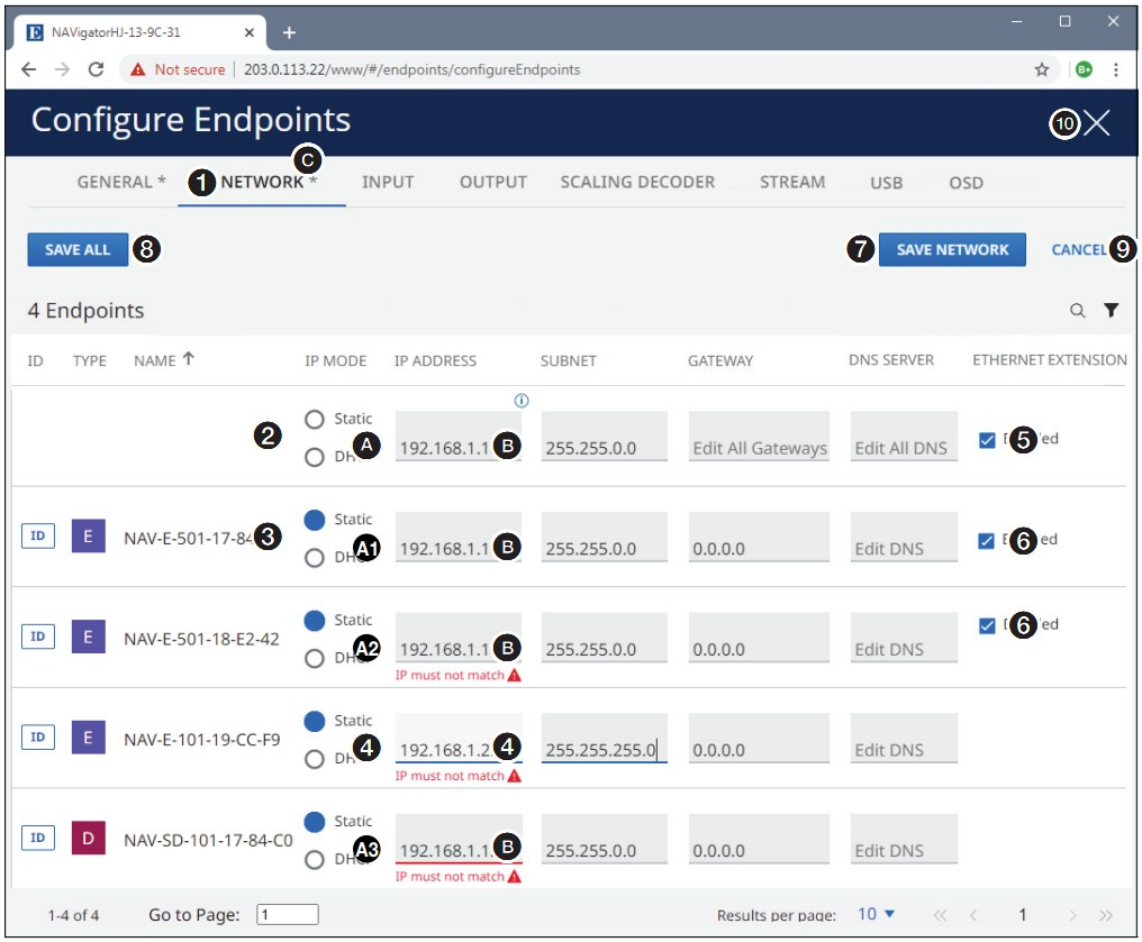


Figure 44. Endpoints Page, Configure Tools — NETWORK Tab

Configure endpoint communication settings

TIP: Adhere to IP addressing best practices and considerations for IP addressing schemes in a larger system.

1. Click the NETWORK tab (see figure 44, 1 on page 45) to make changes to the network settings.
2. If desired, click either the Static or DHCP radio button to choose the desired IP addressing method.
   - You can select either for all inputs (2) or one or more individual endpoints (3).
   - You can select either radio button for all inputs (2) and then change the setting for individual endpoints (3).
   - All of the other settings for an endpoint under this tab are unavailable for selection when that endpoint is selected for DHCP.
3. Click in one or more fields to be edited and make changes as necessary (4).

   TIPS:

   - If you enter a value in the Edit All IP Addresses field (A), the first endpoint listed below the edited field is changed to that number (A1).

   The IP addresses for subsequent endpoints (A2 and A3) increment as the endpoints are listed from top to bottom unless you have also made a change to an individual endpoint (4).

   - If you enter a value in either the Edit All Subnets, Edit All Gateways, or Edit All DNS field (B), all listed endpoints have that value unless you have also made a change to an individual endpoint (4).
4. Click the Ethernet Extension Enabled checkbox for all endpoins (5) or for one or more individual endpoints that support Ethernet Extension (6) to enable and disable Ethenet Extension.
5. Click anywhere outside the edited field or fields. The SAVE buttons become available.

   TIP: After you make any change in steps 2 and 3, an asterisk (C) appears in the tab to indicate that there are unsaved changes.

6. Click SAVE NETWORK (7) or SAVE ALL (8) to save the changes or CANCEL (9) to abandon them.
7. Click X (10) to close the Configuration Endpoints page or select a different tab to change other settings.

INPUT tab

NOTE: The Input procedures that follow assume that you already have the GENERAL tab displayed on the Configure Endpoints tools (see the procedure on page 37).

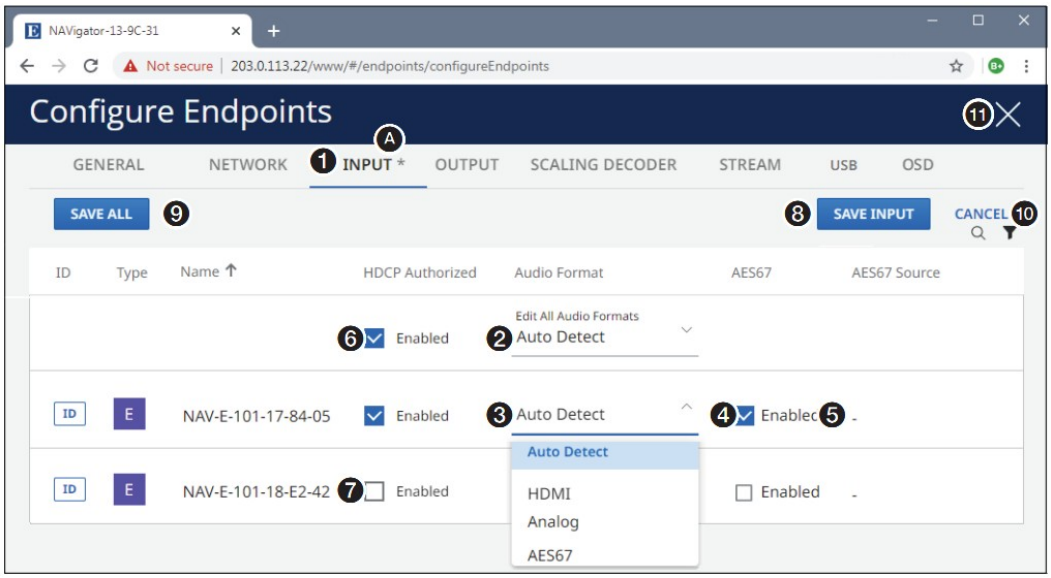


Figure 45. Endpoints Page, Configure Tools — INPUT Tab

Configure input settings

1. Click the INPUT tab (see figure 45, 1) to make changes to the endpoint settings.
2. Click the Audio Format drop-down list for all inputs (2) or for one or more individual endpoints (3) to select between Auto Detect, HDMI, AES67, or Analog (non-wallplate encoders only).
3. If desired, select (click) or deselect the AES67 checkbox for one or more individual endpoints (4) to receive the AES67 audio stream.
4. Click AES67 Source for one or more individual endpoints (5) to select an AES67 audio source to stream (see Operation with AES67 Audio on page 148).
5. If desired, select (click) or deselect the HDCP Authorized checkbox for all inputs (6) or for one or more individual endpoints (7).

   NOTE: When HDCP Authorized is enabled (checked), the encoder informs the connected source that it can accept HDCP signals and is HDCP compliant. When disabled, the encoder informs the connected source that it is not HDCP compliant.

   For sources requiring encryption, enable HDCP Authorized. If HDCP Authorized is disabled for sources requiring encryption (for example, a Blu-ray player), the output is muted or a warning message is displayed.

   Some sources may encrypt their output even if the source material does not require HDCP encryption, preventing content from being displayed on a non-HDCP compliant display. Disable HDCP Authorized to allow the output of the scaler to remain unencrypted.

   TIP: After you make any change in steps 2 through 5, an asterisk (A) appears in the tab to indicate that there are unsaved changes.
6. Click SAVE INPUT (see figure 45, 8 on page 46) or SAVE ALL (9) to save the changes or CANCEL (10) to abandon them.
7. Click X (11) to close the Configuration Endpoints page or select a different tab to change other settings.

OUTPUT tab

NOTE: The Output procedures that follow assume that you already have the GENERAL tab displayed on the Configure Endpoints tools (see the procedure on page 37).

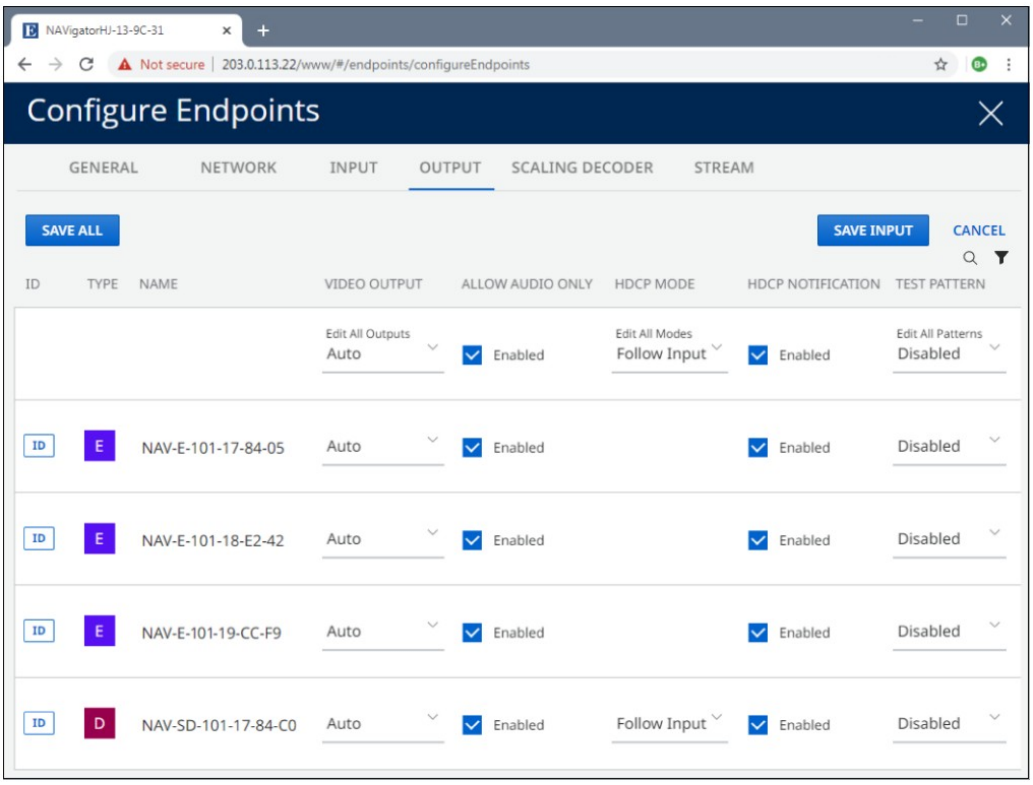


Figure 46. Endpoints Page, Configure Tools — OUTPUT Tab

Configure output video and audio settings

Configure the video and audio output as follows:

1. Click the OUTPUT tab (see figure 47, 1).

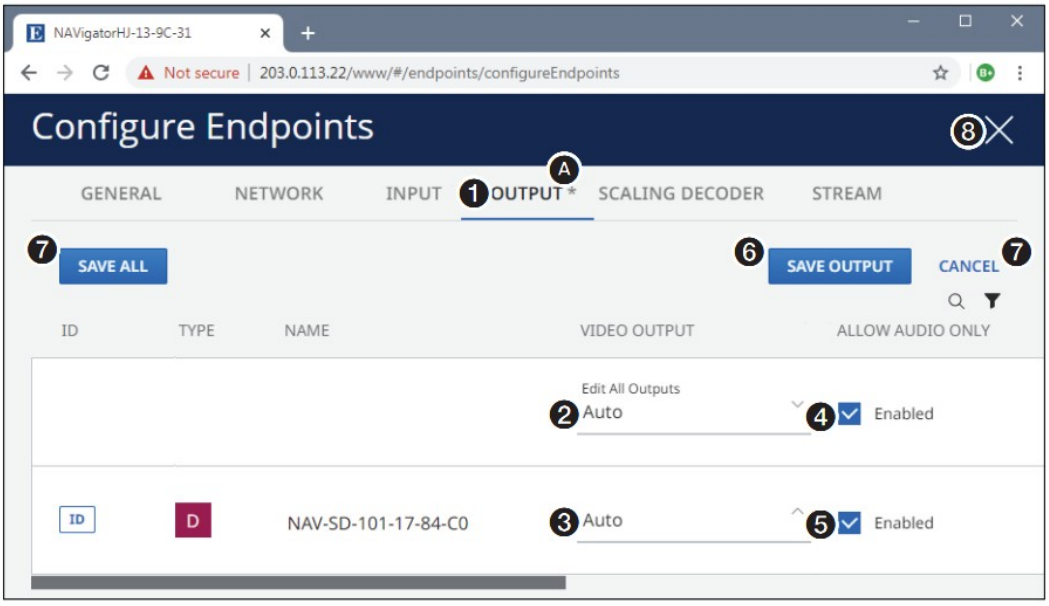


Figure 47. Configure Video and Audio Output Settings

2. Click the Video Output drop-down list for all outputs (2) or for one or more individual endpoints (3) to select among the available video output formats (shown at right). Auto (if selected) follows the input format.

   NOTE: The decoders change their color space, chroma sampling and quantization parameters for compatibility with HDMI and DVI display devices.

3. If desired, select (click) or deselect the Allow Audio Only checkbox for all outputs (4) or for one or more individual endpoints (5).

   NOTE: When Allow Audio Only is enabled (checked), and if an active video input signal is not present in the stream, the decoder sends a black burst signal to the attached display. The black burst prevents the display from goinginto standby state, allowing the display speakers to play audio. When Allow Audio Only is disabled, the display goes into standby state if an active video input signal is not present regardless of whether active audio is. The display shows the screen saver image if it is configured (see Configure the screen saver on page 57).

   TIP: After you make any change in steps 2 and 3, an asterisk (A) appears in the tab to indicate that there are unsaved changes.

4. If necessary, click and drag the horizontal scroll bar (see figure 48, 1) to the right to reveal the AES67 and AES67 Audio Address fields.

   NOTE: The Name field is locked in position and does not move.

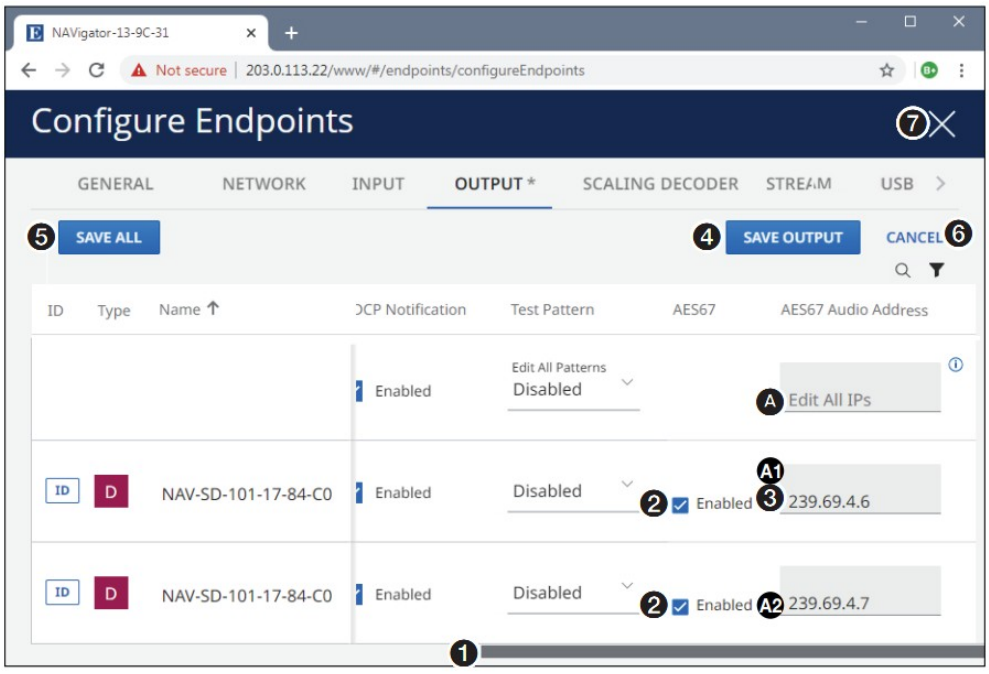


Figure 48. Configure AES67 Audio Output Settings

5. If desired to configure AES67, select (click) or deselect the AES67 checkbox for one or more individual endpoints (2) to enable AES67 audio output.
6. Click Edit all IPs (A) or in the AES67 Audio Addresses fields for one or more individual endpoints (3) and make changes as necessary.

   NOTE: To discover an AES67 device, an AES67-capable device must be streaming AES67 audio and be connected to the same network as the endpoint.

TIP: If you enter a value in the Edit All IPs field (A), the first endpoint listed below the edited field is changed to that number (A1). The IP addresses for subsequent endpoints (A2) increment as the endpoints are listed from top to bottom unless you have also made a change to an individual endpoint (3).

7. Click SAVE OUTPUT (see figure 47, 6 on page 48 or figure 48, 4) or SAVE ALL (7 or 5) to save the changes or CANCEL (8 or 6) to abandon them.
8. Click X (9 or 7) to close the Configuration Endpoints page or select a different tab to change other settings.

Configure output HDCP settings

Configure the output HDCP settings as follows:

1. Click the OUTPUT tab (see figure 49, 1).

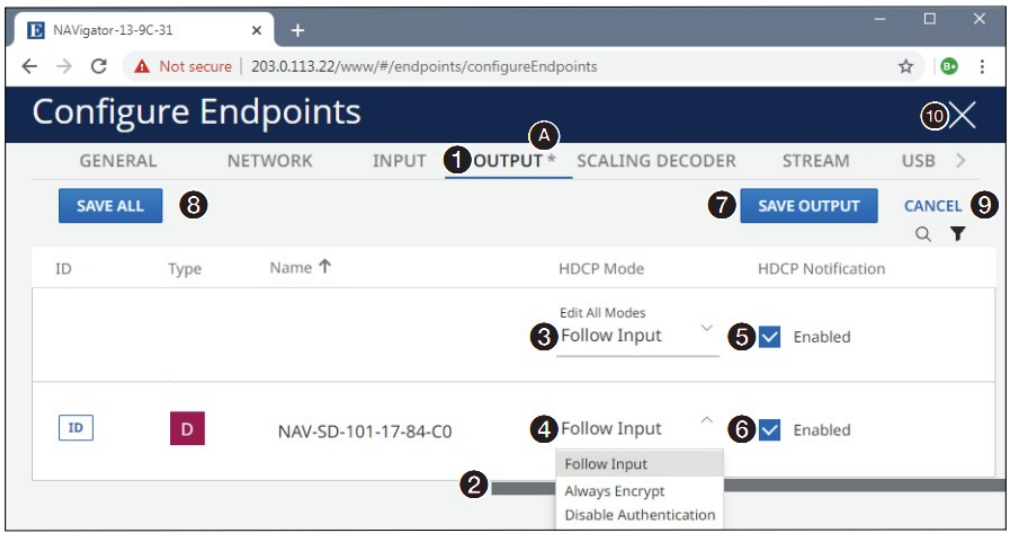


Figure 49. Configure Output HDCP Settings

2. If necessary, drag the horizontal scroll bar (2) to the right to reveal the HDCP fields.

   NOTE: The Name field is locked in position and does not move.
3. If desired, slick the HDCP Mode drop-down list (3) to select between Follow Input, and Always Encrypt, and Disable Authentication for all outputs in the canvas.

   NOTE:

   • Follow Input mimics the HDCP encryption state of the connected source.

   • Alway Encrypt maintains the HDCP encrypted state with the output display device to improve system switching performance.

   • Disable Authentication disables HDCP Authentication and encryption attempts with the connected sink devices, making the display behave as a non-HDCP compliant.
4. If desired, select (click) or deselect the HDCP Notification checkbox for all outputs (5) or for one or more individual endpoints (6).

   NOTE: When HDCP Notification is enabled (checked) and the source video is HDCP encrypted but the display attached to the decoder is not HDCP compliant, the decoder outputs a green screen. When HDCP Notification is disabled, a the decoder does not output a green screen, but outputs a black screen instead.

   TIP: After you make any change in steps 3 and 4, an asterisk (A) appears in the tab to indicate that there are unsaved changes.
5. Click SAVE OUTPUT (7) or SAVE ALL (8) to save the changes or CANCEL (9) to abandon them.
6. Click X (10) to close the Configuration Endpoints page or select a different tab to change other settings.

Output a test pattern

Configure the output test pattern as follows:

1. Click the OUTPUT tab (see figure 50, 1).

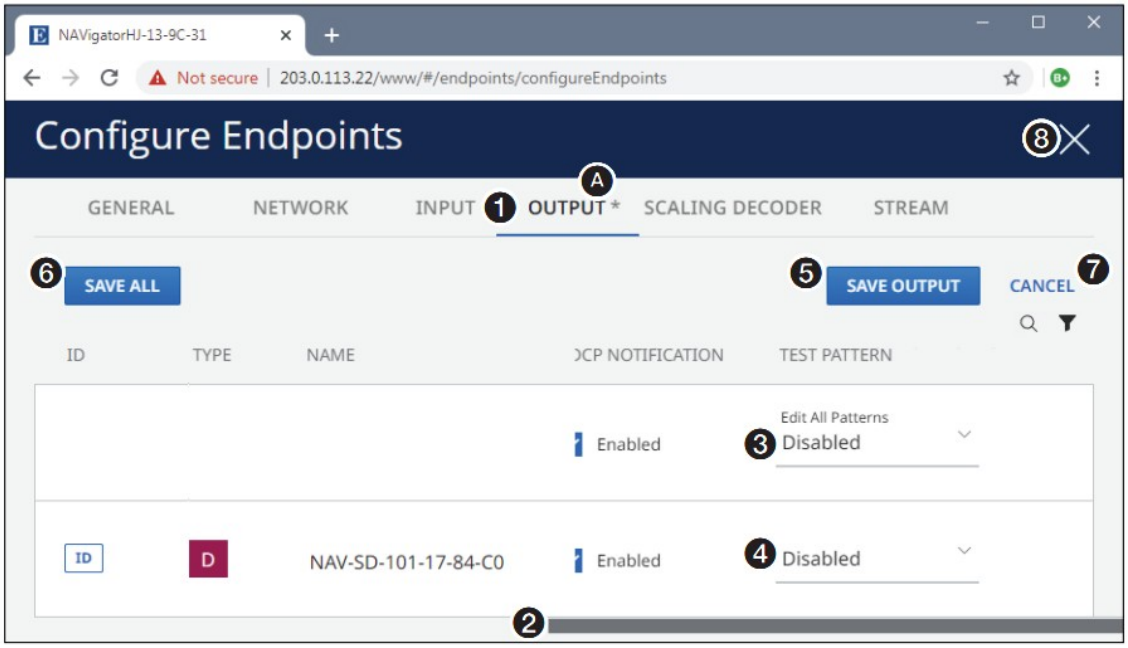
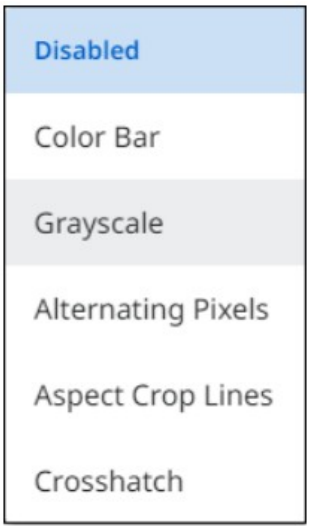


Figure 50. Configure Test Pattern

2. If necessary, click and drag the horizontal scroll bar (2) to the right to reveal the Test Pattern drop-down list.

   NOTE: The Name field is locked in position and does not move.

3. Click the Test Pattern drop-down list for all outputs (3) or for one or more individual endpoints (4) to select among the available test patterns (shown at right) or no test pattern (Disabled).



   NOTE: Test patterns are for debug and setup purposes. They let you validate a video signal path in the system and setup the displays connected to the outputs.

   • Most encoders can output color bar and grayscale test patterns.

   • Most decoders can output color bar, grayscale, alternating pixels, aspect crop lines, and crosshatch test patterns.

   TIP: After you make a change in step 3, an asterisk (A) appears in the tab to indicate that there are unsaved changes.

4. Click SAVE OUTPUT (5) or SAVE ALL (6) to save the changes or CANCEL (7) to abandon them.
5. Click X (8) to close the Configuration Endpoints page or select a different tab to change other settings.

SCALING DECODER tab

NOTE: The Scaling procedures that follow assume that you already have the GENERAL tab displayed on the

Configure Endpoints tools (see the procedure on page 37).

Configure the scaler
Configure the output scaler settings as follows:

1. Click the SCALING DECODER tab (see figure 51, 1).

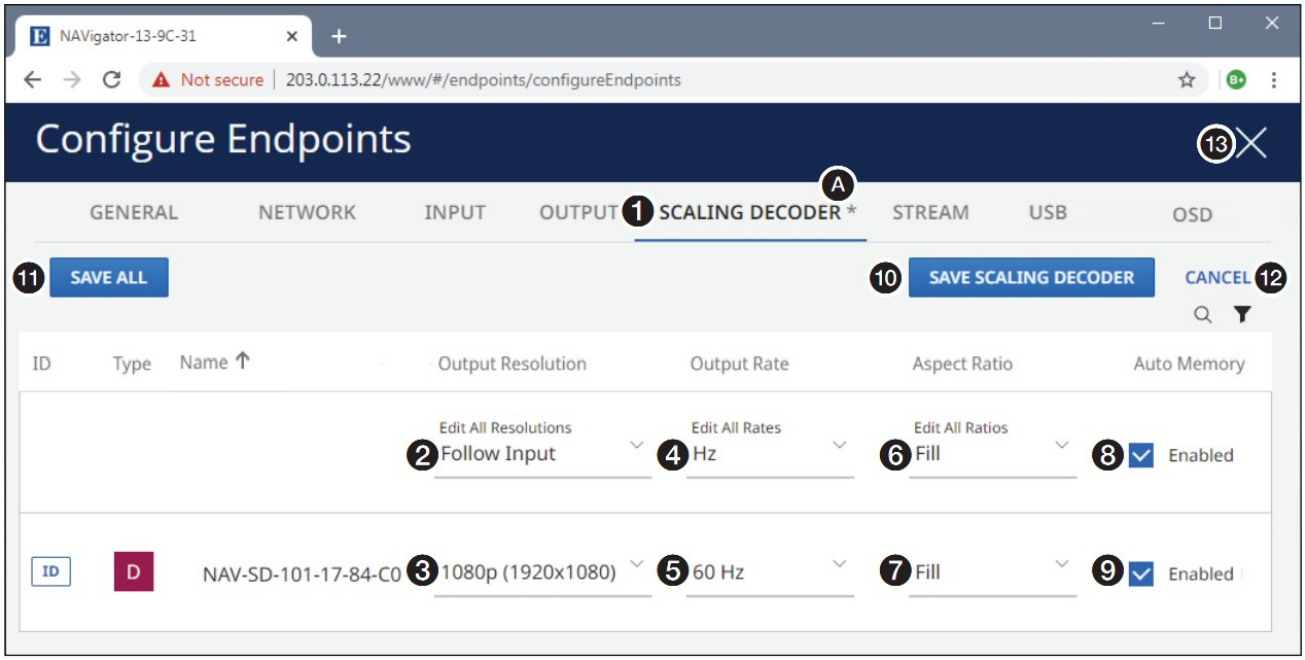


Figure 51. Endpoints Page, Configure Tools — Scaling Decoder Tab

2. Click the Edit Output Resolution drop-down list for all outputs (2) or for one or more individual endpoints (3) to select among Follow Input (no scaling) or scaled to a desired output resolution from the options presented.
3. Click the Edit Output Rate drop-down list for all outputs (4) or for one or more individual endpoints (5) to select among the available rates.

   NOTE: See the applicable decoder user guide, available at www.extron.com, for a detailed list of available output resolutions and rates.
4. Click the Edit Aspect Ratio drop-down list for all outputs (6) or for one or more individual endpoints (7) to select between Follow (no scaling, maintain the aspect ratio of the input video) or Fill (scale the output to fill the connected display).
5. If desired, select (click) or deselect the Auto Memory checkbox for all outputs (8) or for one or more individual endpoints (9). Auto memory automatically saves picture adjustments to memory based on the incoming signal resolution and recalls them when the resolution is detected.

   TIP: After you make any changes in step 2 through 5, an asterisk (A) appears in the tab to indicate that there are unsaved changes.
6. Click SAVE SCALING DECODER (10) or SAVE ALL (11) to save the changes or CANCEL (12) to abandon them.
7. Click X (13) to close the Configuration Endpoints page or select a different tab to change other settings.

STREAM tab
Configure the streaming settings

NOTE: Lay out the complete scheme for all streaming IP addressing before adjusting the addresses to avoid creating a situation in which the system becomes inoperable.
Configure the streaming settings as follows:

1. Click the STREAM tab (see figure 52, 1).

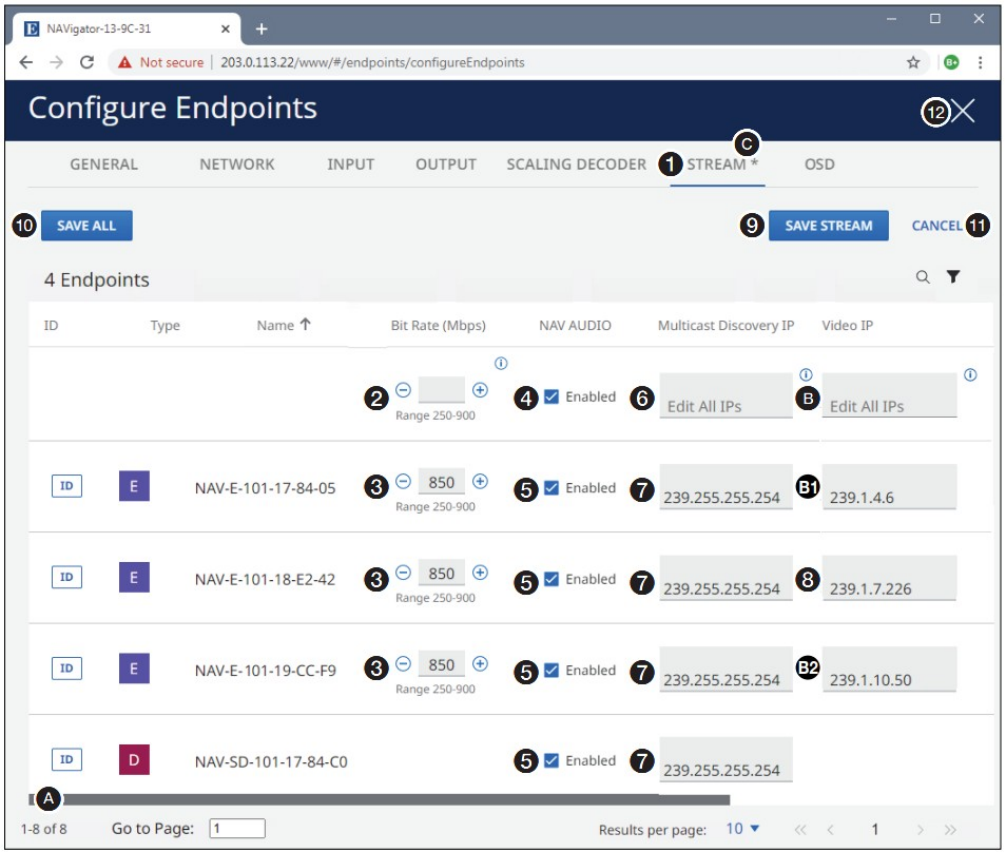


Figure 52. Endpoints Page, Configure Tools — Stream Tab

2. Click in the BIT RATE (MBPS) field for all encoders (2) or for one or more individual encoders (3) and edit it as desired or click ⊕ or ⊖ to increment or decrement the field value. The valid range is from 25θ to 95θθ.

   NOTE: The upper limit for 1G encoders is 900 Mbps. The upper limit for 10G encoders is 9500 Mbps. If you enter a BIT RATE (MBPS) value for all encoders (2), it affects both 1G and 10G products.

3. Click the NAV AUDIO checkbox or all endpoints (4) or for one or more individual endpoints (5) to toggle NAV AUDIO on and off.

4. Click one or more IP address fields to be edited and make changes as necessary (see figure 52, 8 on page 43).

   • Multicast Discovery IP fields

   • Video IP fields (the field is present only for encoders)

   • Audio IP fields (the field is present only for encoders

   • USB IP fields (the field is present only for endpoints with USB streaming capabilities)

   NOTES:

   • Drag the scroll bar (A) as necessary to reveal fields on the right side of the screen. The right side of the STREAM tab is revealed (see figure 53).

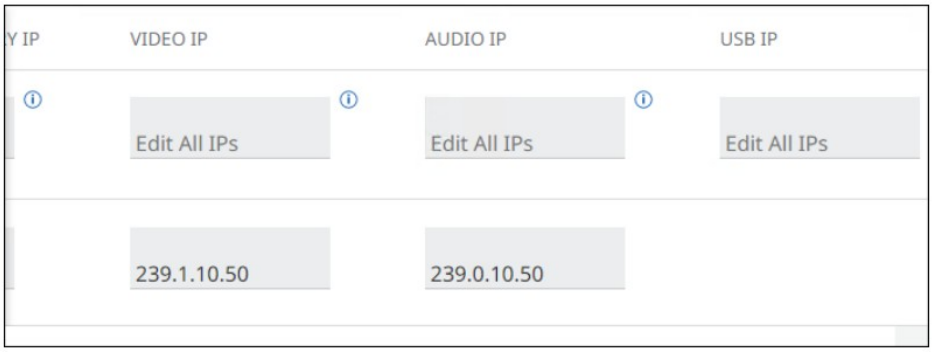


Figure 53. Revealed Fields

   • The default Multicast Discovery IP address is 239.255.255.254.

• The valid range for all other addresses on this pane is from 224.0.0.0 to 239.255.255.255, exclusive of 239.69 addresses, which are reserved for AES67.

• Each field with an address must be unique.

TIPS:

• If you enter a value in the Edit All IPs field for a column of address (such as Video IP (B), the first endpoint listed below the edited field is changed to that number (B1). Subsequent AES67 Audio Address numbers (B2 and B3) increment as the endpoints are listed from top to bottom unless you have also made a change to an individual endpoint (8).

• After you make any changes in step 2 through 5, an asterisk (C) appears in the tab to indicate that there are unsaved changes.

5. Click anywhere outside the edited field or fields. The SAVE buttons become available.
6. Click SAVE STREAM (9) or SAVE ALL (10) to save the changes or CANCEL (11) to abandon them.
7. Click X (12) to close the Configuration Endpoints page or select a different tab to change other settings.

Configure the USB settings

NOTE: The USB tab is present only if you select one or more endpoints with USB streaming capabilities in Configure Selected Endpoint Communication Settings, step 3 on page 33.

Configure the USB streaming capabilities of applicable endpoints as follows:

1. Click the USB tab (see figure 54, 1).

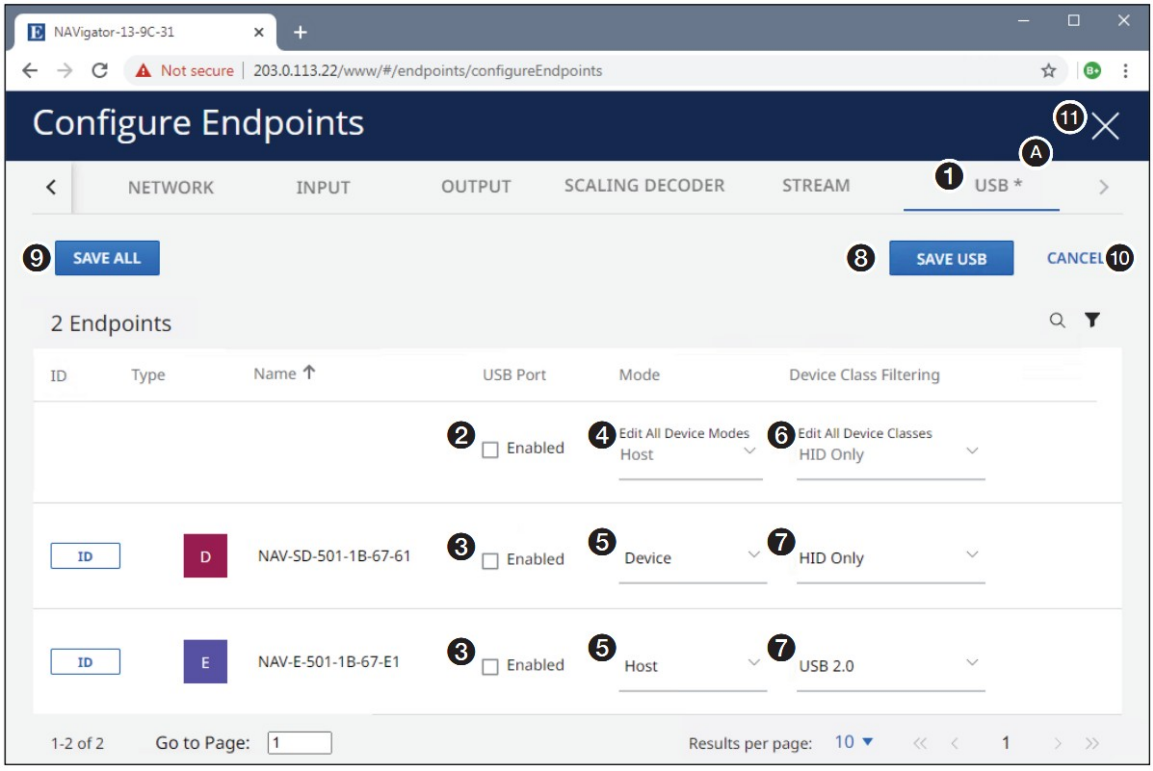


Figure 54. Endpoints Page, Configure Tools — USB Tab

2. Click the USB PORT checkbox for all endpoints (see figure 54, 2) or for one or more individual endpoints (3) to toggle the port enabled and disabled.
3. Click the MODE drop-down list for all endpoints (4) or for one or more individual endpoints (5) to select between Host and Device.
4. Click the DEVICE CLASS FILTERING drop-down list for all inputs (6) or for one or more individual endpoints (7) to select between USB 2.0, or HID Only (Human Interface Device), a class of devices for human interface such

as keyboards and mice.

NOTES:

• The MODE and DEVICE CLASS FILTERING drop-down lists are unavailable for selection if the USB port is disabled in step 2.

• DEVICE CLASS FILTERING restricts the USB device types, typically for security purposes. Different functionality applies in the two modes.

TIP: After you make any changes in step 2 through 4, an asterisk (A) appears in the tab to indicate that there are unsaved changes.

5. Click SAVE USB see figure 54, 8 on page 55) or SAVE ALL (9) to save the changes or CANCEL (10) to abandon them.
6. Click X (11) to close the Configuration Endpoints page or select a different tab to change other settings.

OSD tab

Configure the On-screen display and screen saver capabilities of the endpoints as follows:

1. Click the OSD tab (see figure 55, 1).
2. For OSD settings, see “Configure the OSD.”

   For screen saver settings, see Configure the screen saver on page 57.

Configure the OSD

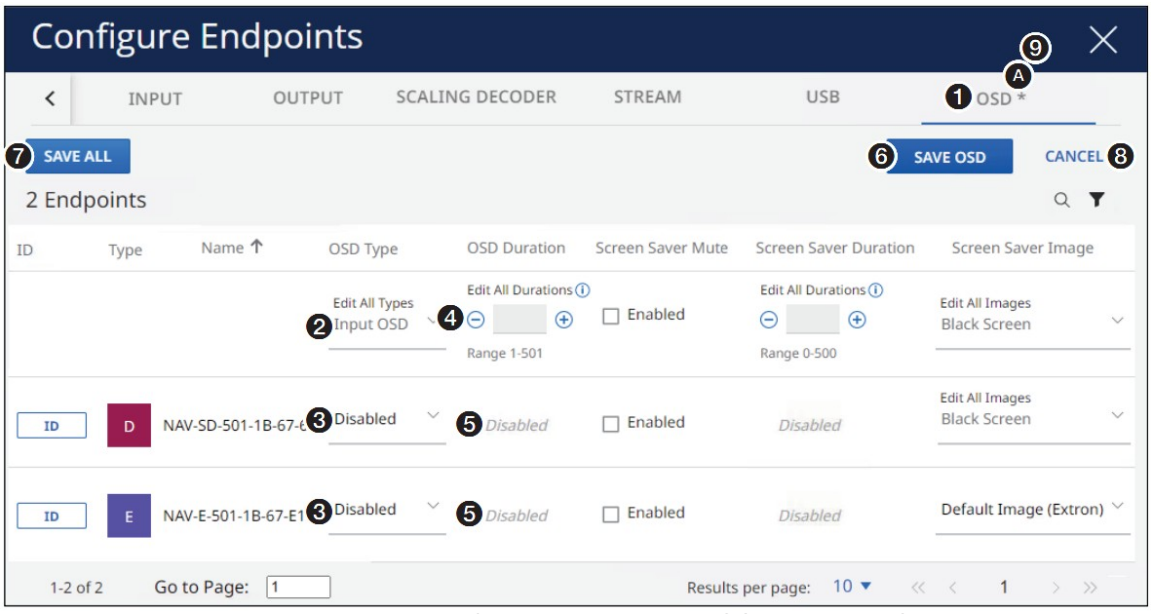


Figure 55. Endpoints Page, Configure Tools — OSD Tab and Operations

1. Click the OSD Type drop-down list for all endpoints (2) or for one or more individual endpoints (3) to select between Input OSD (input connection details), Status OSD (general endpoint details), Custom (user provided text), or Disabled (no OSD).
2. Click in the OSD Duration field for all endpoints (4) or for one or more individual endpoints (5) and edit it as desired or click ⊕ or ⊖ to increment or decrement the field value. The valid range is from 1 to 5θθ (in seconds) or 501 (always on).

   TIP: After you make any changes in steps 3 and 4, an asterisk (A) appears in the tab to indicate that there are unsaved changes.
3. Click SAVE OSD (6) or SAVE ALL (7) to save the changes or CANCEL (8) to abandon them.

4. Click X (9) to close the Configuration Endpoints page, select a different tab to change other settings, or continue to Configure the screen saver o page 57.

Configure the screen saver

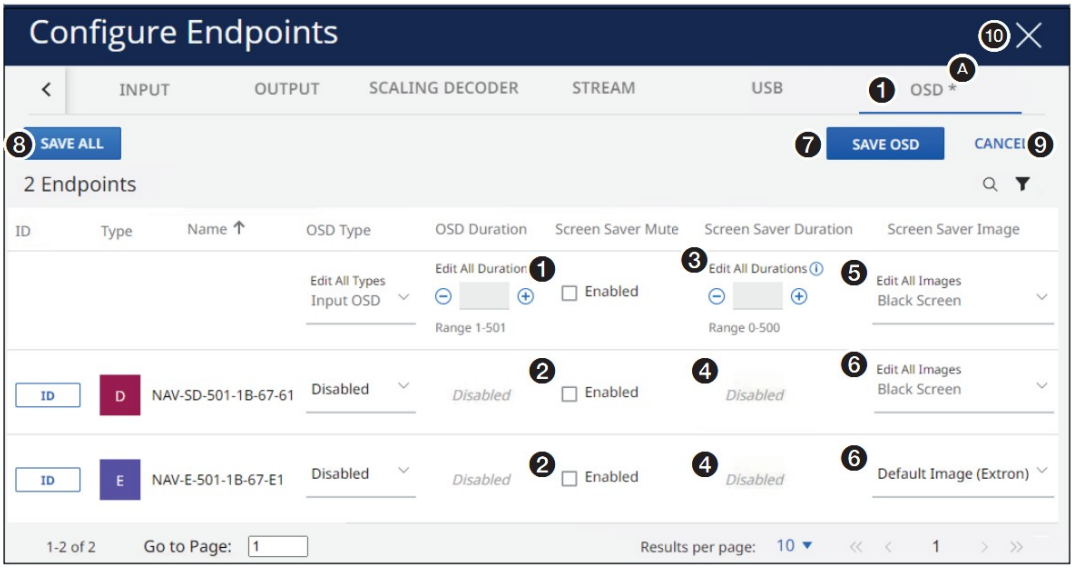


Figure 56. Endpoints Page, Configure Tools — OSD Tab Screen Saver Operations

1. Click the Screen Saver Mute checkbox for all endpoints (see figure 56, 1) or for one or more individual endpoints (2) to toggle the port enabled and disabled. This control sets whether a display immediately enters low power mode screen saver (is muted) upon loss of sync or displays selected screen (see Screen Saver Image, 5 or 6) for a period of time set by the Screen Saver Duration setting (3 or 4).

   NOTES:

   • When Screen Saver Mute is unchecked, the duration is disabled and the screen saver is always on.

   • AUDIO ONLY must be disabled (see Create NAV Ties, step 3 on page 35) for the screen saver image to show.
2. Click in the Screen Saver Duration field for all endpoints (3) or for one or more individual endpoints (4) and edit it as desired or click ⊕ or ⊖ to increment or decrement the field value. This control determines how long the screen saver stays active, before muting sync to a display. The valid range is from 0 to 500 (in seconds).

   After the duration expires, the encoder drops the active sync, allowing the display to turn off or enter low power mode.
3. Click the Screen Saver Image setting drop-down list for all endpoints (see figure 57, 5) or for one or more individual endpoints (6) to select among:

   • Black Screen

   • Blue Screen

   • Retain Last Frame

   • Default Image (Extron) (Extron logo)

   • Custom Image (image of your choosing, png file format, 4K [4096 x 2160) max.])

   NOTE: To be available for selection, the custom image must be manually uploaded into the endpoint (see the applicable User Guide at www.extron.com).
4. Click SAVE OSD (7) or SAVE ALL (8) to save the changes or CANCEL (9) to abandon them.

NOTE: If you have selected Custom Image and have not already uploaded an image, an Open dialog box opens

(see figure 57). Upload a custom image as follows:

1. Navigate to the folder where the image file is saved (1). Select the file.

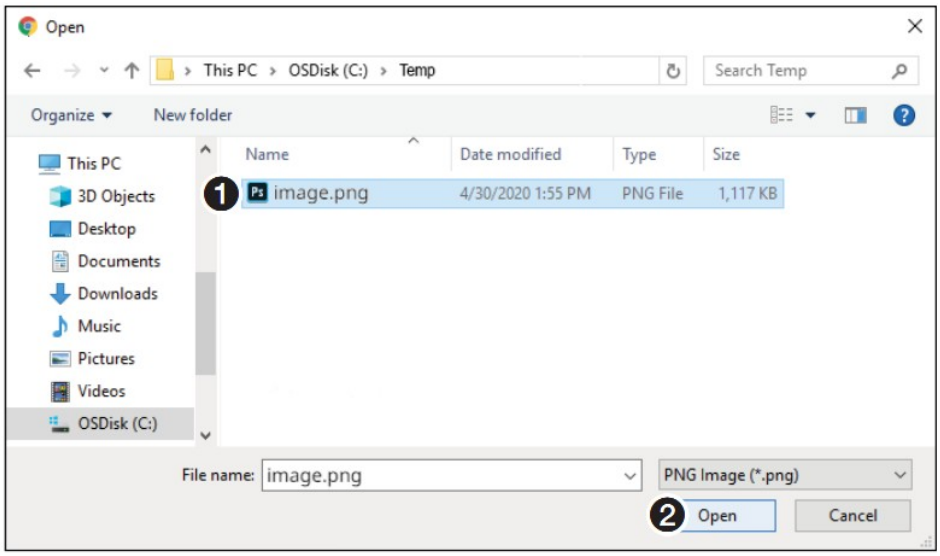
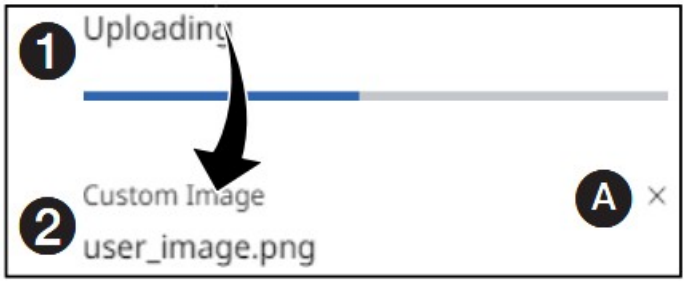


Figure 57. Open Dialog Box

2. Click Open (2).

   The Screensaver pane reports that it is uploading the image (1, at right) and then reports that it is the custom image (renamed user_image.png) (2).

   Click ☒ (A) to delete the image. This action is necessary to replace the custom image.

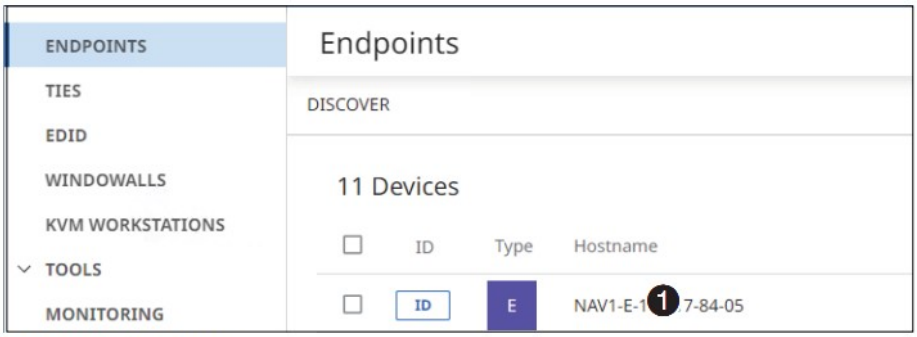


3. Click X (see figure 56, 10 on page 57 to close the page or select a different tab to change other settings.

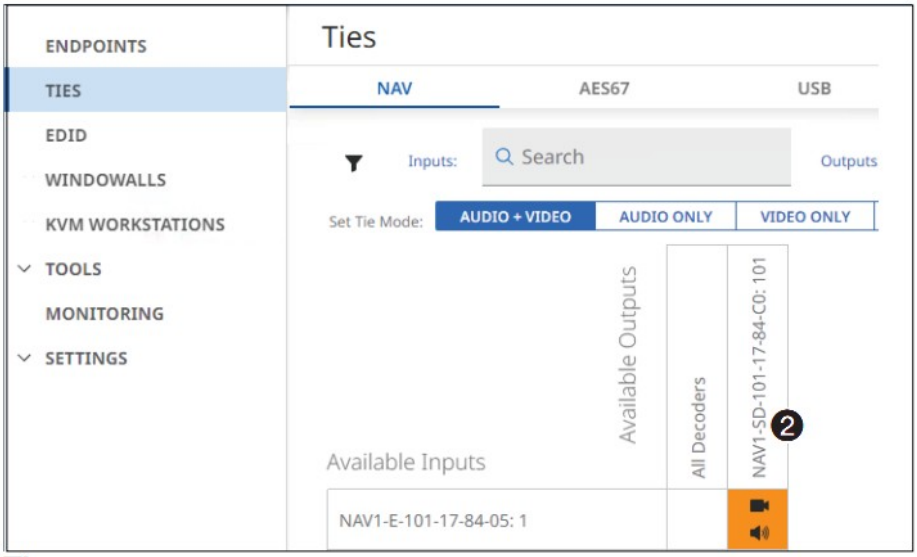
Device Details pane, confidence preview, and proxy connections

A Device Details pane for an individual connected endpoint is available from the Ties page and from the Endpoints page that provides details about that endpoint.

To open the pane, click in the field for the connected endpoint on the Endpoints page (see figure 58, 1) or Ties page (2). The HTML page opens a Device Details pane to the right of the page (see figure 59 on page 60), on which you can view additional model and operational details for the endpoint, break ties, view the confidence preview of an endpoint (if enabled, see Enable and disable Confidence Preview on page 43), and set a proxy connection (see Proxy connection on page 60).



Endpoints page



Ties page

Figure 58. Open an HTML Page for a Connected Endpoint

TIPS:

- Confidence preview (A)
- Tags, if created, are displayed on this pane (B).
- Click BREAK (C), if present (if this endpoint is part of a tie), to break the active tie.

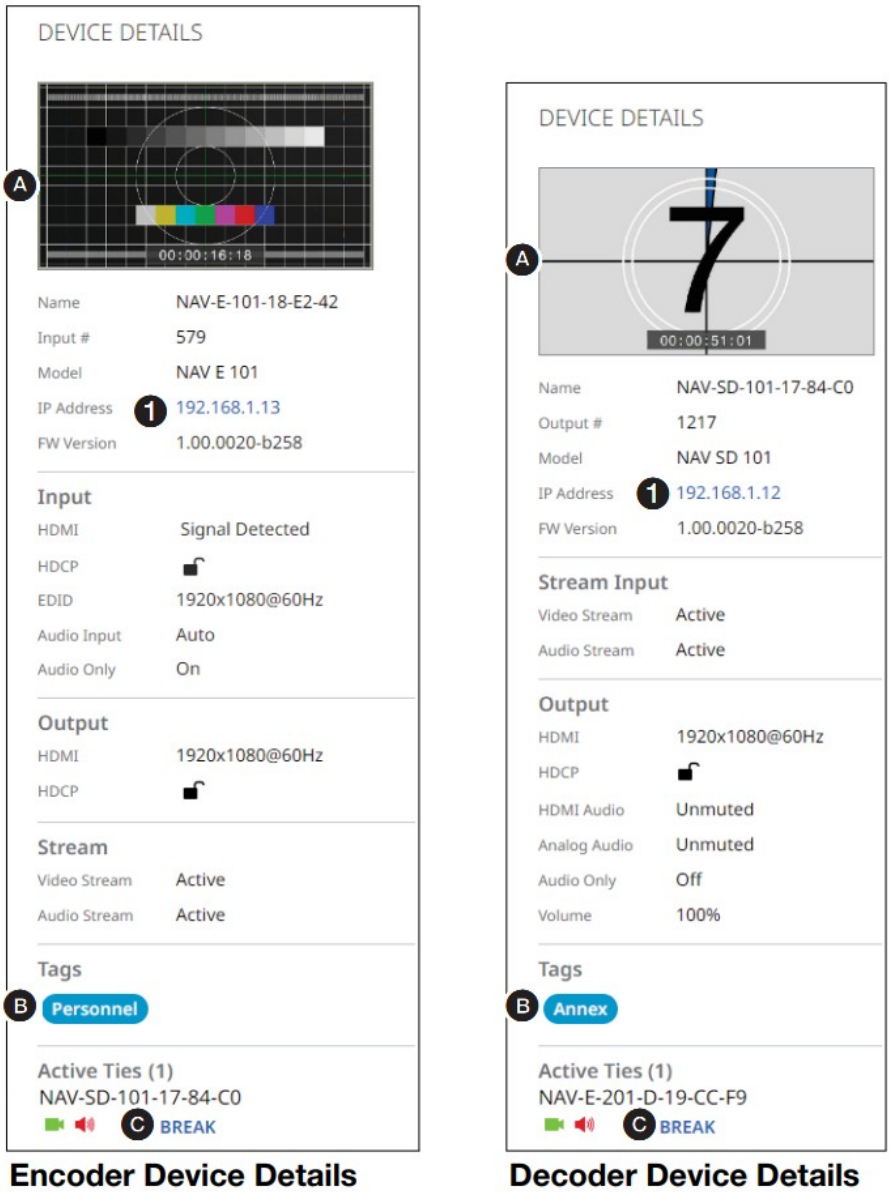


Figure 59. Device Details Panes

Proxy connection

The HTML pages of an endpoint can be opened from the Device Details pane for additional configuration of that endpoint (known as “proxying an endpoint”).

Click the IP Address link in the Device Details pane (see figure 59, 1). The HTML page opens a new tab in the browser that is connected to the endpoint. The HTML page for the endpoint behaves as described in the user guides for the endpoint (see the applicable encoder and decoder guides available at **www.extron.com**).

Ties Page

Creating NAV ties using the Ties page tools is fully described in Create NAV Ties on page 35.

You can also create ties using an Extron product that can be controlled by the Extron Digital Signal Processor (DSP) program, such as a DMP 128 Digital Matrix Processor (see Operation with AES67 Audio on page 148).

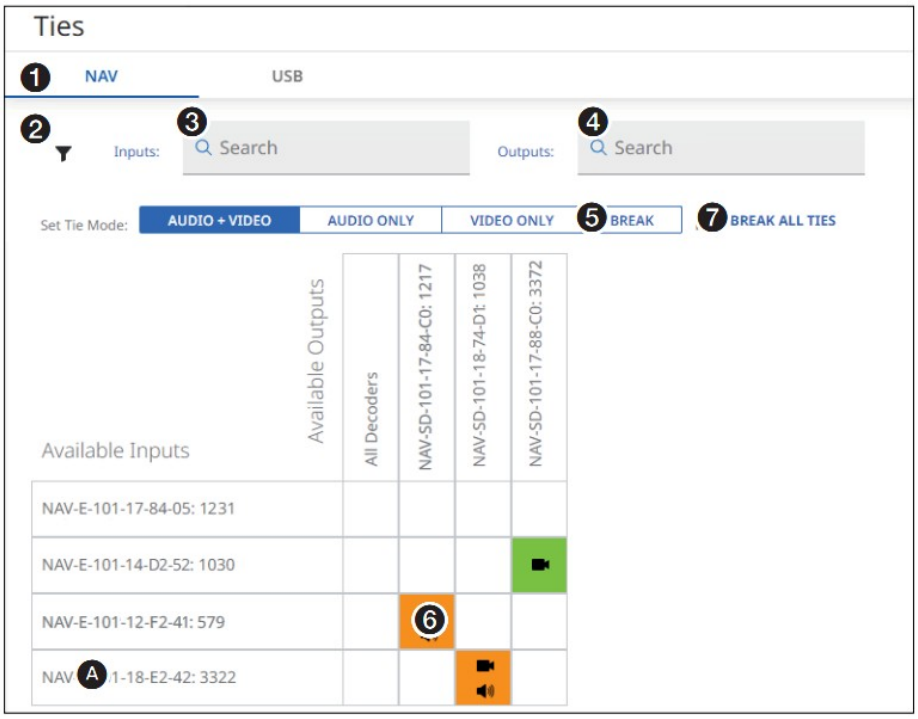


Figure 60. Ties Pane Features

1. NAV and USB Tabs — Select the desired tab to display only encoders streaming NAV audio and only encoders streaming USB.

   NOTE: When you select the USB tab (see figure 61, 1), the appearance of the Ties pane changes (see figure 62) to show Available Hosts and Available Devices and only endpoints that can stream USB and make USB ties are shown. Any ties that have been made are shown (A).

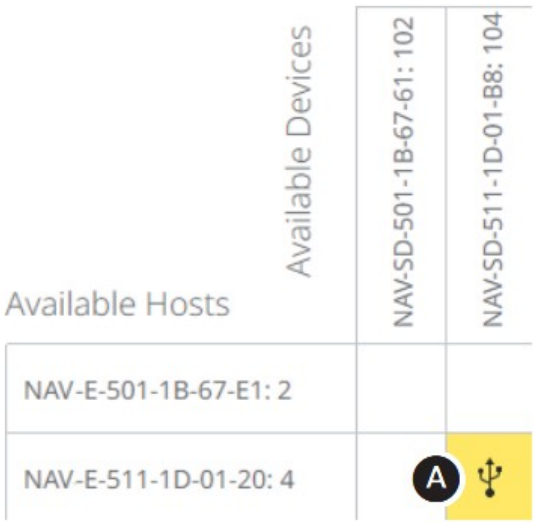


   Figure 61. USB Tab Selected

2. Filter menu— Click the drop-down list to show only endpoints by specific criteria (if created).
3. Search Inputs field — Click in the field and enter a few characters to search for an input by name.
4. Search Outputs field — Click in the field and enter a few characters to search for an output by name.

   NOTE: See Add and edit names, tags, and locations on page 40 to assign and edit 2, 3, and 4 values.
5. Break button — Unties any established ties when you click in a tie within the grid (6).
6. Break All Ties button — Breaks all ties in the NAV system.

TIP: You can also open the HTML page of a single endpoint for configuration (see Device Details pane, confidence preview, and proxy connections on page 59), as follows:

1. Click in the field for the connected endpoint (see figure 61, A on page 61). The HTML page opens a Device Details pane at the right of the Ties page.
2. Click the IP Address (1, at right). The HTML page opens a new tab in the browser that is connected to the endpoint.

EDID Page

The EDID page (see figure 62) has several tools to tailor the grid to more easily find specific EDIDs.

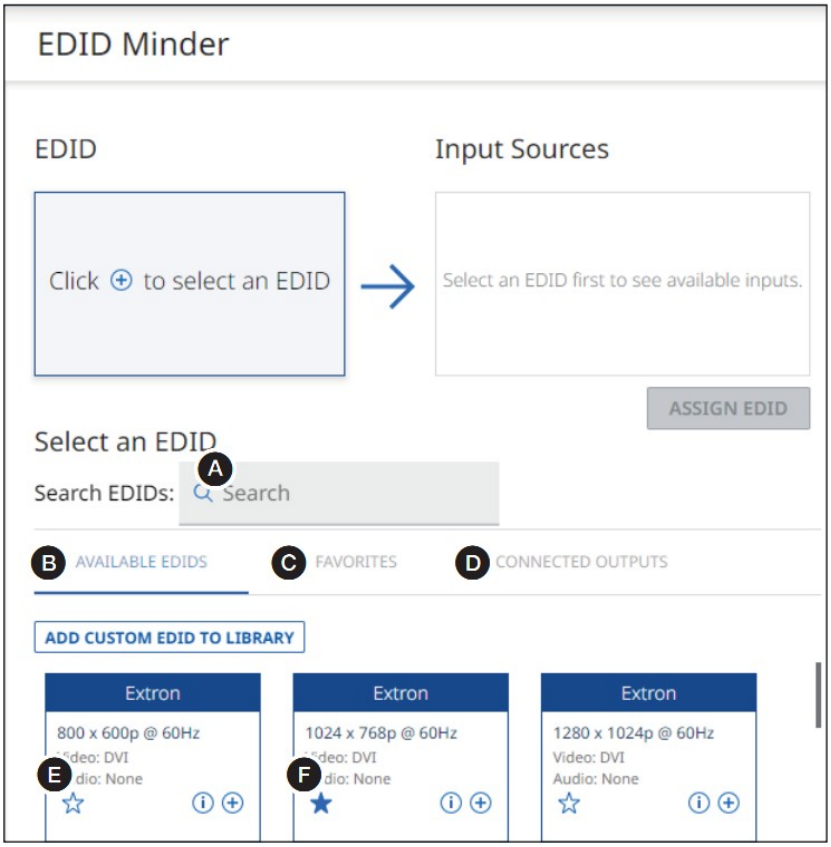


Figure 62. EDID Tools

A. Search EDIDs — Enter a few characters in a resolution (such as “204” or “216” for 2048 x 2160) or refresh rate (such as such as “6” for 60Hz) to search for EDIDs of only that resolution or rate.
B. Available EDIDs — Click to show all EDIDs.
C. Favorites — Click show only the EDIDs that you have designated as a favorite (see E and F).
D. Connected Outputs — Click to display only the EDIDs of connected output displays (loop-through for the encoder and output for the decoder).

NOTES:

- Available EDIDs — All EDIDs on the NAVigator including custom or uploaded EDIDs.
- Favorite EDIDs — EDIDs that you have tagged as favorite (**F**).
- Connected Outputs — Display devices connected on either the Encoder HDMI Loop through or the Decoder HDMI output.

E. Set Favorite icon — The EDID is not designated as a favorite. Click the icon in an EDID to toggle the favorite status of that EDID on.

F. Favorite icon — The EDID is designated as a favorite. Click the icon in an EDID to toggle the favorite status of that EDID off.

Assign an EDID to an input

Use the EDID page to select an EDID and assign it to one or more inputs (encoders) as follows:

1. If necessary, click the Menu icon (see figure 63, 1).

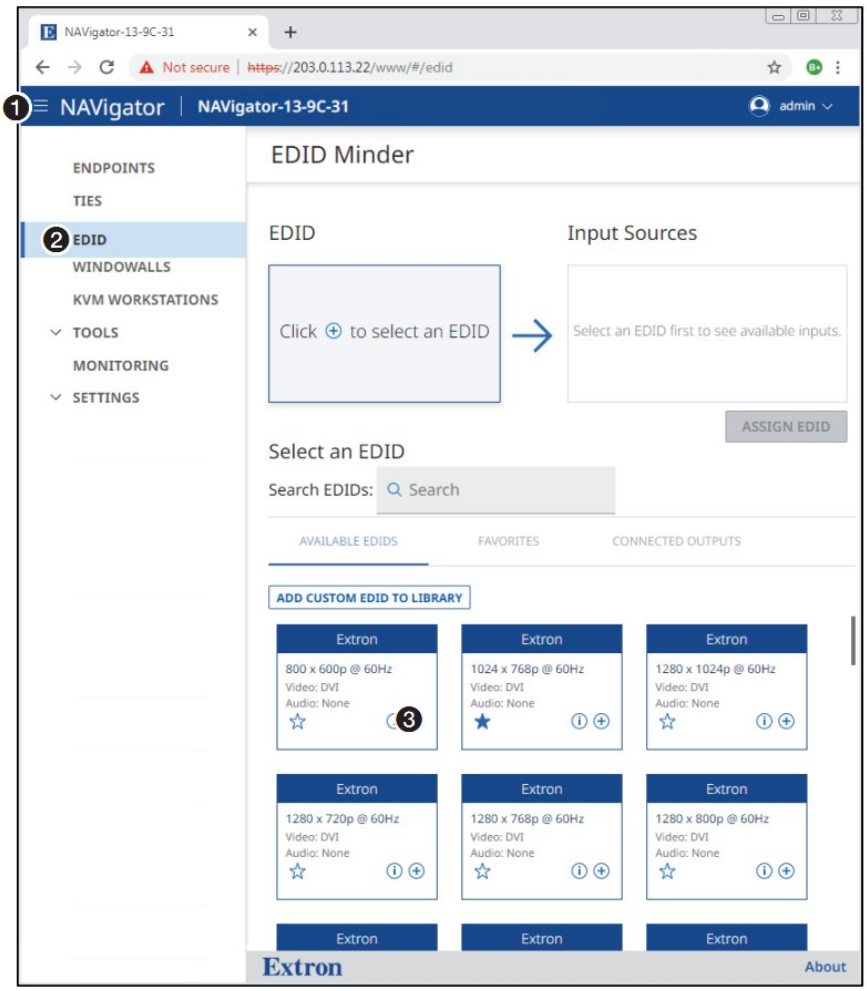


Figure 63. EDID Pane

2. If necessary, click EDID (2). The EDID page displays a library of EDID files which you can select and then assign to one or more inputs (encoders).
3. Select the desired EDID (click the , 3). The selected EDID displays in the EDID field (see figure 64, 1 on page 65). Available input sources are also displayed (2).

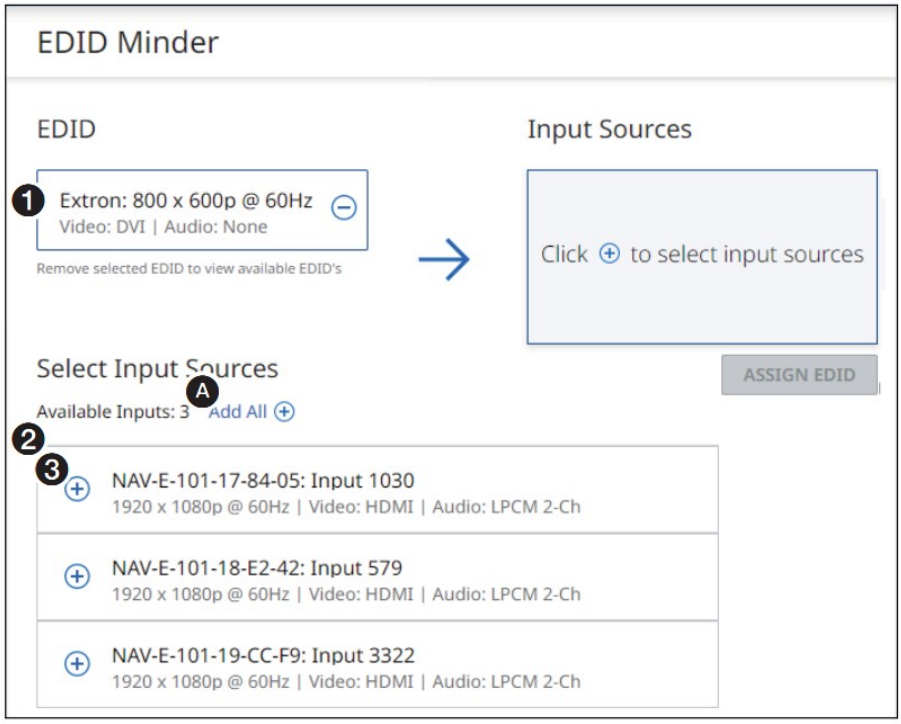


Figure 64. EDID Page With EDID Selected

NOTE: Click Add All ⊕ (see figure 64, **A**) to select all inputs with one click.

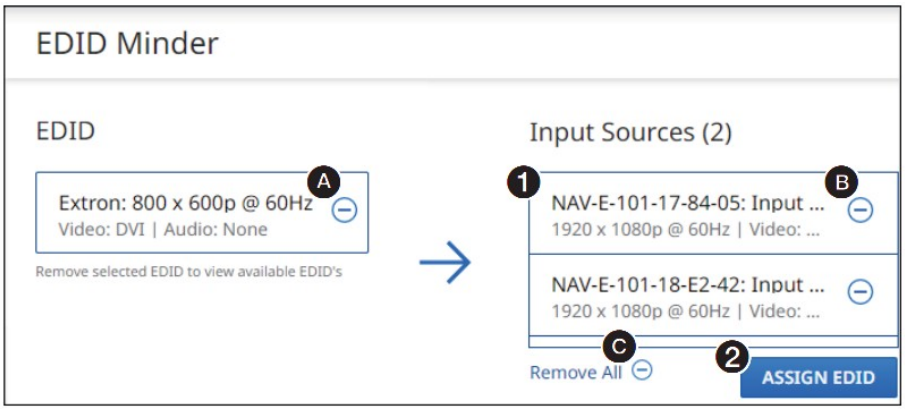
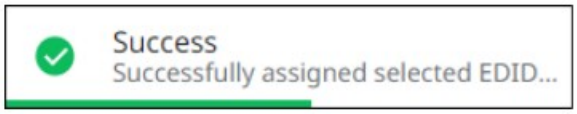


Figure 65. EDID Page with Input Sources Selected

TIPS:

- Click the EDID ⊖ (A) to clear all selections. The page appears as in figure 63 on page 64.
- Click a selected Input Source ⊖ (B) to remove that input selection.
- Click Remove All ⊖ (C) to remove all input selections. The page appears as in figure 65.

4. Click ASSIGN EDID (see figure 65, 2). The NAVigator assigns the EDIDs and reports success on the EDID page.



Download an EDID

Use the EDID page to download EDID from the library to your PC as follows:

1. If necessary, click the Menu icon (see figure 66, 1).

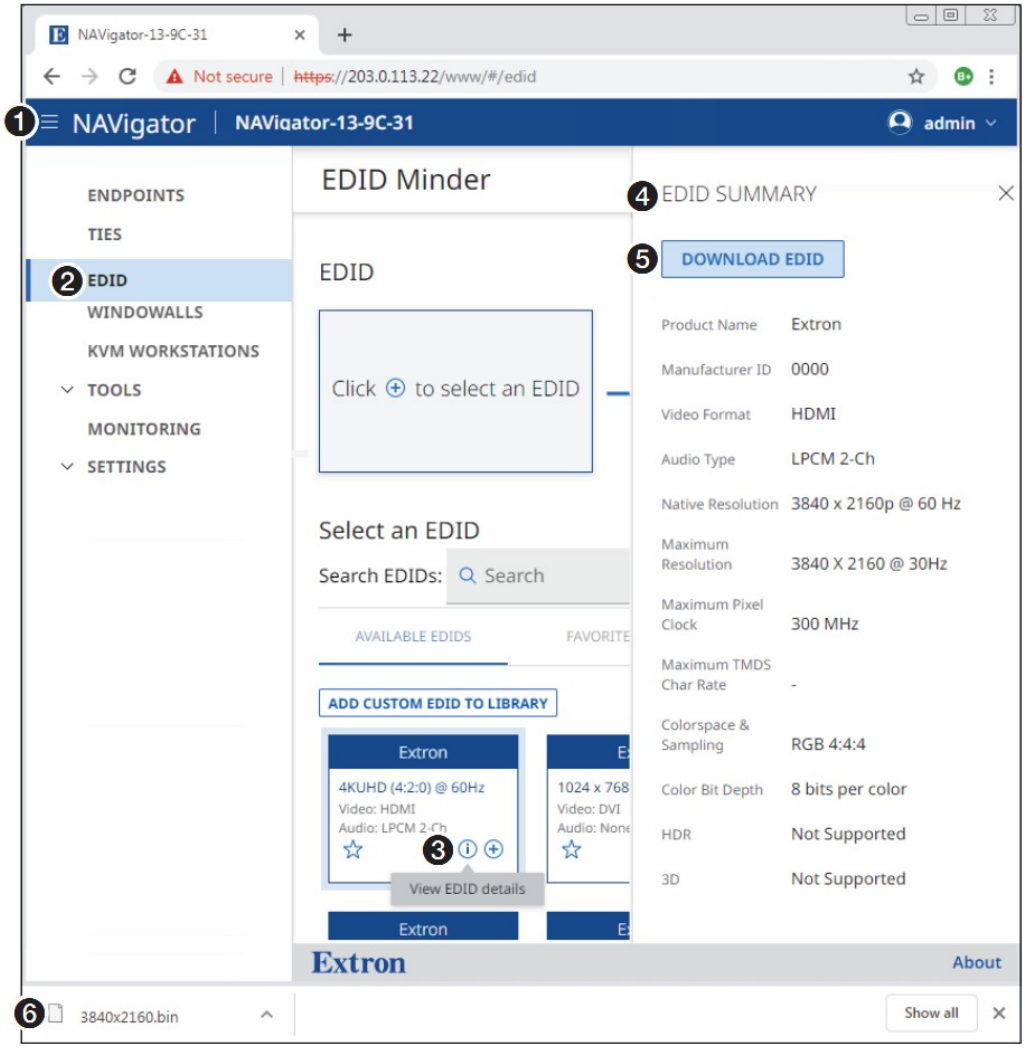


Figure 66. EDID Pane — Download an EDID

2. If necessary, click EDID (2).

   For the EDID to download, click the Information (ⓘ) icon (3).

   The HTML page opens an EDID Summary pane to the right of the EDID page (4). The panel lists:

• Product name	• Maximum character rate
• Audio type	• High Dynamic Range (HDR)
• Max. pixel clock	• Video format
• Color bit depth	• Maximum resolution
• Manufacturer ID	• Colorspace and sampling
• Native resolution	• 3D

3. Click Download EDID (5). Figure 67 shows the results of downloading an EDID in the Chrome browser (6).

Add a custom EDID

Use the EDID page to add a custom EDID from your PC to the library as follows:

1. If necessary, click the Menu icon (see figure 67, 1).

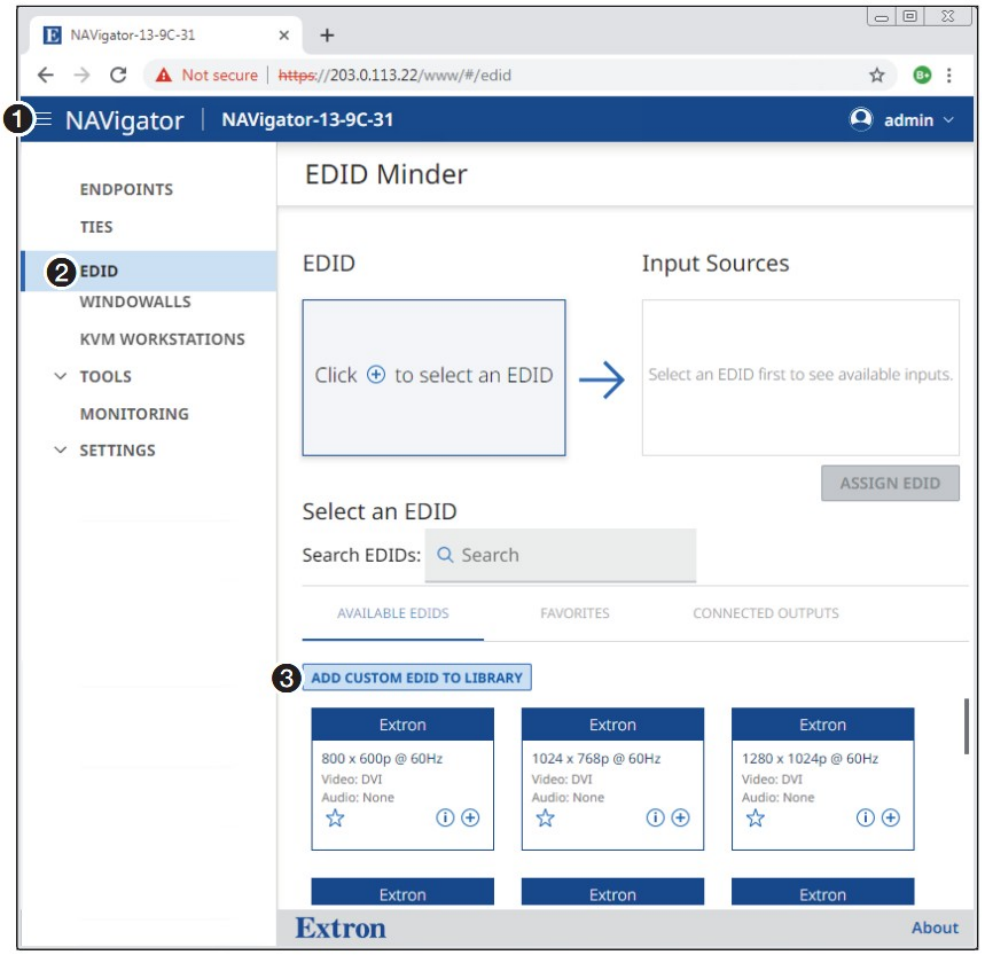


Figure 67. EDID Page — Add a Custom EDID

2. If necessary, click EDID (2).
3. Click ADD CUSTOM EDID TO LIBRARY (3). An Open dialog box opens (see figure 68 on page 68)

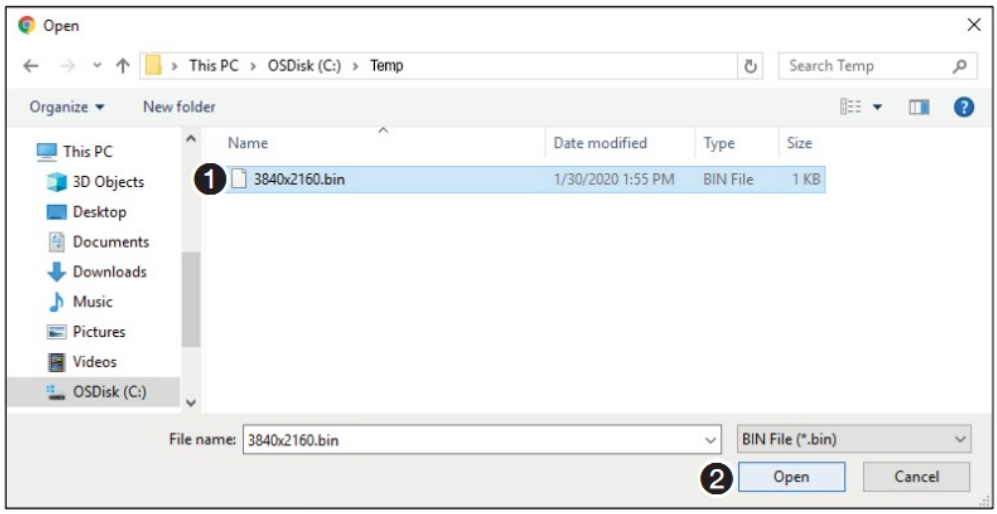


Figure 68. Open Dialog Box

4. Navigate to the folder where the EDID file is saved (see figure 68, 1). Select the file.
5. Click Open (2). The NAVigator reports that it is Uploading and then Adding the EDID to the library.

NOTE: This action happens quickly; you may not see it.

The EDID page returns to the top. The added EDID is displayed with a lighter border color (see figure 69, 1).

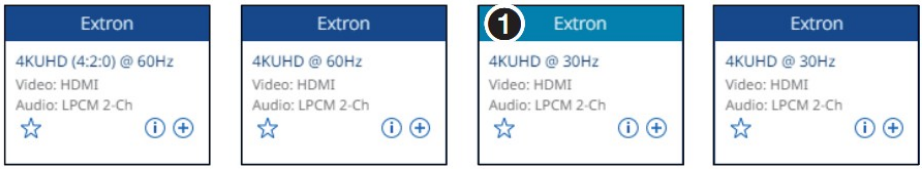


Figure 69. Custom EDID Displayed in EDID Page

Delete a custom EDID

Use the EDID page to remove a custom EDID as follows:

1. If necessary, click the Menu icon (see figure 70, 1).

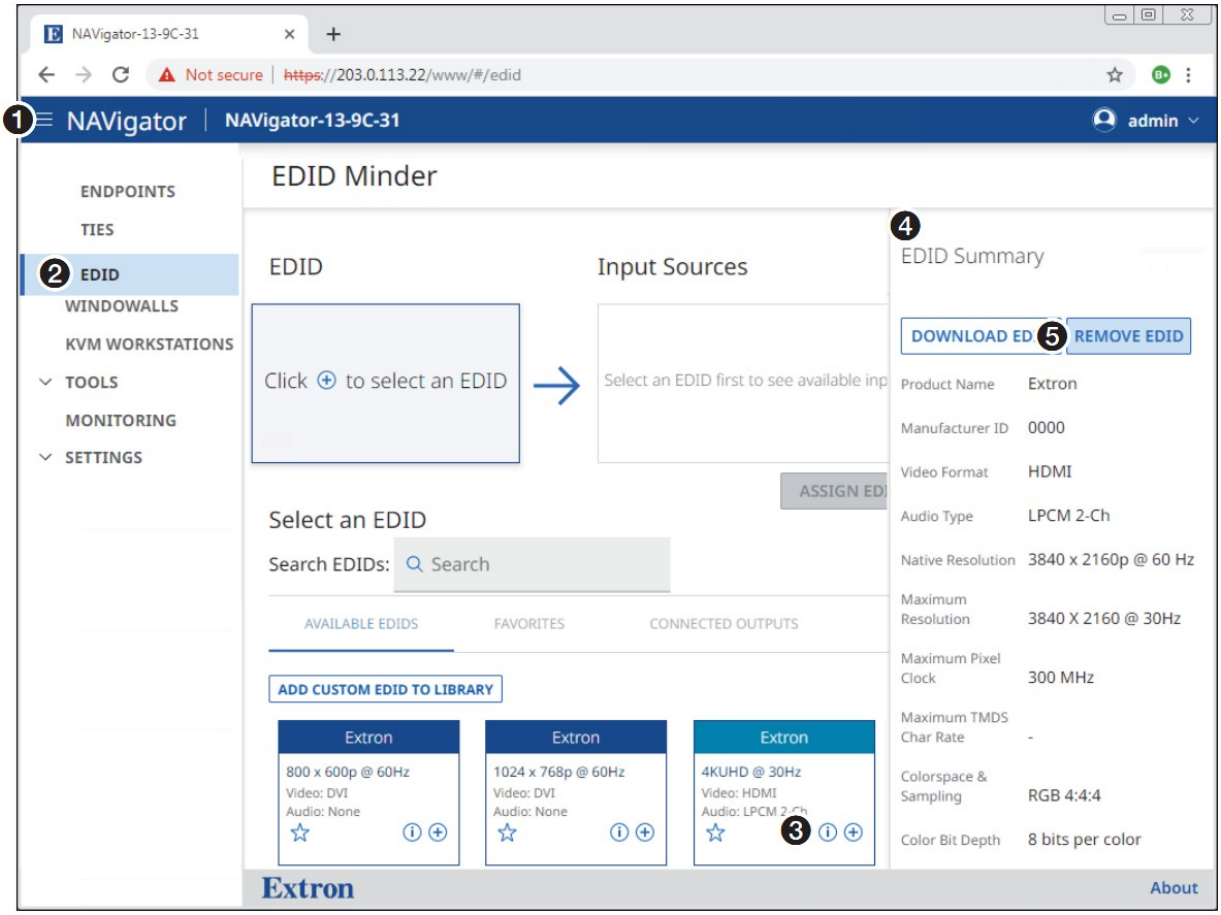
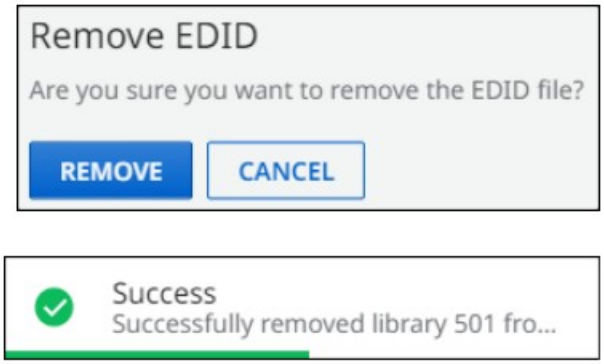


Figure 70. Deleting a Custom EDID

2. If necessary, click EDID (2). The EDID page displays a library of EDID files.
3. Click the Information (ⓘ) icon (3) on the custom EDID you want to remove. The HTML page opens an EDID Summary pane to the right (4).

   NOTE: Factory-installed EDIDs cannot be removed.

   TIP: Custom EDIDs are displayed with a lighter border color.
4. Click REMOVE EDID (5).The HTML page asks you to confirm the deletion.



5. Click REMOVE. The NAVigator deletes the EDID and reports success on the endpoints page.

Find EDID common timings

The find EDID common timings function helps avoid a source device attached to a NAV encoder from sending a resolution and refresh rate that is beyond the capabilities of some displays in the system. Such an error would result in a black screen on displays whose performance capabilities have been exceeded.

Use the EDID page to find common timings as follows:

1. If necessary, click the Menu icon (see figure 71, 1).

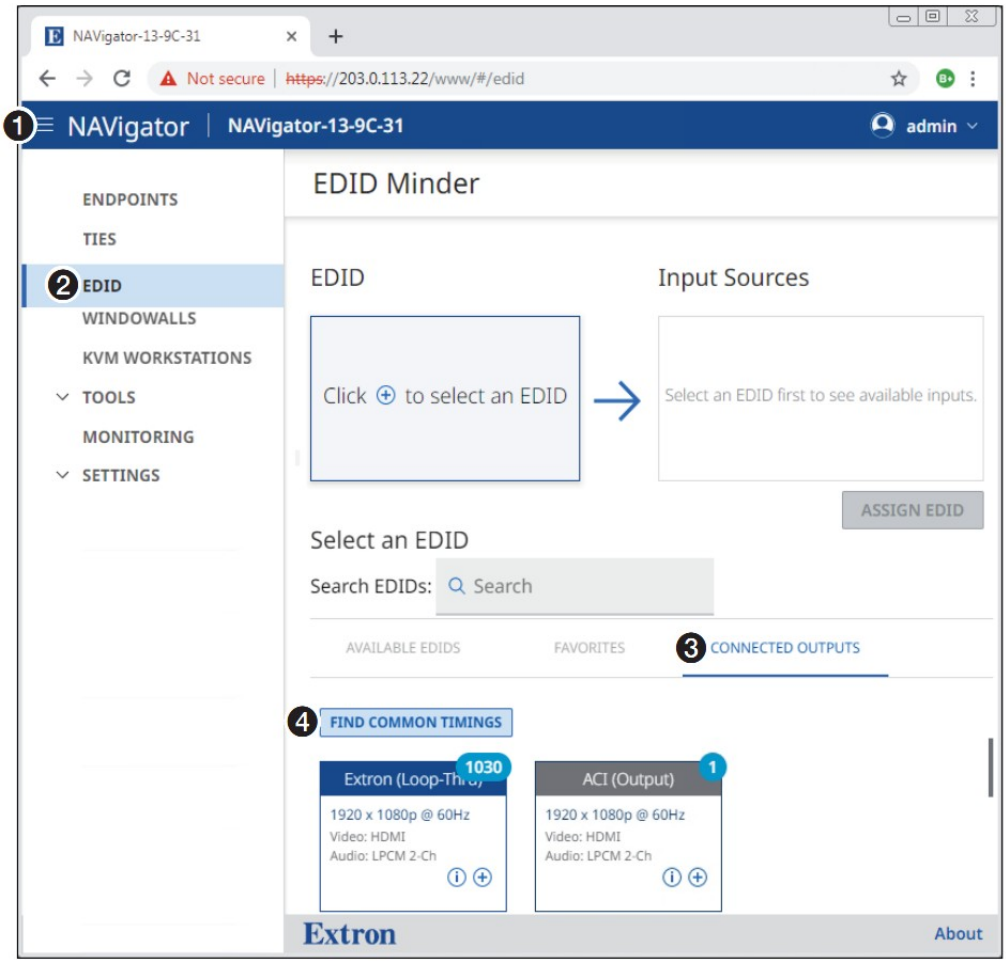


Figure 71. EDID Pane and Common Timings

2. If necessary, click EDID (2). The EDID page displays a library of EDID files.
3. Click CONNECTED OUTPUTS (3). If two or more connected outputs are detected, the FIND COMMON TIMINGS button appears (4).
4. Click FIND COMMON TIMINGS (4). The page shows a list of connected outputs and timings that are common to them (see figure 73 on page 71). The page also recommends the highest resolution and refresh rate compatible with all selected displays (3).

   NOTES:

   • EDIDs from Extron products are indicated in blue (see figure 72, A).

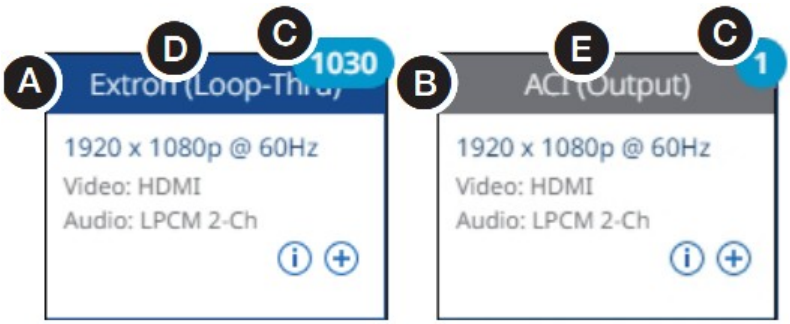


Figure 72. EDID Banners

• EDIDs from the products of other companies are indicated in gray (B).

• The pale blue numbers (C) indicate the endpoint from which the connected output EDID (Display EDID) came.

• An encoder has (Loop-Thru) (D) in the EDID banner and the number in the pale blue background (C) is the input number.

• A decoder has (Output) (E) in the EDID banner and the number in the pale blue background (C) is the output number.

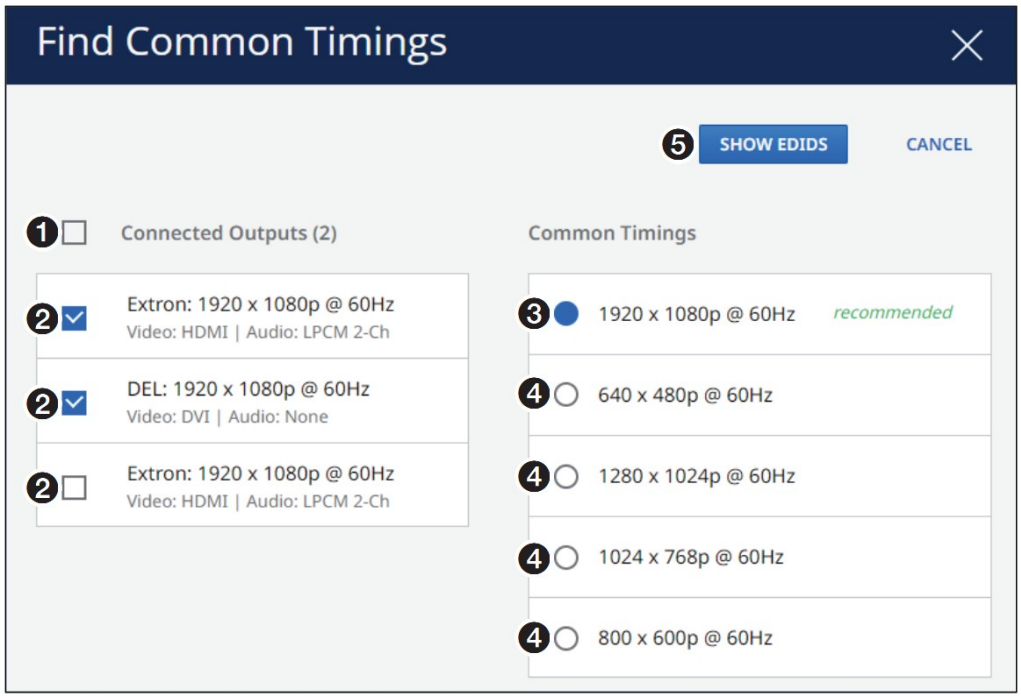


Figure 73. Selecting the Common Timing

5. Click the checkbox to select all Connected Outputs (see figure 73, 1) or use the individual checkboxes (2) to select one or more connected outputs.
6. Select the recommended Common Timing (3) or another available common timing (4).
7. Click SHOW EDIDs (5). Only the available EDIDs that match the resolution and refresh rate of the Common Timing selection appear (see figure 74 on page 72).

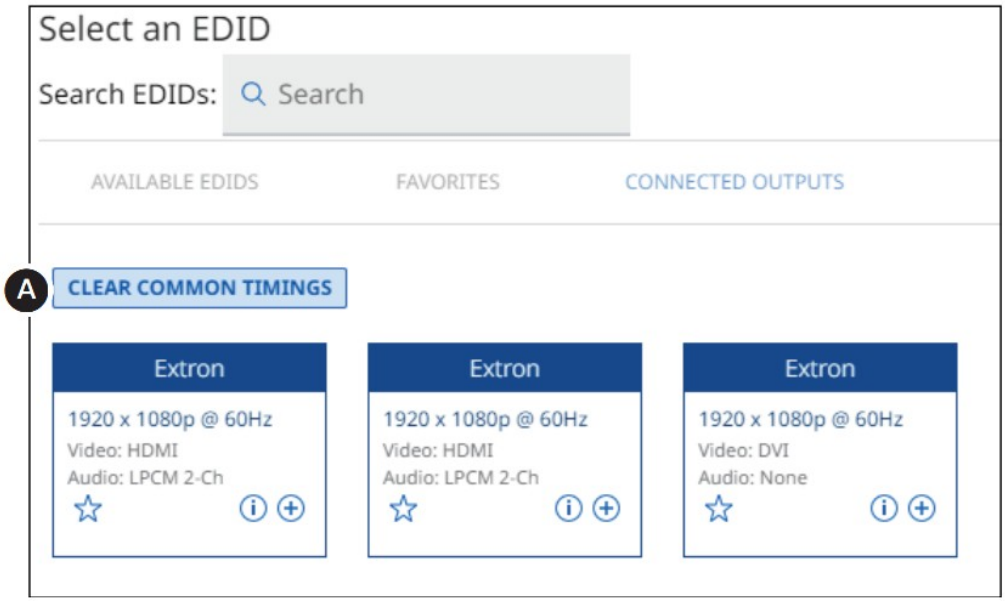


Figure 74. Display of Common Timings

8. Assign the desired EDID to one of more encoders (see Assign an EDID to an input, beginning at step 3 on page 64).

TIP: Click CLEAR COMMON TIMINGS (see figure 74, A) to clear the list.

WINDOWALLS Page
Creating a video wall is a multi-step process consisting of the following procedures:

NOTE: The list below presents a logical flow of operations; many of these operations can be performed in any order.

- Create a canvas (see “Creating a canvas”).
- Configure all decoders in the canvas (see Configuring canvas decoders on page 75).
- Configure the mullion, the space around each display within the canvas (see Configuring the mullions on page 76).
- Create presets (see Creating WindoWall windows and presets on page 78). A preset can recall different canvas layouts. Once the layout is recalled, you can switch inputs to change input on certain windows in the layout. This function is so that you need not use presets just to change inputs.
- Recall a preset (make the matrix of inputs and outputs take effect (see Recalling WindoWall presets on page 79).

Creating a canvas
Create a matrix of displays and assign decoders as follows:

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click WINDOWALLS (see figure 75, 1).

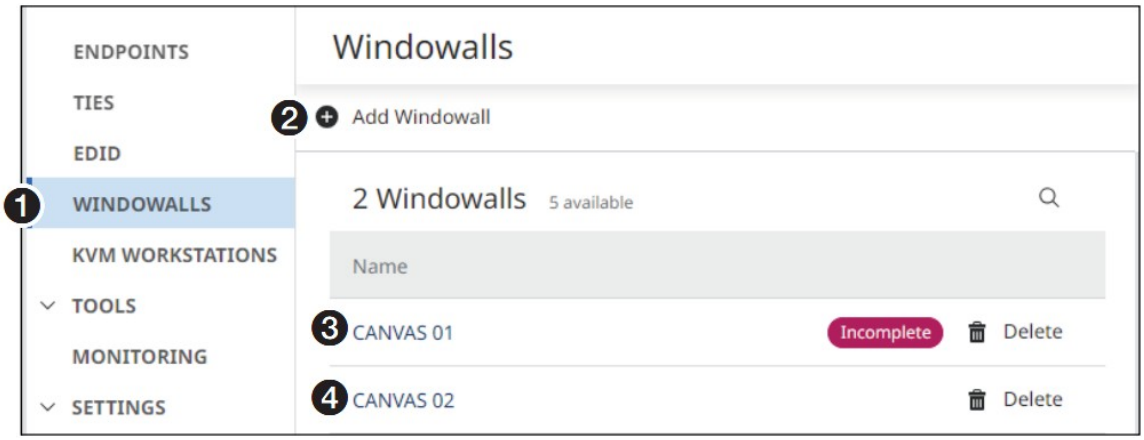


Figure 75. Opening the Canvas Configuration Pane and Selecting a Canvas

3. Click among:
   • Add Windowall (2, to create a new canvas)
   • An incomplete canvas (3, to complete a canvas)
   • An existing and complete canvas (4, to make changes to a canvas)
   The Canvas CONFIGURATION pane opens (see figure 76 on page 74).

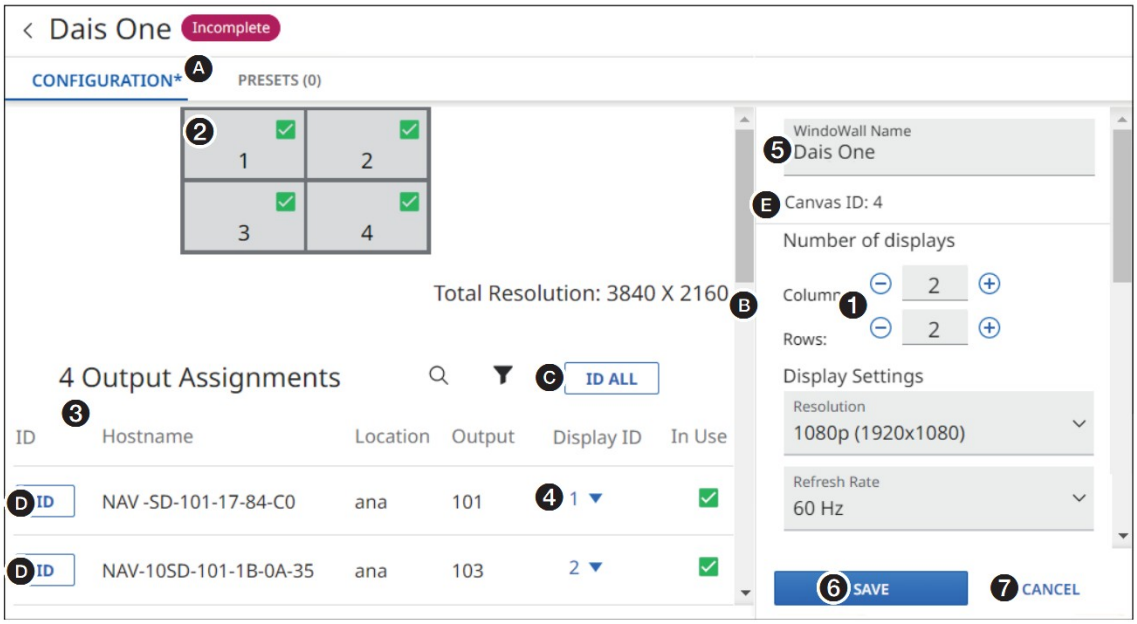


Figure 76. Canvas Configuration

4. Configure the size of the canvas (the number and arrangement of the displays) by clicking in the Columns and Rows fields in the canvas configuration pane (1) and editing them as desired (or click ⊕ or ⊖ to increment or decrement the field value). The valid range for both fields is from 1 to 8. The canvas view (2) shows the arrangement of the displays. The SAVE button (6) becomes available.

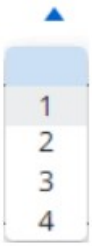
   NOTE: In the canvas view:

   • ✅ = indicates that a decoder has been assigned to a display.

   • ❓ = indicates that no decoder is assigned to the display.

   TIP: An asterisk **(A)** appears next to the CONFIGURATION tab to indicate that there are unsaved changes.

5. In the Output Assignment area (3), click the Display ID drop-down list (4) for one or more desired decoders to assign that decoder to the desired display within the canvas view. ❓ changes to ✅ for that display in the canvas view.



   TIPS:

   • If necessary, click and drag the left scroll bar (B) to display more decoders.

   • Click the blank space in the Display ID menu to unassign the decoder.

   • Use the ID function to help identify a decoder, to easily identify the display, and verify that the right decoder is selected, as follows:

   • Press and release the device ID button on the front panel of a decoder to highlight the ID field in the Output Assignment area (C). Press and release the button again to clear the highlight.

   • Click the ID button or ID All button (D) in the Output Assignment area to toggle the front panel ID LED and the on-screen display Status screen for an individual decoder or all decoders on and off.

6. If desired, highlight the Canvas Name field (5) and enter a custom name for the canvas.

   TIP: Each canvas has a Canvas ID (see figure 76, E on page 74) that identifies that canvas. If you need to reference a canvas from a control system, the canvas ID does not change, even if you have renamed the canvas.

7. Click SAVE (6) to save all changes or CANCEL (7) to abandon them.

Configuring canvas decoders

Configure all decoders in a canvas at once, so that they have the same settings, as follows:

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click WINDOWALLS (see figure 75, 1 on page 73).
3. If necessary, click the existing canvas to configure (3 or 4). The Canvas CONFIGURATION pane opens (see figure 77).

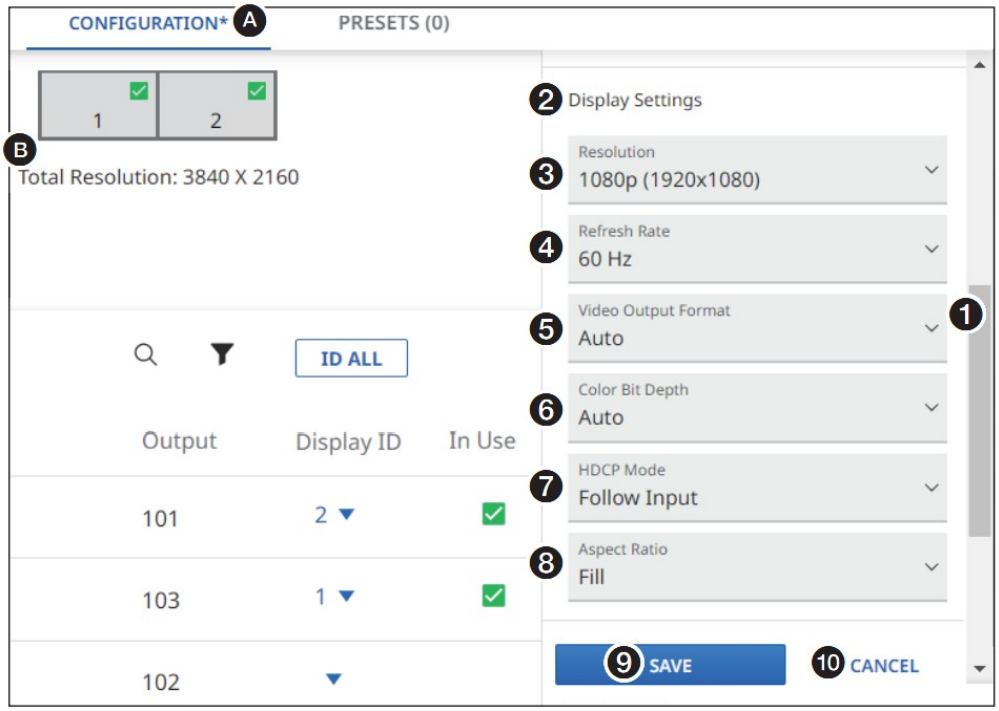


Figure 77. Configuring Canvas Decoders

4. If necessary, click and drag the right scroll bar (1) to reveal the Display Settings adjustments (2).
5. Make the following decoder adjustments, as necessary:

   TIP:

   An asterisk (A) appears next to the CONFIGURATION tab to indicate that there are unsaved changes.

   a. Click the Resolution drop-down list (3) to select among the resolutions presented to scale all outputs in the canvas to the desired output resolution.

   b. Click the Refresh Rate drop-down list (4) to select among the available rates for all outputs in the canvas.

   NOTES:

   • See the applicable decoder user guide, available at www.extron.com, for a detailed list of available output resolutions and rates.

   • The Total Resolution (B) displays the resolution of the entire canvas and changes as you make changes on the Resolution drop-down list.

   c. Click the Video Output Format drop-down list (see figure 77, 5 on page 75) to select among the available video output formats for all outputs in the canvas. Auto (if selected) follows the input format.

   NOTE: The decoders change their color space, chroma sampling and quantization parameters for compatibility with HDMI and DVI display devices.

   d. Click the Color Bit Depth drop-down list (6) to force all outputs in the canvas to 8-bit depth or Auto. Auto (if selected) communicates with the display to check its capabilities and sets the color bit depth accordingly.

   e. Click the HDCP Mode drop-down list (7) to select between Follow Input, Always Encrypt, and Disable

Authentication for all outputs in the canvas.

NOTE:

• Follow Input mimics the HDCP encryption state of the connected source.

• Alway Encrypt maintains the HDCP encrypted state with the output display device to improve system switching performance.

• Disable Authentication disables HDCP Authentication and encryption attempts with the connected sink devices, making the display behave as a non-HDCP compliant.

f. Click the Aspect Ratio drop-down list (8) to select between Follow (no scaling, maintain the aspect ratio of the input video) or Fill (scale the output to fill the connected display) for all outputs in the canvas.

6. Click SAVE (9) to save all changes or CANCEL (¢) to abandon them.

Configuring the mullions

Configure all decoders in a canvas at once, so that they have the same settings, as follows:

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click WINDOWALLS (see figure 75, 1 on page 73).
3. If necessary, click the existing canvas to configure (3 or 4). The Canvas CONFIGURATION pane opens (see figure 78 on page 77).

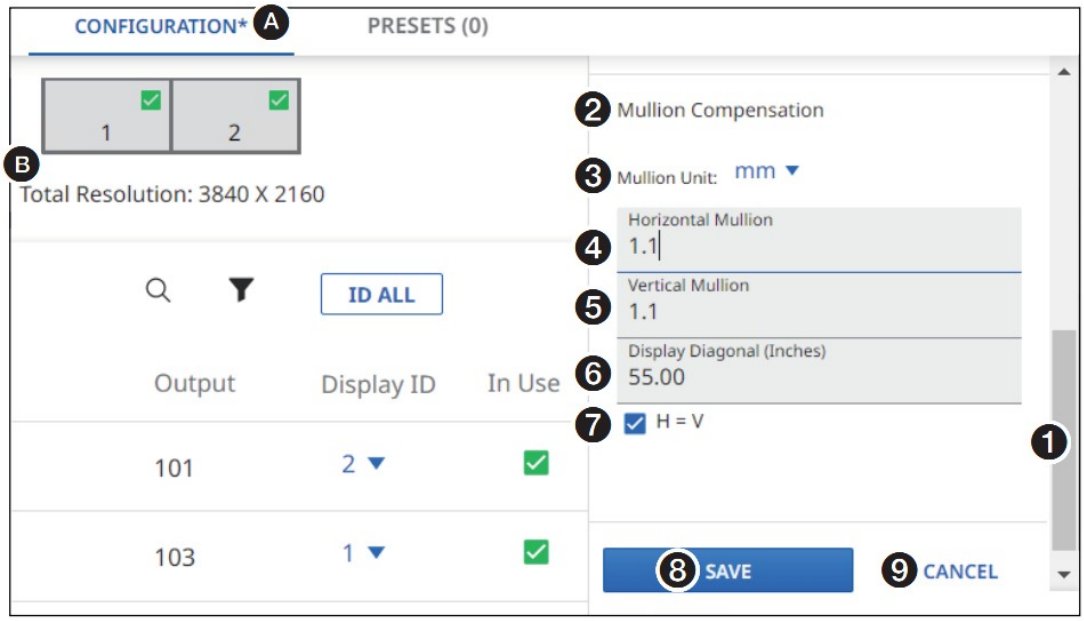


Figure 78. Configuring Mullions

4. If necessary, click and drag the right scroll bar (see figure 78, 1) to reveal the Mullion Compensation adjustments (2).
5. Make the following mullion adjustments, as necessary:

   NOTE: After any change, an asterisk (A) appears in the CANVAS tab to indicate the unsaved changes.

   a. Click the Mullion Unit drop-down list (3) to select among in (inches), mm, or pixels as the measurement unit used for the horizontal and vertical mullions (4 and 5).

   b. Click in the Horizontal Mullion field (4) and enter a numeric value of the width of the side bezels of the displays used on your NAV WindoWall.

   c. Click in the Vertical Mullion field (5) and enter a numeric value of the width of the top and bottom bezels of the displays used on your NAV WindoWall.

   NOTES:

   • In these fields, mullions are detailed to the 2nd decimal point (n.nn) for inches and mm and whole numbers

only for pixels.

• If H = V (see 7) is checked, Horizontal Mullion and Vertical Mullion are locked to each other; a change in one changes the other to the same value.

• Changes made in the Horizontal Mullion and Vertical Mullion fields are graphically represented in the canvas view (B).

d. Click in the Display Diagonal field (6) and enter the diagonal dimension of the displays used in your NAV WindoWall.

NOTES:

• The Display Diagonal is always expressed in inches.

• The Display Diagonal is unavailable if Pixels is selected in the Mullion Unit field (3).

e. Click the H = V checkbox (7) to toggle the Horizontal Mullion and Vertical Mullion fields lock on and off. When checked the two fields are to each other; a change in one changes the other to the same value.

6. Click SAVE (8) to save all changes or CANCEL (9) to abandon them.

Creating WindoWall windows and presets

Once you have created and configured one or more canvases, it may be helpful to create presets that quickly recall a specific canvas and associated encoders. Create one or more NAV WindoWall presets (up to eight presets per canvas) as follows:

NOTE: This procedure assumes that you have created a canvas (see Creating a canvas on page 73).

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click WINDOWALLS (see figure 75, 1 on page 73).
3. If necessary, click the existing, completed canvas to configure (4). The Canvas CONFIGURATION pane opens (see figure 77 on page 75).
4. Click the Preset tab (see figure 79, 1) The Presets tab opens.
5. If necessary, select (click) the Inputs tab (2).

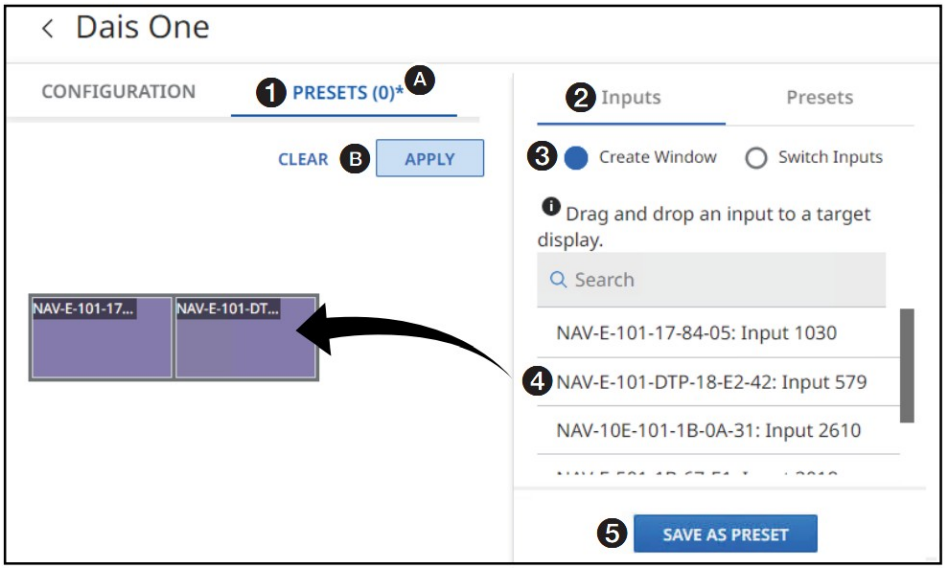


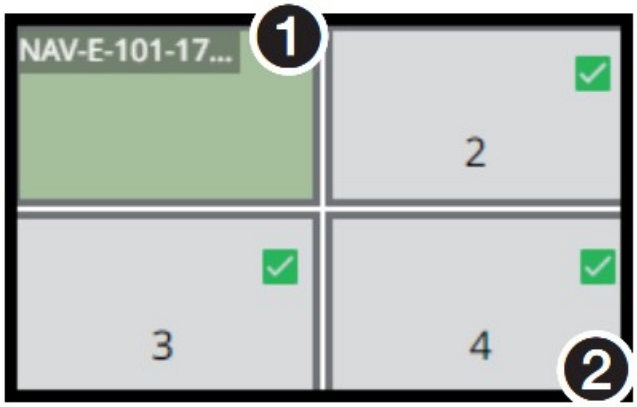
Figure 79. Creating a WindoWall Preset

6. If necessary, select (click) the Create Window radio button (3).
7. Drag and drop one or more encoders to the desired cells in the canvas view (4).

NOTES:

• Once you have dragged-and-dropped, you can create and resize the windows in the canvas to incorporate multiple displays. Click the input you just placed in the canvas view. The view of the window in the canvas now

has a thick black border (1, at right). Use the cursor to size the window border (2) and click again to keep that size.



• If you create multiple windows within the canvas, they are named with sequential numbers by default (Window 1, Window 2, and so on).

• Windows on the canvas can spread over multiple displays, but two windows cannot share a display.

• After any change, an asterisk (figure 79, A) appears in the CANVAS tab to indicate the unsaved changes.

• If you click APPLY (B), you switch all outputs in the canvas to the layout you have prepared without creating a preset. You cannot recall an applied WindoWall.

8. Click SAVE AS PRESET (5). The Save Preset pane opens (see figure 80 on page 79).

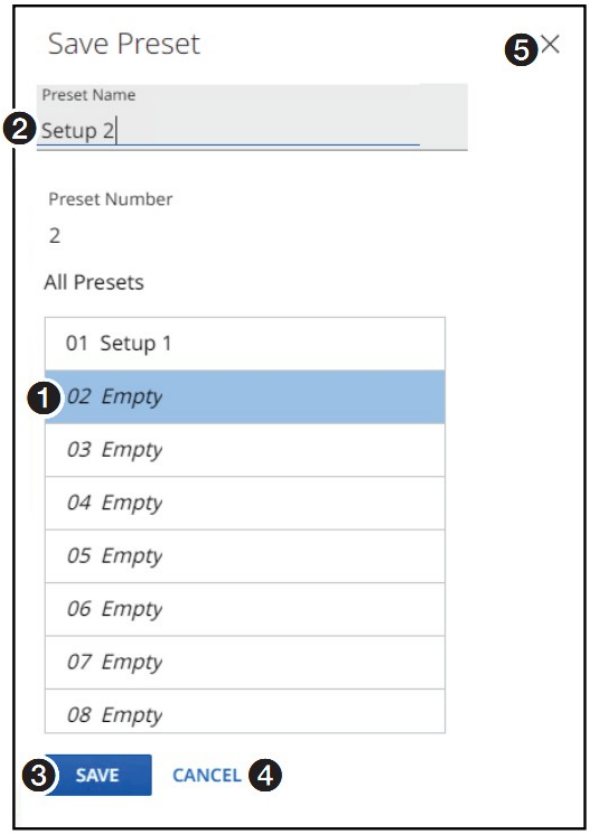


Figure 80. Saving a WindoWall Preset

9. Select a preset number (see figure 80, 1).

   NOTE: If you select a preset that is already used, that preset will be overridden.

10. Enter a preset name (2).
11. Click SAVE (3) to save the preset or CANCEL (4) to abandon the preset.
12. Click X (5) to close the Save Preset pane.

Recalling WindoWall presets

Once you have created a WindoWall preset, you need to recall it in order for it to take effect (making all of the

preset ties). Recall a preset as follows:

1. On the WINDOWALLS > Presets pane, click the Presets tab (see figure 81, 1).

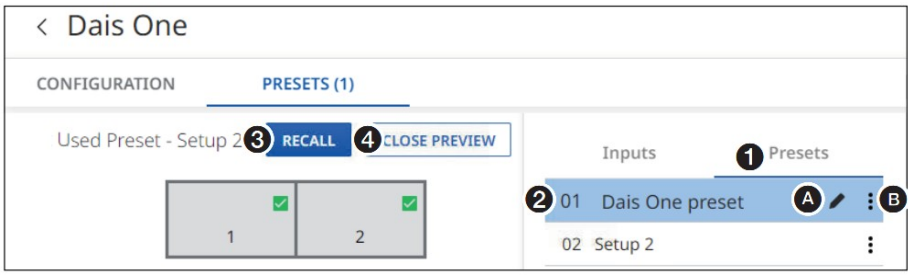


Figure 81. Recalling a WindoWall Preset

2. Click the desired Preset (2).

   NOTE: The selected preset includes tools (see figure 81, A and B, on pge 79) for renaming, editing, and deleting presets (see below).

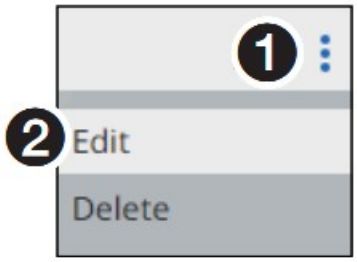
3. Click RECALL (3) to recall the preset or CLOSE PREVIEW (4) to abandon the recall.

Renaming a WindoWall preset

1. Click the pencil icon (see figure 81, A).
2. Type the new name in the Name field (see 1 at right).
3. Click the Check icon (2) to save the name or X (3) to abandon it.

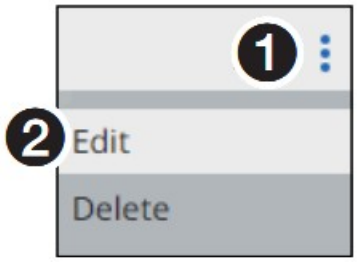
Editing a WindoWall preset

1. Click the Menu icon (1, at right) > Edit (2). The window returns to a display similar to figure 80 on page 79.
2. Perform Creating WindoWall presets on page 78.



Deleting a WindoWall preset

1. Click the Menu icon (1, at right) > Delete (2). The window prompts you to confirm that you want to delete the preset.
2. Click DELETE to confirm or CANCEL to abandon the deletion.



Switching preset inputs
You can also switch inputs to the NAV WindoWall from the Presets page, as follows:

1. Recall a preset (see Recalling WindoWall presets on page 79).
2. Click Switch Inputs (see figure 82, 1).
3. Drag and drop one or more encoders to the desired cells in the canvas display (2).

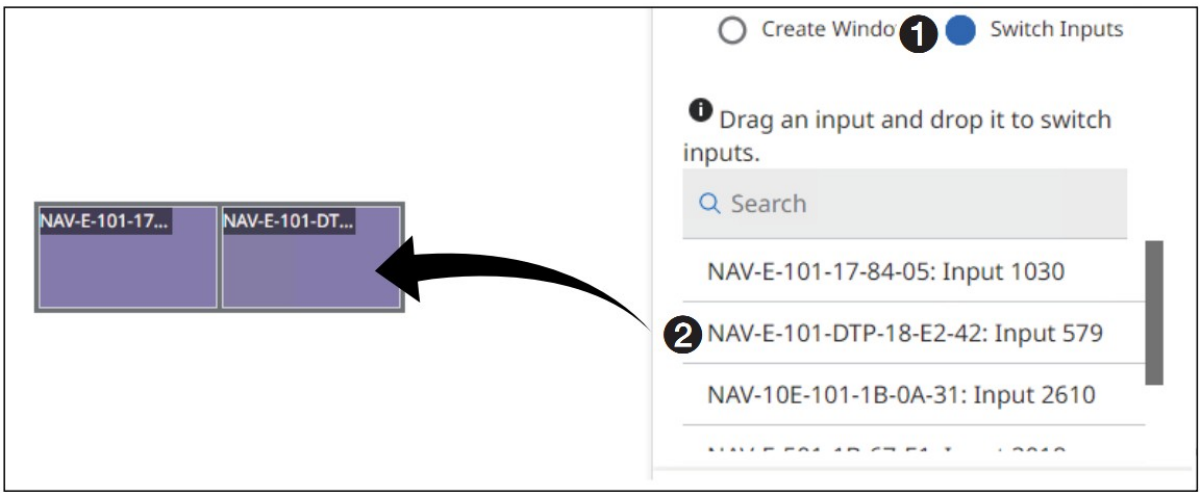


Figure 82. Switching Preset Inputs

TIPS:

- You can use a control system to recall a preset, and then you can switch inputs via the control system as well.
- The switch happens immediately as you drop the dragged input (release the mouse button).

KVM WORKSTATIONS Page
Creating a KVM workstation is a multi-step process consisting of the following procedures:

1. Create a workstation and assign the USB focus (see “Creating a KVM workstation”).

   NOTE: See the following prerequisites:

   • Encoders —

   • Must be NAV 5nn models.

   • USB device class filtering must be set to HID only (see Configure the USB settings on page 55).

   • Connect USB cable between host and endpoint.

   • Decoders —

   • Must have at least one NAV 5nn model.

   • USB device class filtering must be set to HID only (see Configure the USB settings).

   • Displays — All must have the same maximum supported resolution.

   • PC or other source — Sleep setting: Hibernate must not be used, disable if possible.

2. Create presets (see Creating KVM presets on page 85). A preset can recall a set of inputs that is grouped together and are arranged in a specific workstation display layout.

Creating a KVM workstation

Create and configure a workstation as follows:

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click KVM WORKSTATIONS (see figure 83, 1).

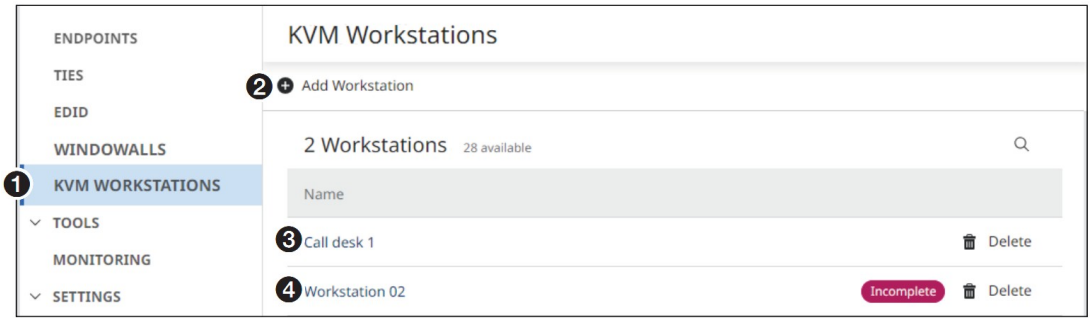


Figure 83. Opening the Workstation Configuration Pane and Selecting a Workstation

3. Click among:
   - Add Workstation (2, to create a new workstation)
   - An existing and complete workstation (3, to make changes to a workstation)
   - An incomplete workstation (4, to complete a workstation)

   The Workstation CONFIGURATION pane opens (see figure 84 on page 82) with Output Assignment (A) selected.
4. Click in the Workstation Name field (1) and enter a custom name for KVM workstation being configured in the Workstation Configuration pane.

   NOTE: After any change, an asterisk (B) appears in the CONFIGURATION tab to indicate the unsaved changes.

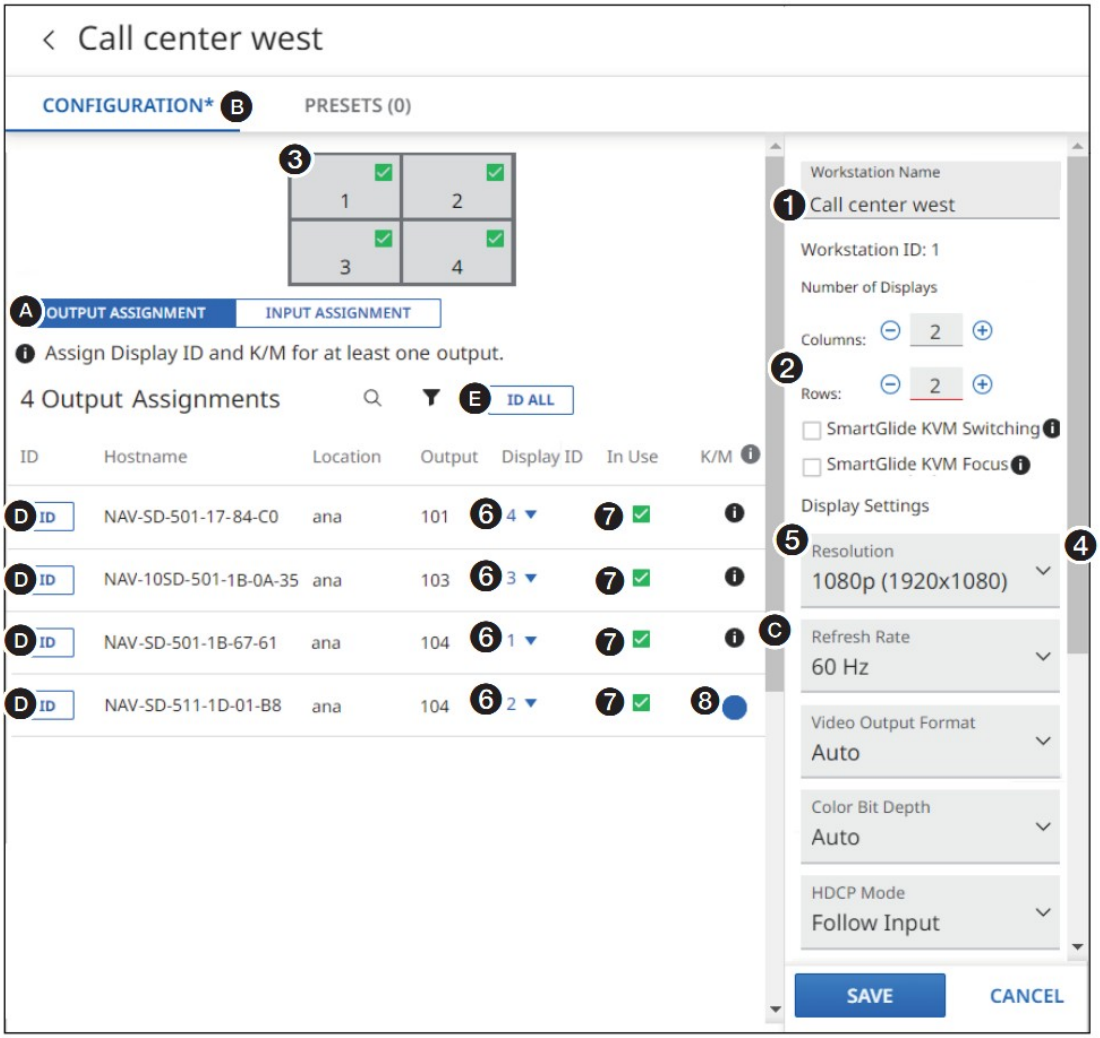


Figure 84. Workstation Configuration

5. Configure the size of the workstation (the number and arrangement of the displays) by clicking in the Columns and Rows fields in the workstation configuration pane (see figure 84, 2) and editing them as desired (or click ⊕ or ⊖ to increment or decrement the field value). The valid range is 4 Columns and 2 Rows. The canvas view (3) shows the arrangement of the displays.
6. If necessary, click and drag the right scroll bar (4) to reveal the Display Settings adjustments (5).
7. Make the following display adjustments, as necessary:

   a. Click the Display Settings > Resolution drop-down list to select among the resolutions presented to scale all outputs (decoders) in the KVM workstation to the desired output resolution.

   b. Click the Display Settings > Refresh Rate drop-down list to select among the available rates for all outputs (decoders) in the KVM workstation.

   NOTE: See the applicable decoder user guide, available at www.extron.com, for a detailed list of available output resolutions and rates.

   c. Click the Display Settings > Video Output Format drop-down list to select among the available video output formats for all outputs (decoders) in the KVM workstation. Auto (if selected) follows the input format.

   NOTE: The decoders change their color space, chroma sampling and quantization parameters for compatibility with HDMI and DVI display devices.

   d. Click the Display Settings > Color Bit Depth drop-down list (see figure 84, 5 on page 82) to force all outputs in the KVM workstation to 8-bit depth or Auto. Auto (if selected) communicates with the display to check its capabilities and sets the color bit depth accordingly.

   e. Click the HDCP Mode drop-down list to select between Follow Input, Always Encrypt, and Disable Authentication for all outputs in the workstation.

NOTE:

• Follow Input mimics the HDCP encryption state of the connected source.

• Alway Encrypt maintains the HDCP encrypted state with the output display device to improve system switching performance.

• Disable Authentication disables HDCP Authentication and encryption attempts with the connected sink devices, making the display behave as a non-HDCP compliant.

8. Click the Display ID drop-down list (6) for one or more desired decoders to assign that decoder to the desired display within the workstation display layout. In Use ? changes to ✓ for that display (7) in the layout.

NOTES:

• A KVM workstation can have up to four decoders associated with it.

• In the Output Assignment area:

• ✓ = indicates that a decoder has been assigned to a display.

• ? = indicates that no decoder is assigned to the display.

TIPS:

• If necessary, drag the left scroll bar (C) to display additional decoders.

• Click the blank space in the Display ID menu to unassign the decoder.

• Use the ID function to help identify a decoder to easily identify the display and verify that the right decoder is selected, as follows:

• Press and release the device ID button (D) on the front panel of a decoder to highlight the ID field in the Output Assignment area. Press and release the button again to clear the highlight.

• Click the ID button or ID All button (E) in the Output Assignment area to toggle the front panel ID LED and the on-screen display for an individual decoder or all decoders on and off.

9. Select K/M (8) for the decoder that is to be primary in the workstation. The primary decoder must have a keyboard and mouse connected.

NOTES:

• Only one decoder can be primary and have K/M selected.

• Only the primary decoder should have a physically connected keyboard and mouse.

• The primary decoder must have USB enabled and its device class filtering set to HID only (see Configure the USB settings on page 55.

• The K/M radio button is unavailable for selection if the USB is disabled on the NAV 5nn decoder or if the device class filtering is not set to HID only.

• The K/M column displays ⓘ if the decoder is not in the NAV 5nn series.

• You cannot Save the configuration (see step 12 on page 84) unless one K/M decoder is selected.

10. Click INPUT ASSIGNMENT (see figure 85, 1). The workstation display layout shows all encoders in your NAV system.

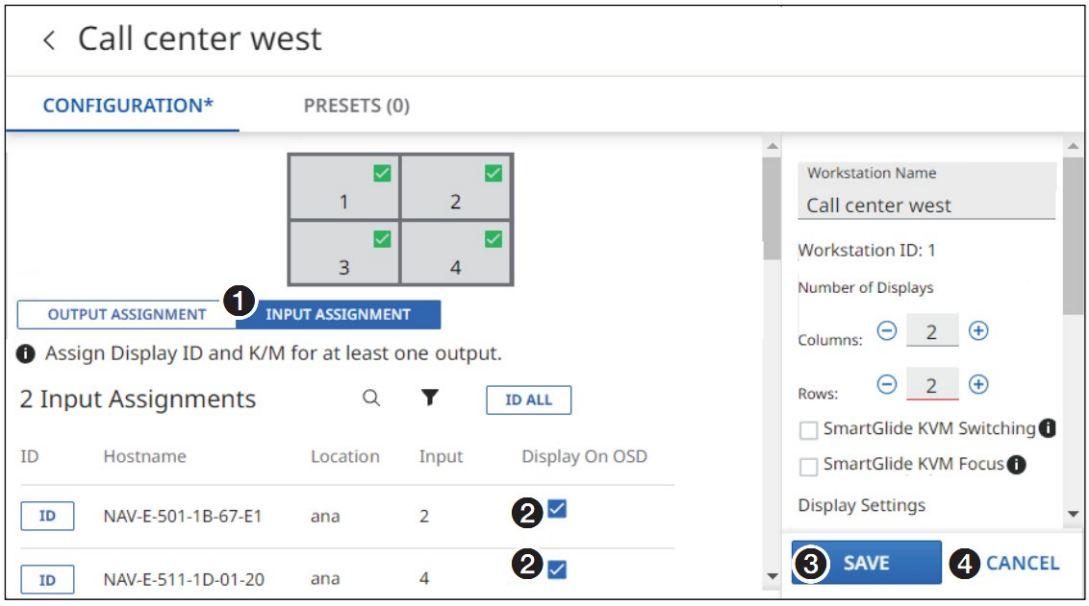


Figure 85. Workstation Configuration, Input Assignment

11. Click Display On OSD for one or more encoders (see figure 86, 2) to make them available in the workstation on-screen display as a selectable input (see Normal workstation operation and taking control on page 89).

    NOTE: A KVM workstation can have up to 50 encoders associated with it.

12. Click SAVE (3) to save all changes or CANCEL (4) to abandon them.

Creating KVM presets

Once you have created and configured one or more KVM workstations, you may find it helpful to create presets to allow you to quickly recall a multiple tie switch. Create one or more KVM workstation presets (up to 30 presets per workstation) as follows:

1. If necessary, click the Menu icon (, see figure 9, 1 on page 11).
2. If necessary, click KVM Workstations (see figure 83, 1 on page 81).
3. If necessary, click the existing, completed canvas to configure (4). The Workstation CONFIGURATION pane opens (see figure 84 on page 82).
4. Click the Preset tab (see figure 86, 1). The Presets tab opens.

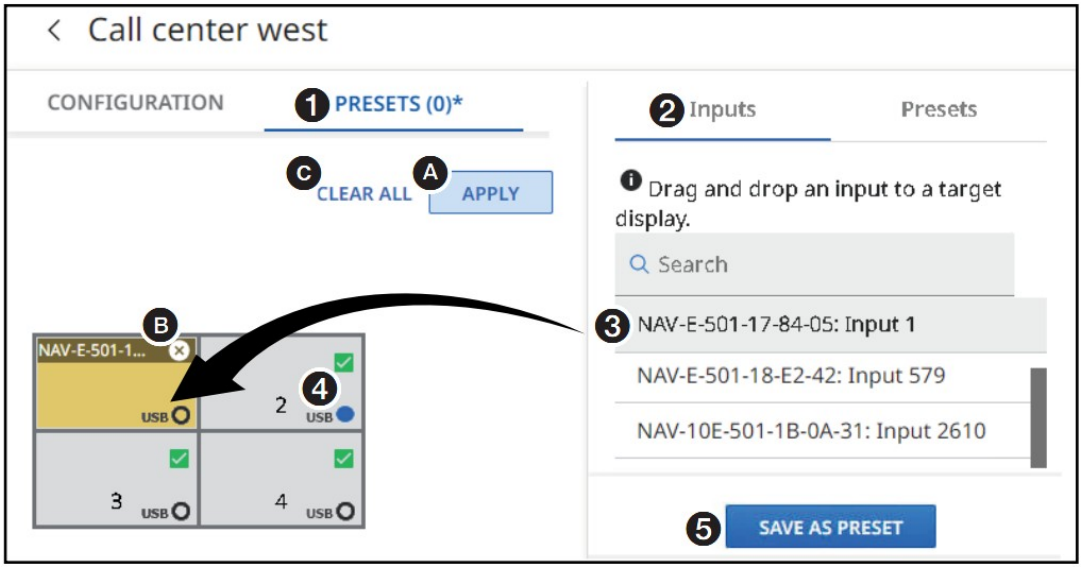


Figure 86. Creating a KVM Preset

5. If necessary, select (click) the Inputs tab (2).
6. Drag and drop encoders into the workstation display layout as desired (3).

    TIPS:

• To verify that the preset you are creating, click Apply (A). The workstation monitors display the selected sources. Although there is no indication on the Workstation Presets page, ties are indicated on the Ties page (see Ties page and figure 60 on page 61).

• To clear an encoder from the window, click ⊠ in the dragged-and-dropped encoder (B).

• To clear all encoders, click CLEAR ALL (C).

7. Click in the desired USB radio button (4) to specify which encoder you want keyboard and mouse (USB) control of when you recall the preset.
8. Click Save as Preset (5). The Save Preset pane opens (see figure 87 on page 86).

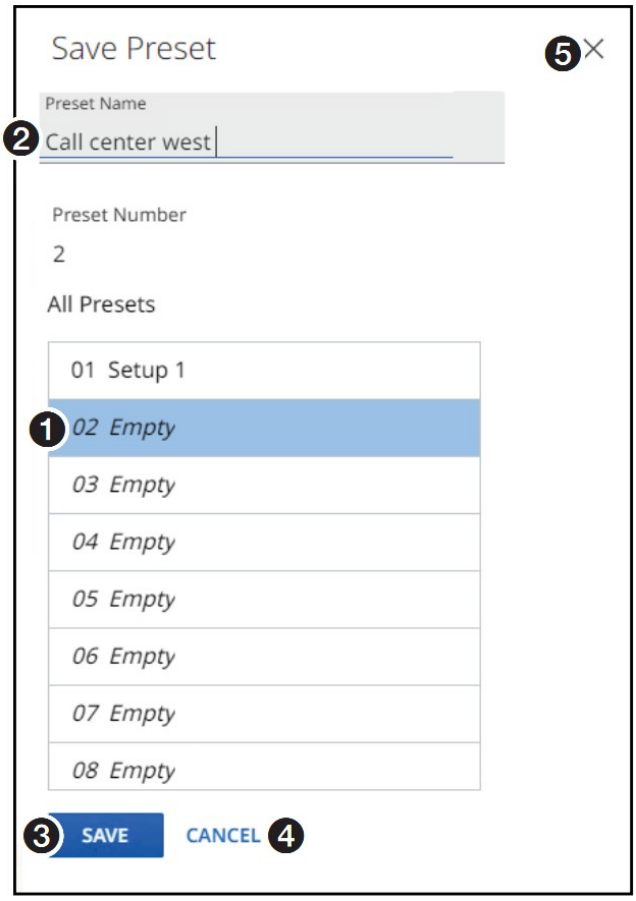


Figure 87. Saving a KVM Preset

9. Select a preset number (see figure 87, 1).

   NOTE: If you select a preset that is already used, that preset is overridden.
10. Enter a preset name (2).
11. Click SAVE (3) to save the preset or CANCEL (4) to abandon the preset.
12. Click X (5) to close the Save Preset pane.

Recalling KVM presets

Once you have created a KVM preset, you need to recall it in order for it to take affect (executing video, audio, and USB ties for some or all of the decoders that support the workstation). Recall a preset as follows:

1. On the KVM WORKSTATIONS > Presets page, click the Presets tab (see figure 88, 1).

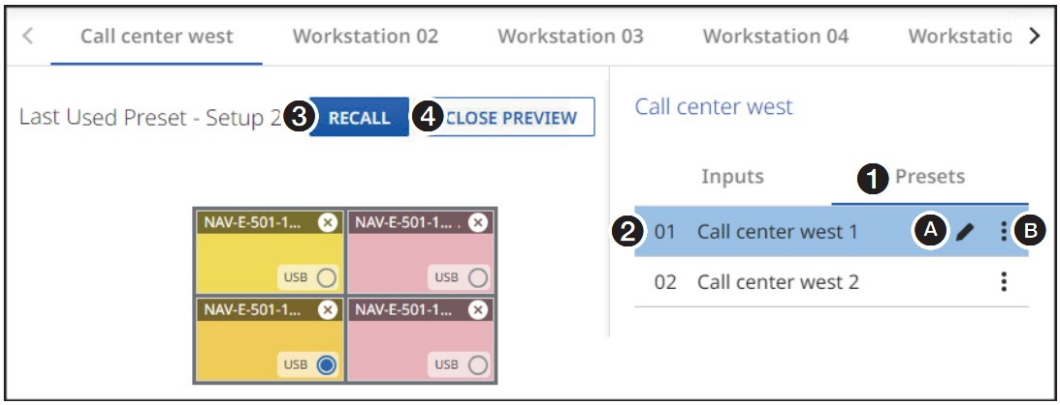


Figure 88. Recalling a Preset

2. Click the desired Preset (2).

   NOTE: The selected preset includes tools (A and B) for renaming, editing, and deleting presets (see below).

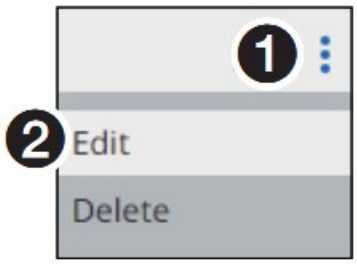
3. Click Recall (3) to recall the preset or Close Preview (4) to abandon the recall.

Renaming a preset

1. Click the pencil icon (see figure 88, A).
2. Type the new name in the Name field (see 1 at right).
3. Click the Check icon (2) to save the name or X (3) to abandon it.

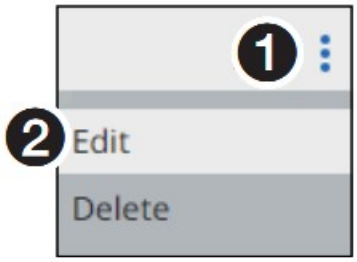
Editing a preset

1. Click the Menu icon (1, at right) > Edit (2). The window returns to a display similar to figure 86 on page 85.
2. Perform Creating KVM presets on page 85.



Deleting a preset

1. Click the Menu icon (1, at right) > Delete (2). The window prompts you to confirm that you want to delete the preset.
2. Click DELETE to confirm or CANCEL to abandon the deletion.



SmartGlide KVM and SmartGlide KVM Focus
A KVM workstation has two features available that simplify the workstation environment:

- SmartGlide KVM switching – Provides the ability to easily switch USB ties between a group of inputs, by moving the mouse from display to display.
  NOTE: When SmartGlide KVM switching is enabled, selecting the same encoders across multiple workstations is not supported.
- SmartGlide KVM focus – A grey, active border that shows on the workstation display. The border indicates the current USB focus.

Enable one or both of these features as follows:

1. On the Workstation Configuration screen, click SmartGlide KVM Switching (see figure 89, 1)

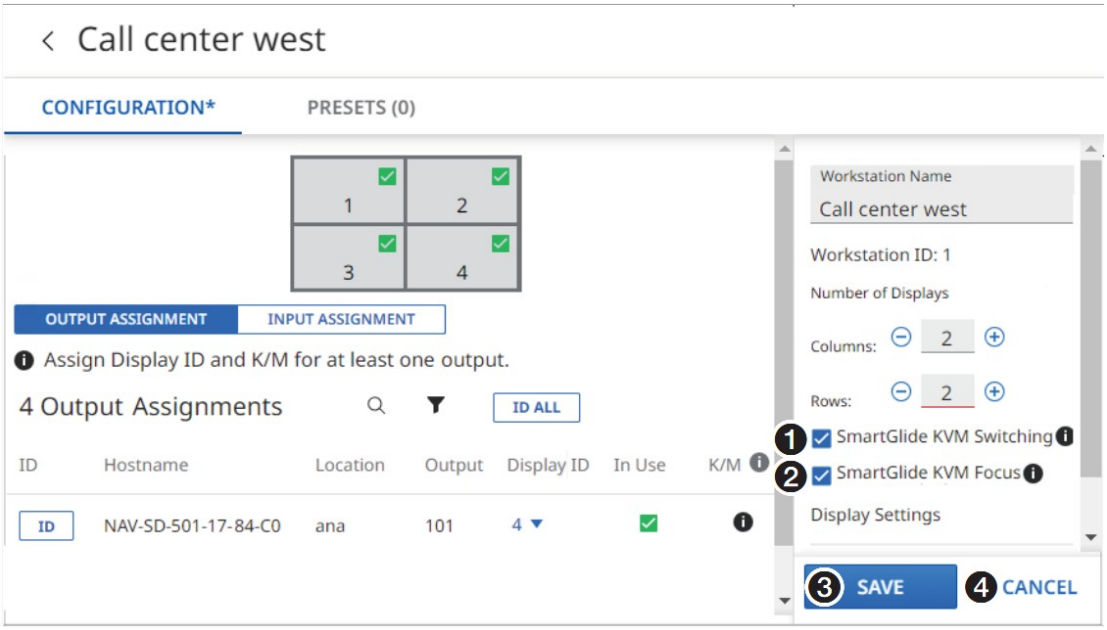


Figure 89. Selecting SmartGlide KVM and SmartGlide KVM Focus

NOTE: The KVM workstation must have two or more configured displays for Smart KVM switching to be available for selection.

2. If desired, click SmartGlide KVM Focus (2).
3. Click SAVE (3) to save the Smart KVM changes or CANCEL (4) to abandon them.

Normal workstation operation and taking control
The decoder that you selected as K/M during the workstation configuration (see Creating a KVM workstation, step 9 on page 83) can display the workstation configuration in an OSD on the display to which it is connected. The OSD (see figure 90) is activated using the following hot key combination: <Ctrl> <Ctrl>+<{letter}O>. Figure 90 shows the pop-up on-screen display and the workstation elements that are shown on the display.

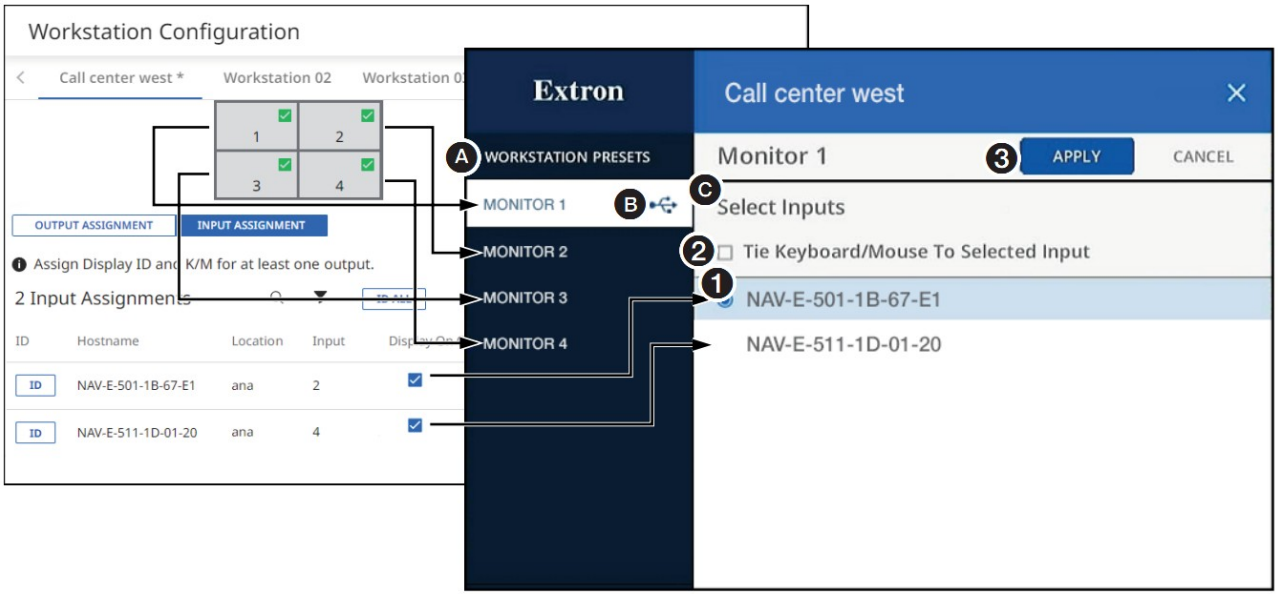
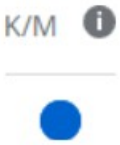


Figure 90. Pop-up On-screen Display and Workstation Elements

The Workstation Presets side pane (A), shows workstation presets that have been created for the KVM workstation (see Creating KVM presets on page 85 and makes them available for selection). The USB icon (B) shows which workstation display had K/M selected in the configuration process (see Creating a KVM Workstation on page 81). This is also the decoder to which the keyboard and mouse must be connected.



The Select Inputs pane (C) shows the source encoders configured (see figure 85, 2 on page 84) and made available as selectable inputs on this workstation by the Display on OSD checkbox.
Display an input (encoder) and, if desired, take USB control of it as follows:

1. Click the input that you desire to view (1).
2. If desired to gain USB control of the selected input, click Tie Keyboard/Mouse To Selected Input (2).
3. Click Apply (3).

NOTES:

- The mouse cursor is constrained to within the on-screen display boundaries when the display is open.
- The on-screen display close after 30 seconds of mouse inactivity.

  TIP: Press the computer <Esc> key to manually close the display.

Tools Pages

The Device Tools page provides NAVigator-only tools. The System Tools provides tools for the NAVigator and all assigned endpoints. The two pages provide the following functions:

- Backup — You can make backup files for just the NAVigator itself (see “Backing up the NAVigator,” below) or for the entire NAV system (including one or more or selected endpoints) (see Backing up the system on page 96). Backup files contain configuration settings and communications settings for all devices included in a backup.
- Restore — You can restore the configuration settings, communications settings or both, to their condition when the backup file was created for just the NAVigator (see Restoring the NAVigator on page 91) or to the NAV system (including one or more or selected endpoints) (see Restoring the system configuration on page 97).

- Firmware — From time to time, firmware updates will be made available on the Extron website. You can upgrade firmware for just the NAVigator (see Upgrading the NAVigator firmware on page 93 or firmware for NAV system (including one or more or selected endpoints) (see Upgrading the system firmware on page 105).
- Reset (Device Tools only) — You can reset or reboot the NAVigator (see Resetting the NAVigator on page 95).

The Diagnostic Tools page provides tools that allow you to troubleshoot the connection to other units on the NAV network (see Diagnostic Tools page page on page 23).

Device tools page
Backing up the NAVigator

Backup the NAVigator settings as follows:

1. If necessary, click the Menu icon (see figure 91, 1).

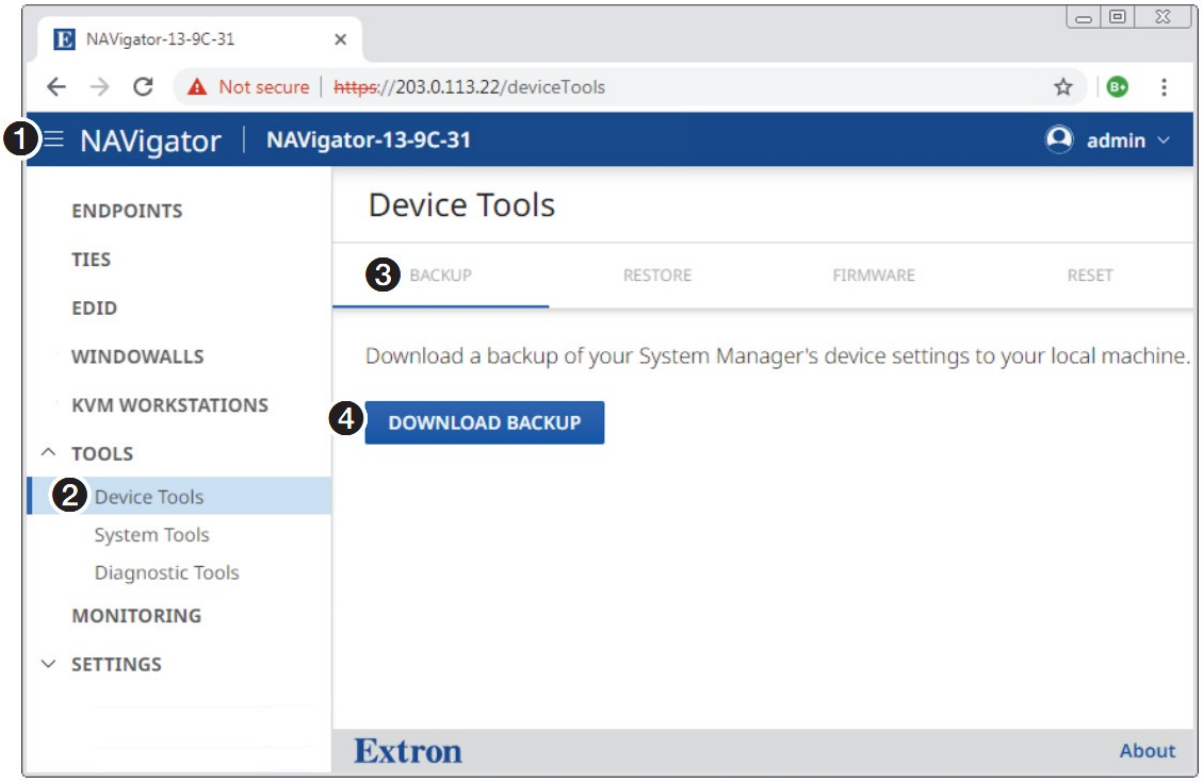
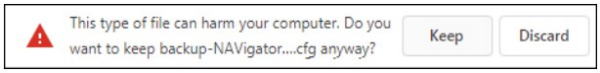


Figure 91. Opening the Device Backup Page

2. If necessary, click TOOLS > Device Tools (2). The Device Tools page opens.
3. If necessary, click Backup (see figure 91, 3 on page 90).
4. Click DOWNLOAD BACKUP (4). The NAVigator creates a file of current settings and, depending on your browser, may prompt you to confirm that you want to save **it.**



NOTE: Unless otherwise directed, the NAVigator backup file goes to the Downloads folder of the connected PC.

5. Click Keep to save the file to the Downloads folder or Discard as desired.

Restoring the NAVigator
Restore the NAVigator settings as follows:

1. If necessary, click the Menu icon (see figure 92, 1).

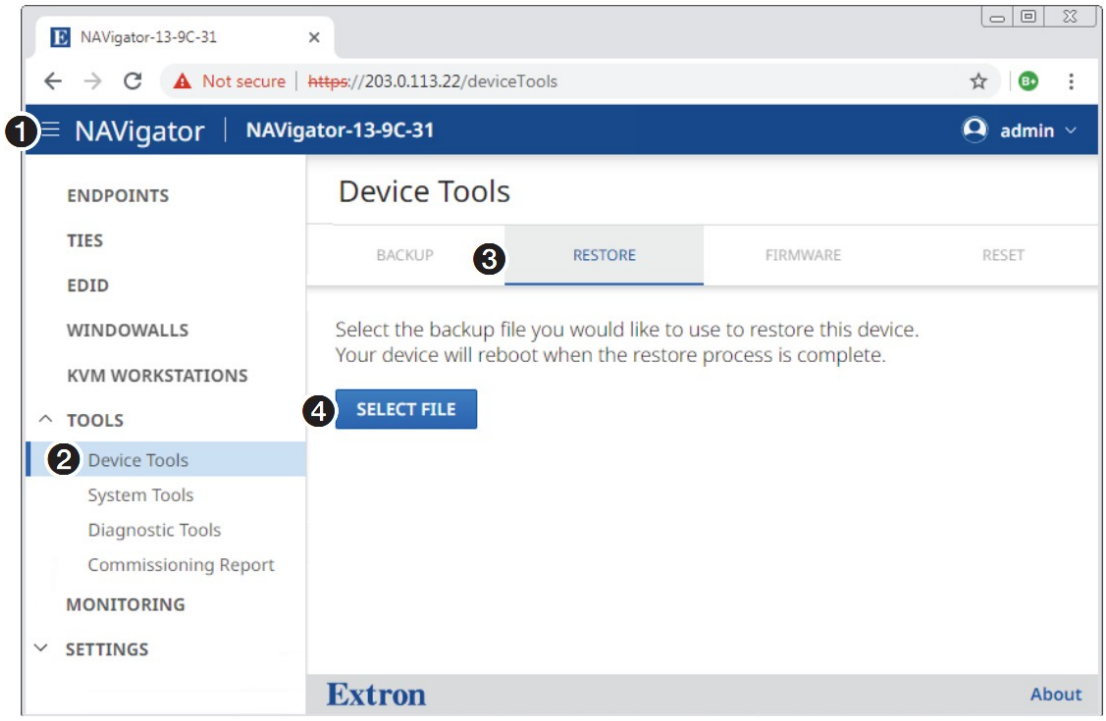


Figure 92. Opening the Restore Configuration Page

2. If necessary, click TOOLS > Device Tools (**2**). The Device Tools page opens.
3. If necessary, click RESTORE (**3**).
4. Click SELECT FILE (**4**). An Open dialog box opens (see figure 93 on page 92).

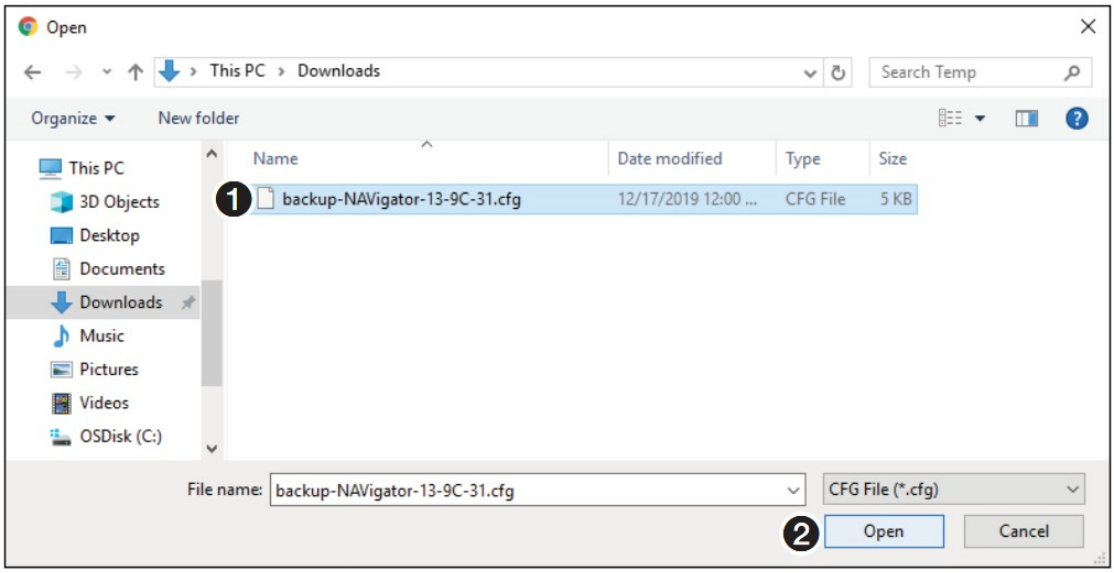


Figure 93. Open Dialog Box

5. Navigate to the folder where the backup file is saved (typically the Downloads folder) (see figure 93, 1). Select the file.
6. Click Open (2). The Device Tools page returns to the top (see figure 94).

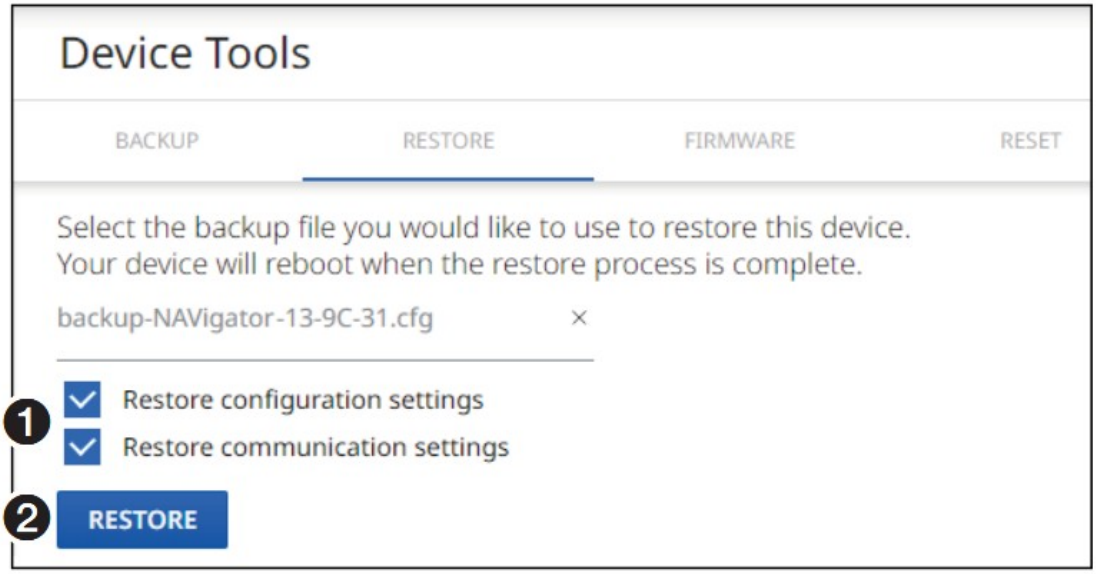


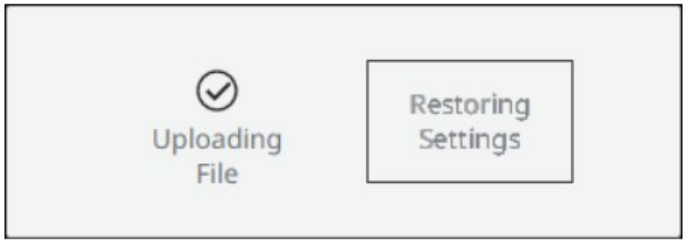
Figure 94. Device Tools — Restore Function

7. Select (click) the settings to restore (see figure 94, 1).

Communication settings	Configuration settings	
Settings > General > Device Details (name)	Settings > General > Device Details (location)	KVM Workstation > Workstations 1-30
Settings > Networking > Network Connection	Settings > General > Date and Time	KVM Workstation > Workstations > Presets 1-30
Settings > Advanced > Advanced Networking	Settings > Advanced > Advanced Networking	Monitoring > Alarm Settings
Monitoring > Control Sytem (paired)	EDID > Custom and Favorites	
	WindoWall > Canvas 1-8	
	WindoWall > Presets 1-8	

* Restore Communication Settings and Restore Configuration Settings must both be checked.

8. Click RESTORE (see figure 94, 2 on page 92).
   The NAVigator reports that it is uploading the backup file and then that is restoring the settings. When the operation completes, the NAVigator reboots.



NOTE: To continue to operate the NAVigator, you must reconnect (see Opening the Embedded HTML Pages on page 9).

Upgrading the NAVigator firmware

Upgrade the NAVigator firmware, the built-in software that controls NAVigator operation, as follows:

NOTES:

- See Download a firmware or software package on page 145 to obtain the firmware package.
- Upgrading the NAVigator firmware results in the unit rebooting.
- Before upgrading, create a backup of the system in good working condition and name accordingly. This ensures that if the upgrade process fails, the system can be restored to a working condition.
- Before upgrading, read the release notes for any specific requirements.
- Backup files are not compatible between firmware versions.

1. If necessary, click the Menu icon (see figure 95, 1).

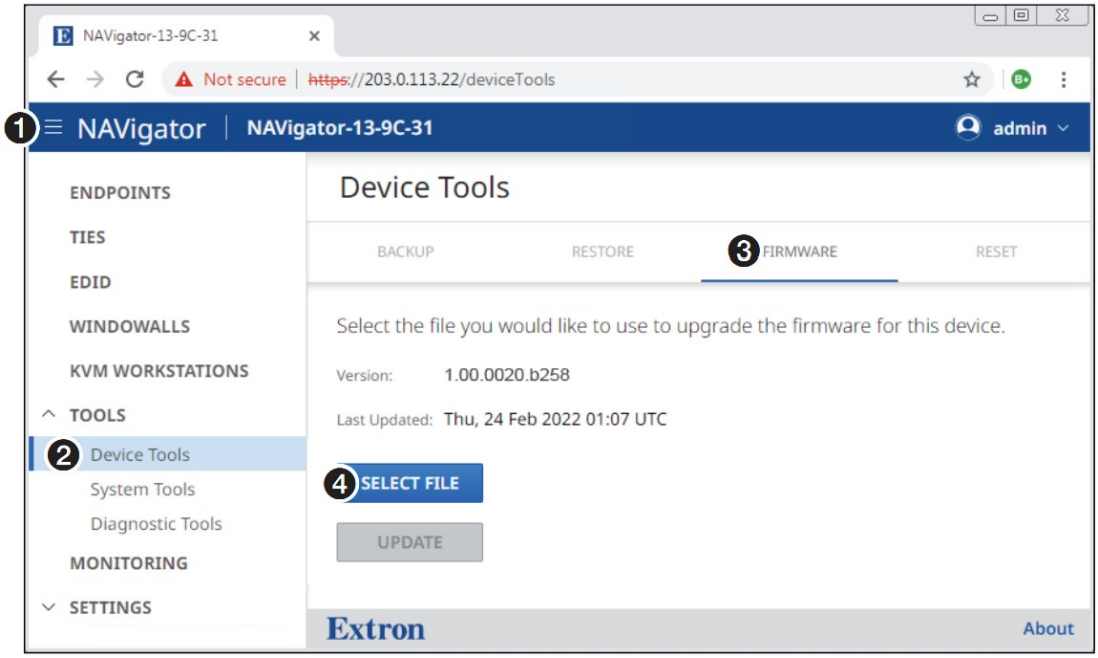


Figure 95. Device Firmware Upload Page

2. If necessary, click TOOLS > Device Tools (see figure 95, 2 on page 93).
3. Click FIRMWARE (3).
4. Click SELECT FILE (4). An Open dialog box opens (see figure 96).

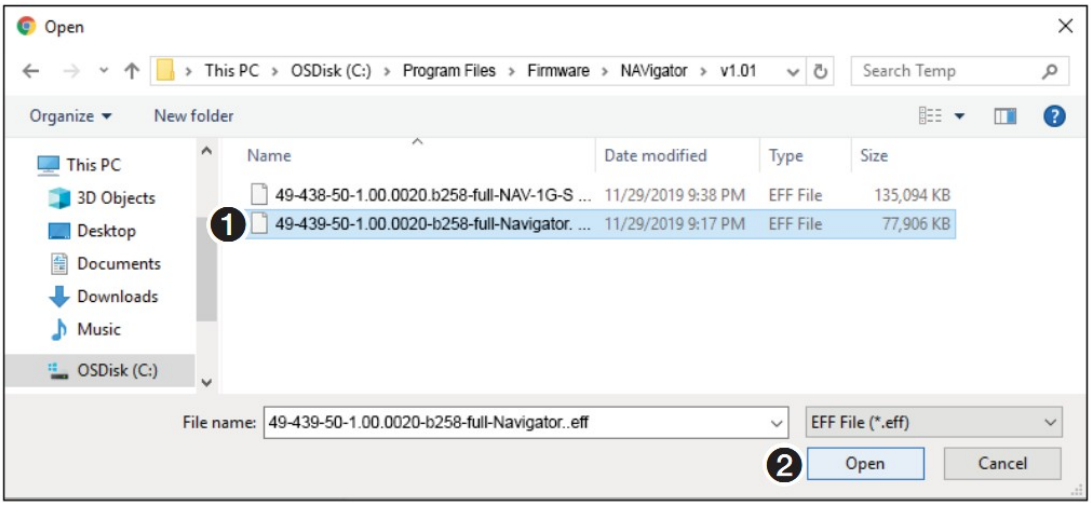


Figure 96. Open Dialog Box

5. Navigate to the folder where you saved the firmware upgrade file (see figure 96, 1). Select the file.
6. Click Open (2). The Open dialog box closes and the Device Tools page returns to the top, with the selected firmware file identified (see figure 97, 1).

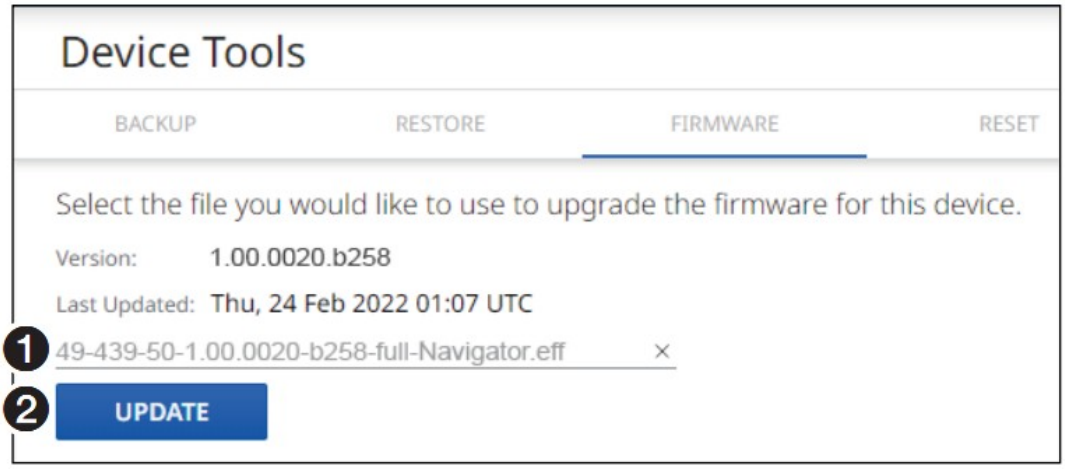


Figure 97. Device Page with Firmware File Identified

7. Click UPDATE (2).

   The NAVigator page displays a sequence that reports the progress as it uploads the file (see figure 98, 1), updates the firmware (2), and then reboots (3).

   NOTE: Do not unplug the NAVigator while the firmware is been upgraded.

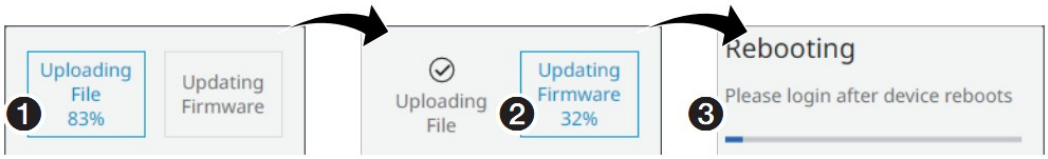


Figure 98. Firmware Upload Progress

When the NAVigator reboots, the connection to it is momentarily lost and after a few seconds, the browser displays the home page Login dialog box (see figure 8 on page 10). To continue to operate the NAVigator, you must reconnect (see Opening the Embedded HTML Pages on page 9).

Resetting the NAVigator

Reset the NAVigator settings or reboot the unit as follows:

1. If necessary, click the Menu icon (see figure 99, 1).

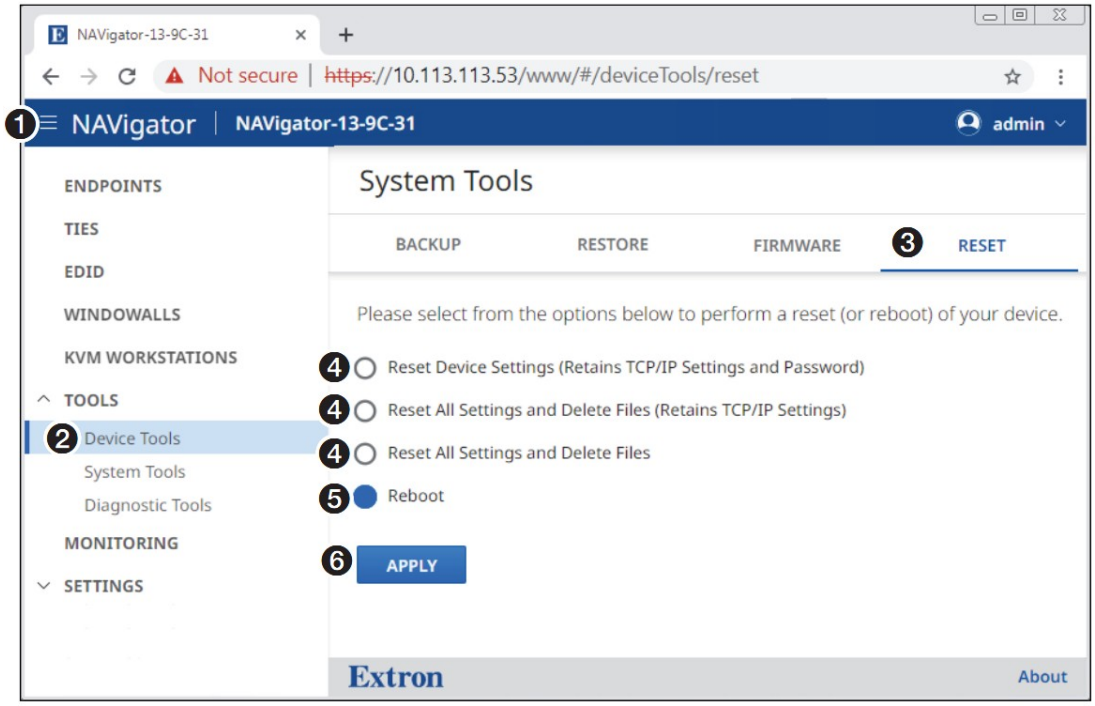


Figure 99. Opening the Restore Configuration Page

2. If necessary, click TOOLS > Device Tools (2). The Device Tools page opens.
3. If necessary, click RESET (3).
4. Select (click) the desired reset mode (4) or Reboot (5).

   NOTES:

   • Reset Device Settings (Retains TCP/IP Settings and Password) — Resets configuration settings. All communication settings and the password are retained. See the table of communication and configuration settings on page 92.

   • Reset All Settings and Delete Files (Retains TCP/IP Settings) — Resets configuration settings except the communication settings, which are maintained. Resets the password to the default, which is extron. See the table of communication and configuration settings.

   • Reset All Settings and Delete Files — This reset is identical to the Full Factory reset (see the table of rear panel reset modes on page 8).
5. Click APPLY (6).

   The NAVigator reports that it is Resetting and displays a status bar that shows the progress of the reset operation. When the operation completes, the NAVigator reboots.

   NOTE: To continue to operate the NAVigator, you must reconnect (see Opening the Embedded HTML Pages on page 9).

System Tools page
Backing up the system
Backup the settings of multiple devices in the NAV system as follows:

NOTES:

- Endpoints that are conflicted or offline are omitted from the system backup file. Check the Monitoring page to ensure that no endpoints report Offline or Conflicted (see Monitoring page on page 109). See Alarms on page 140 to remedy a conflicted or offline endpoint.
- Click the Filter drop-down list (see figure 100,A) to show only endpoints by specific criteria.

1. If necessary, click the Menu icon (see figure 100, 1).

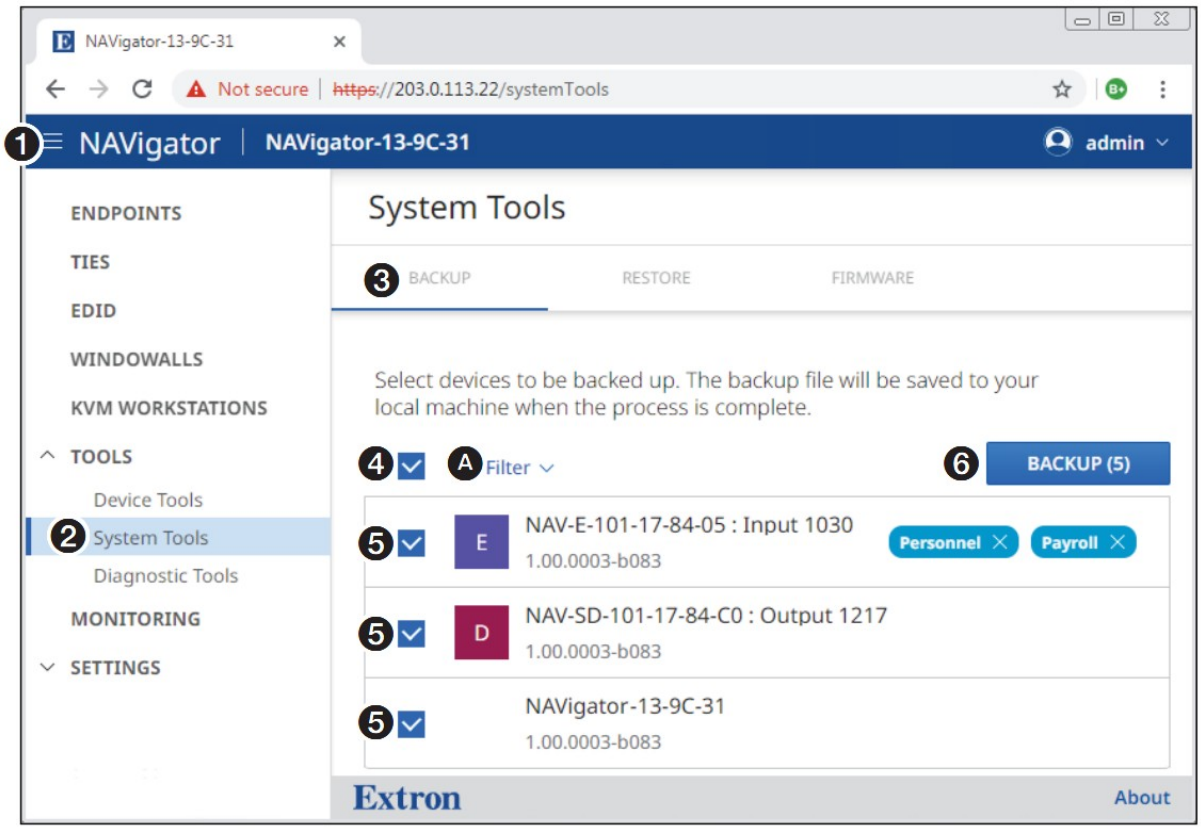
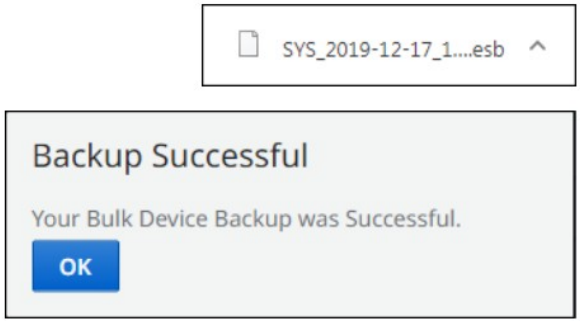


Figure 100. Opening the System Backup Pane

2. If necessary, click TOOLS > System Tools (2). The System Tools page opens.
3. If necessary, click BACKUP (3).
4. Click the All checkbox (4) or individual endpoint checkboxes (5) to select one or more endpoints to backup.
5. Click BACKUP (6).

   The NAVigator creates a file of current system settings.

   The NAVigator reports that the backup was file was successfuly created.



NOTE: Unless otherwise directed, the NAVigator backup file goes to the Downloads folder of the connected PC.

Restoring the system configuration

Restore the system settings, including the NAVigator and endpoints, as follows:

NOTE: Backup files are not compatible between firmware versions, due to the possible addition of new NAV system features. See the firmware Release Notes available at www.extron.com.

1. If necessary, click the Menu icon (see figure 101, 1).

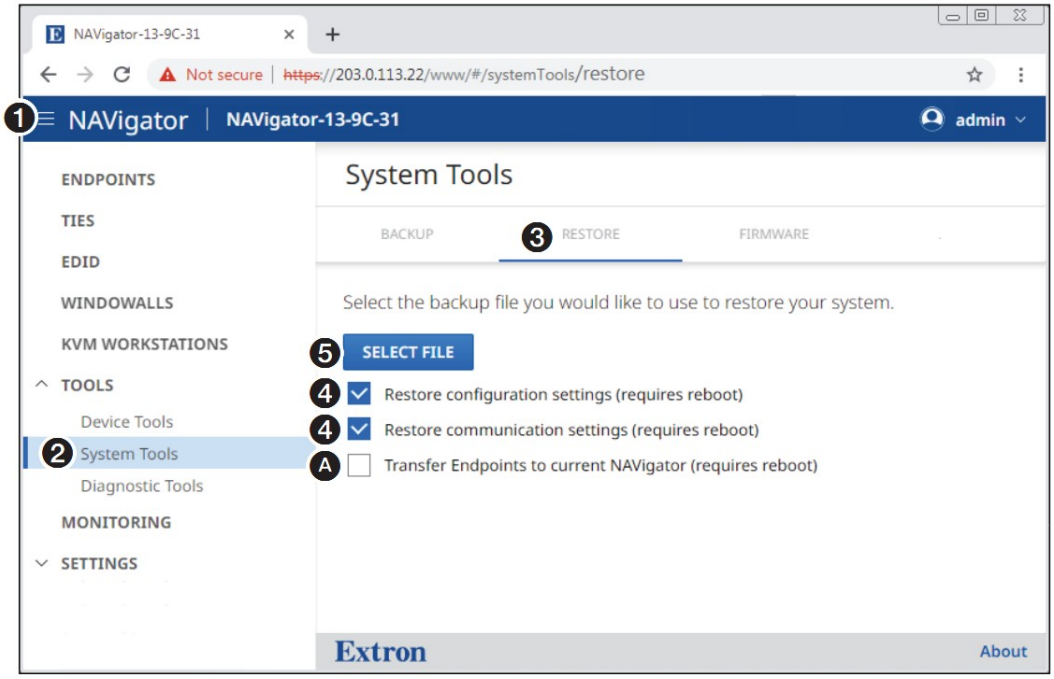


Figure 101. Opening the Restore Configuration Pane

2. If necessary, click TOOLS > System Tools (2). The System Tools page opens.
3. If necessary, click RESTORE (3).
4. Select (click) the settings to restore (4).

   NOTES:

   • See the table of communication and configuration settings on page 92.

   • The Transfer Endpoints to current NAVigator (requires reboot) selection (A) is a system transfer function to replace a NAVigator (see Transferring system configuration to a backup NAVigator on page 99).
5. Click SELECT FILE (5). An Open dialog box opens (see figure 102 on page 98).

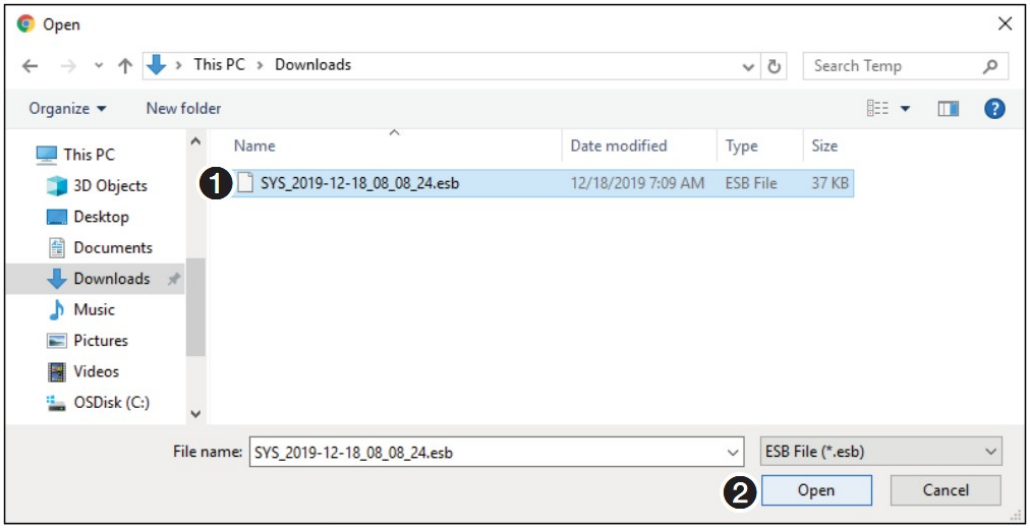


Figure 102. Open Dialog Box

6. Navigate to the folder where the backup file is saved (typically the Downloads folder) (see figure 102, 1). Select the file.
7. Click Open (2). The System Tools page returns to the top (see figure 103).

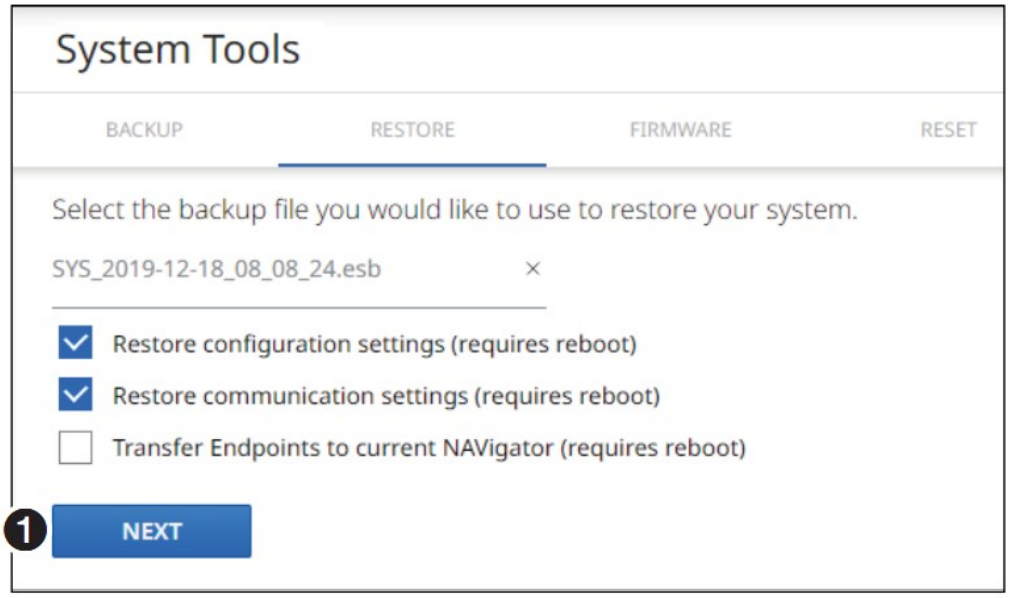


Figure 103. System Tools — Restore Function

8. Click NEXT (see figure 103, 1).

   For Restore Configuration settings or Restore communication settings, a Select page opens (see figure 104 on page 100.

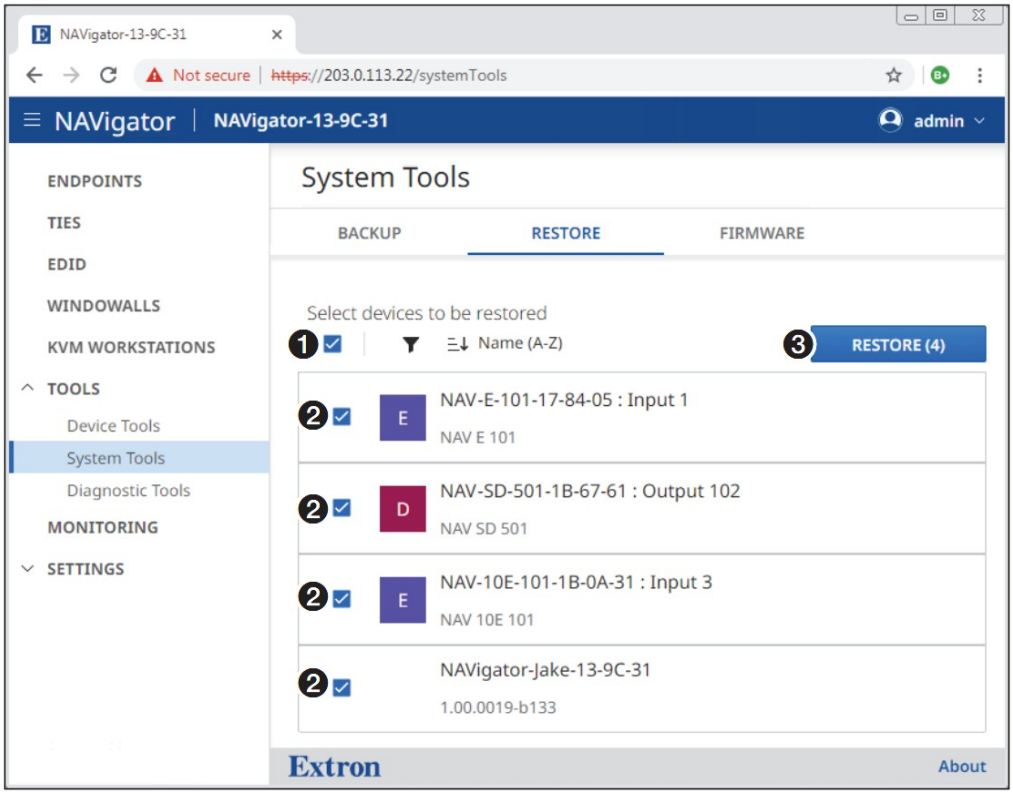
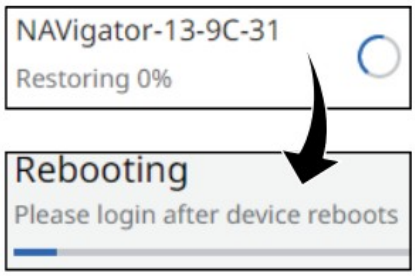


Figure 104. Selecting endpoints to restore

9. Click the All checkbox (see figure 104, 1) or individual device checkboxes (2) to select one or more devices to restore.
10. Click RESTORE (3).

    The NAVigator reports that it is Restoring and then Rebooting and displays a status bar that shows the progress of the Restore operation. When the operation completes, the NAVigator reboots.



Transferring system settings to a replacement NAVigator

NOTES:

- This procedure is a restore option to recover your system if a NAVigator fails. It allows a replacement NAVigator to assume NAV system management if necessary.
- This procedure assumes that you have already created a system backup file (see Backing up the system on page 96).
- The replacement NAVigator needs the same LinkLicenses as the original. This keep the same features, such as endpoints upgrade and 3rd party control.

Transfer the endpoints to backup NAVigator as follows:

1. Disconnect the original NAVigator and remove it from the system. Mount and connect the replacement NAVigator (see Installation and Operation on page 4).
2. Connect to the replacement NAVigator via the embedded HTML pages (see Opening the Embedded HTML Pages on page 9).
3. Configure the replacement NAVigator with the proper IP addressing for your setup, whether that is static or DHCP-assigned IP addressing (see Network Connection Settings on page 29).
4. Open the system restore page — Perform steps 1 through 3 of Restoring the system configuration on page 97.
5. Select (click) Transfer Endpoints to current NAVigator (requires reboot) (see figure 105, 1).

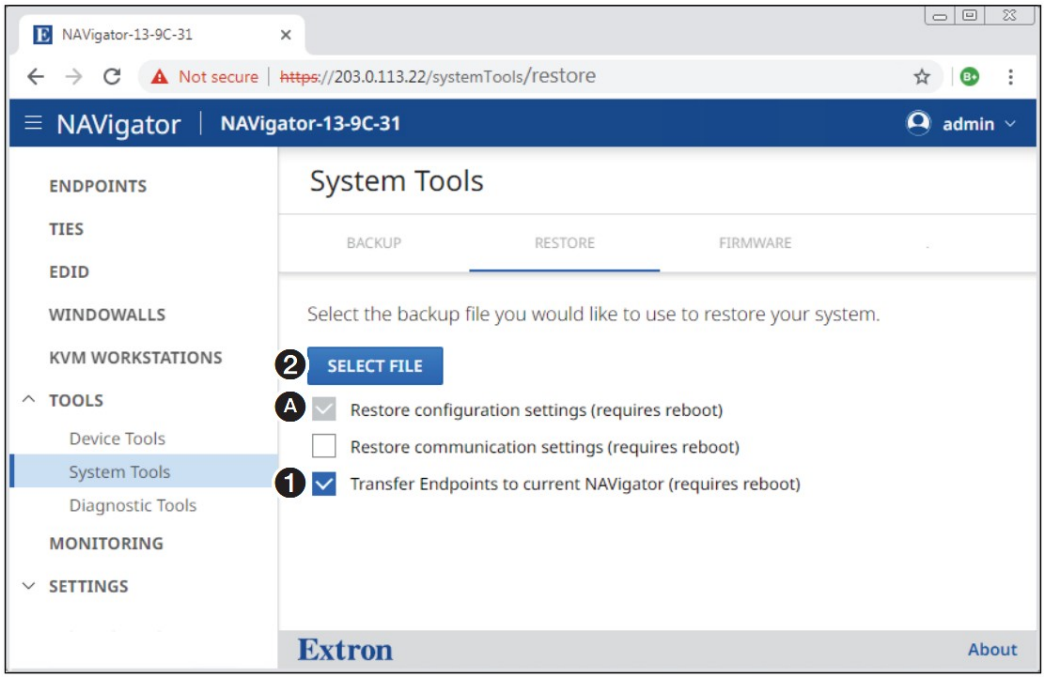


Figure 105. Transferring System Configuration

NOTE: This selection also automatically selects Restore Configuration Settings (requires reboot) (A).

6. Click SELECT FILE (2). An Open dialog box opens (see figure 106 on page 102).

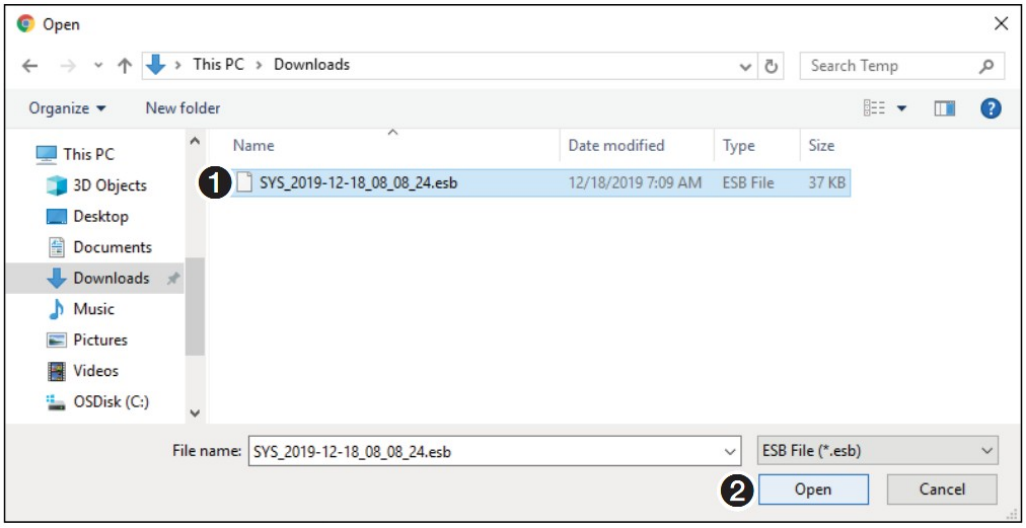


Figure 106. Open Dialog Box

7. Navigate to the folder where the backup file is saved (typically the Downloads folder) (see figure 106, 1). Select the file.
8. Click Open (2). The System Tools page returns to the top (see figure 107).

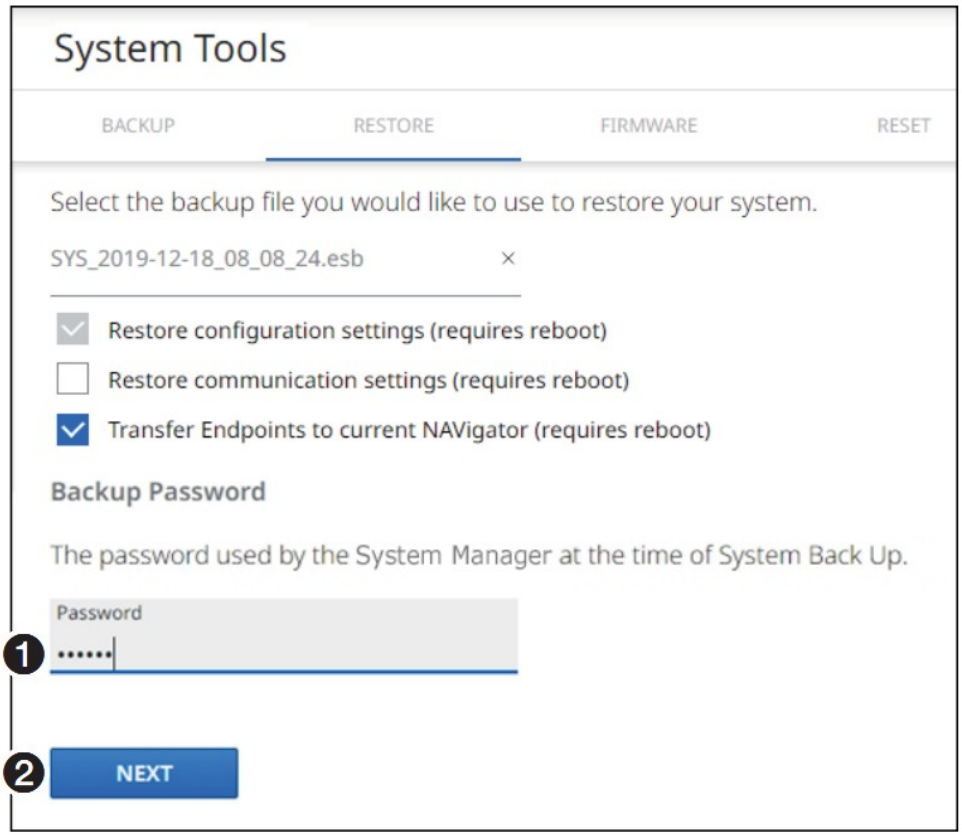


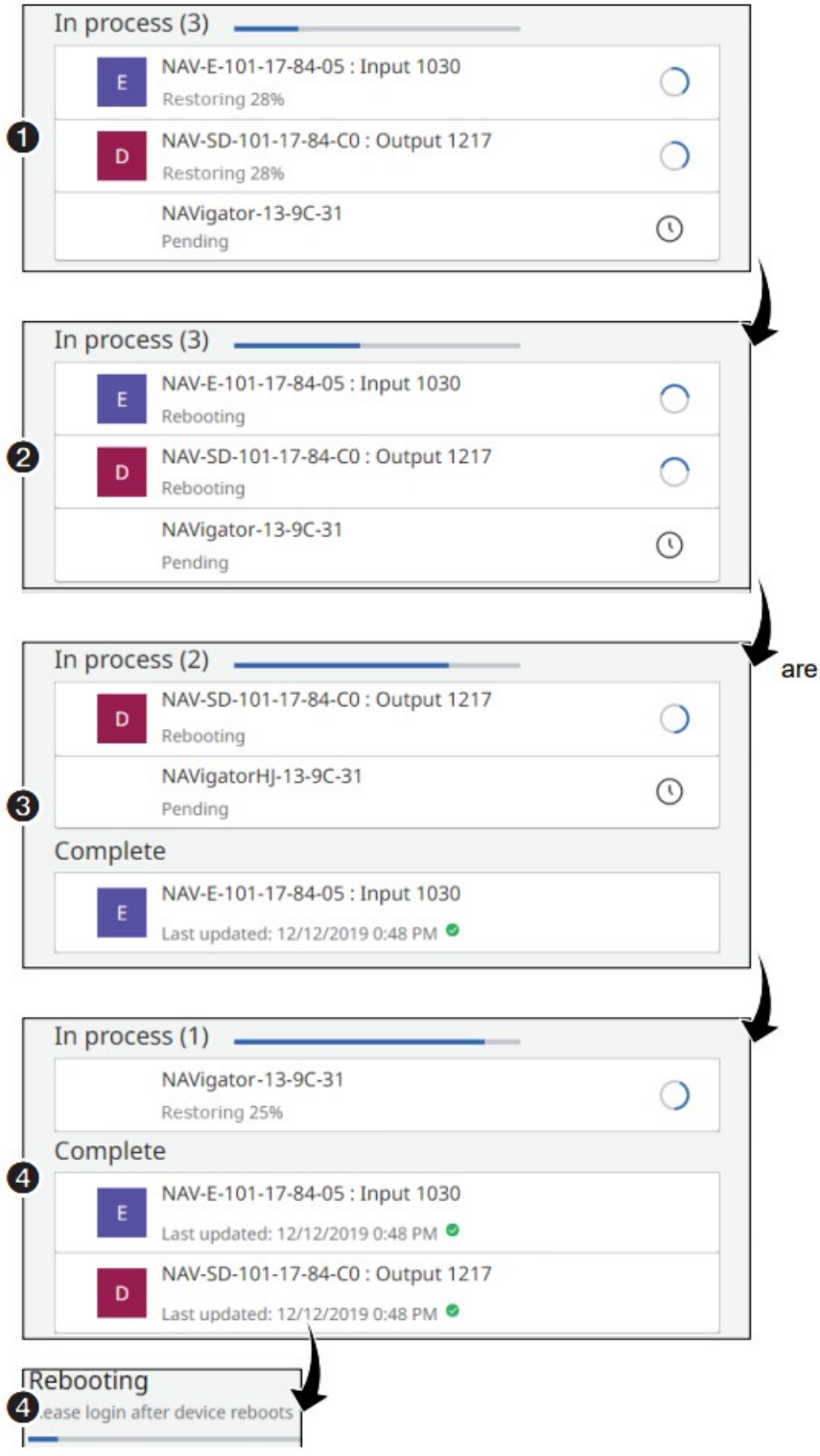
Figure 107. System Tools — Restore Function During Transfer

9. Enter the Password (see figure 107, 1) used by the original NAVigator when the system backup file was created.
10. Click NEXT (2).

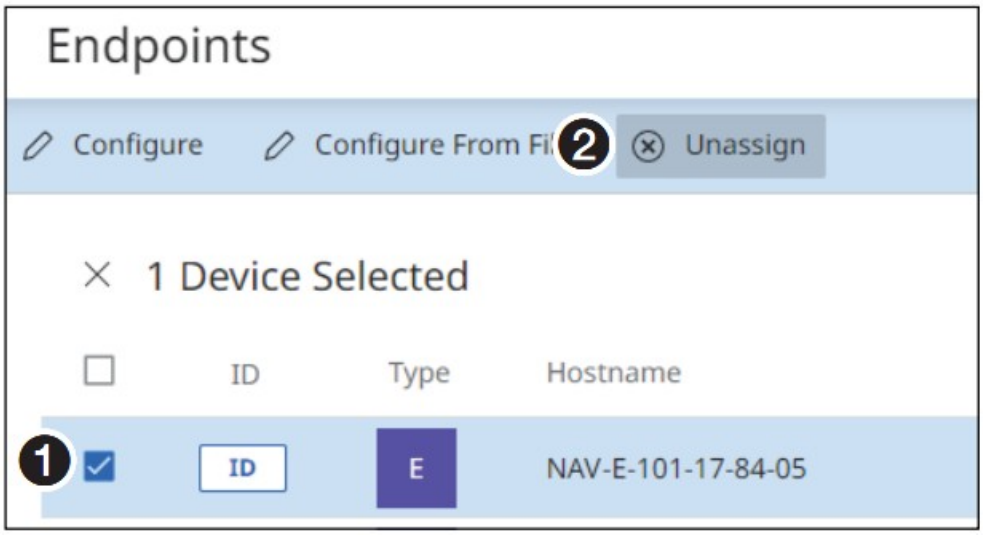
θ†

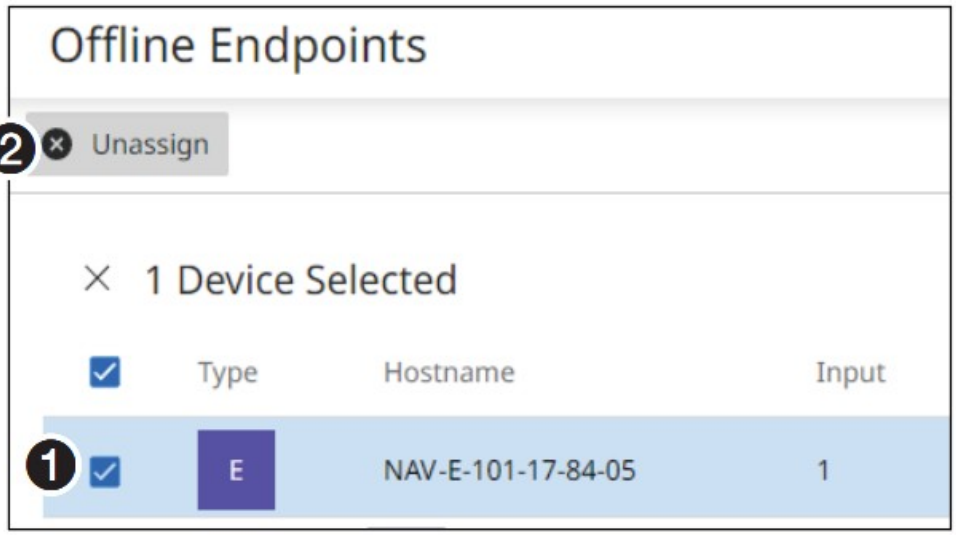
or


SAVE GENERAL
SAVE ALL
NAME
INPUT
Personnel
Payroll
DELETE
CANCEL

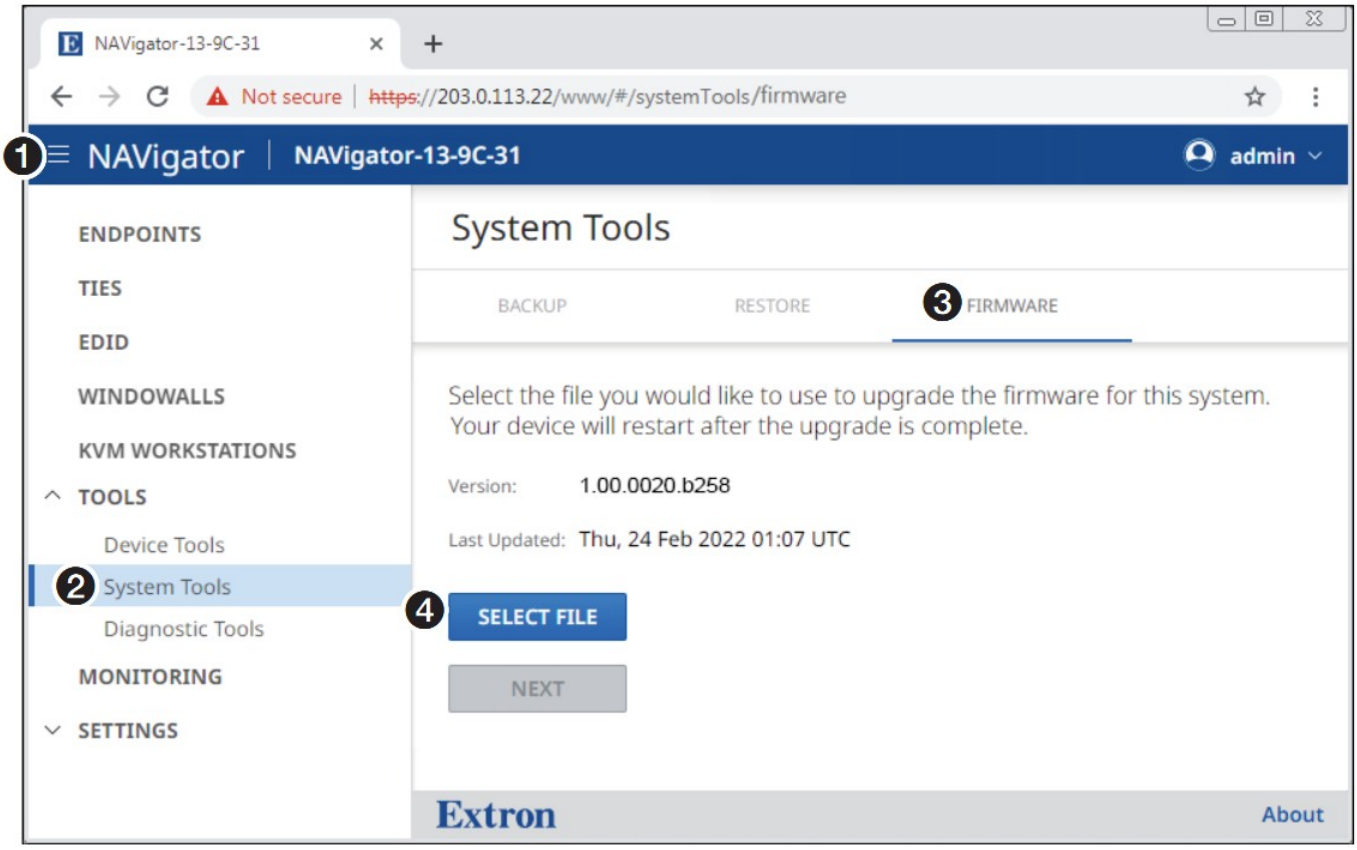

In process (3)
E
NAV-E-101-17-84-05 : Input 1030
Restoring 28%
1
D
NAV-SD-101-17-84-C0 : Output 1217
Restoring 28%
NAVigator-13-9C-31
Pending
In process (3)
E
NAV-E-101-17-84-05 : Input 1030
Rebooting
2
D
NAV-SD-101-17-84-C0 : Output 1217
Rebooting
NAVigator-13-9C-31
Pending
In process (2)
D
NAV-SD-101-17-84-C0 : Output 1217
Rebooting
3
NAVigatorHJ-13-9C-31
Pending
Complete
E
NAV-E-101-17-84-05 : Input 1030
Last updated: 12/12/2019 0:48 PM
In process (1)
NAVigator-13-9C-31
Restoring 25%
Complete
4
E
NAV-E-101-17-84-05 : Input 1030
Last updated: 12/12/2019 0:48 PM
D
NAV-SD-101-17-84-C0 : Output 1217
Last updated: 12/12/2019 0:48 PM
Rebooting
4
ease login after device reboots

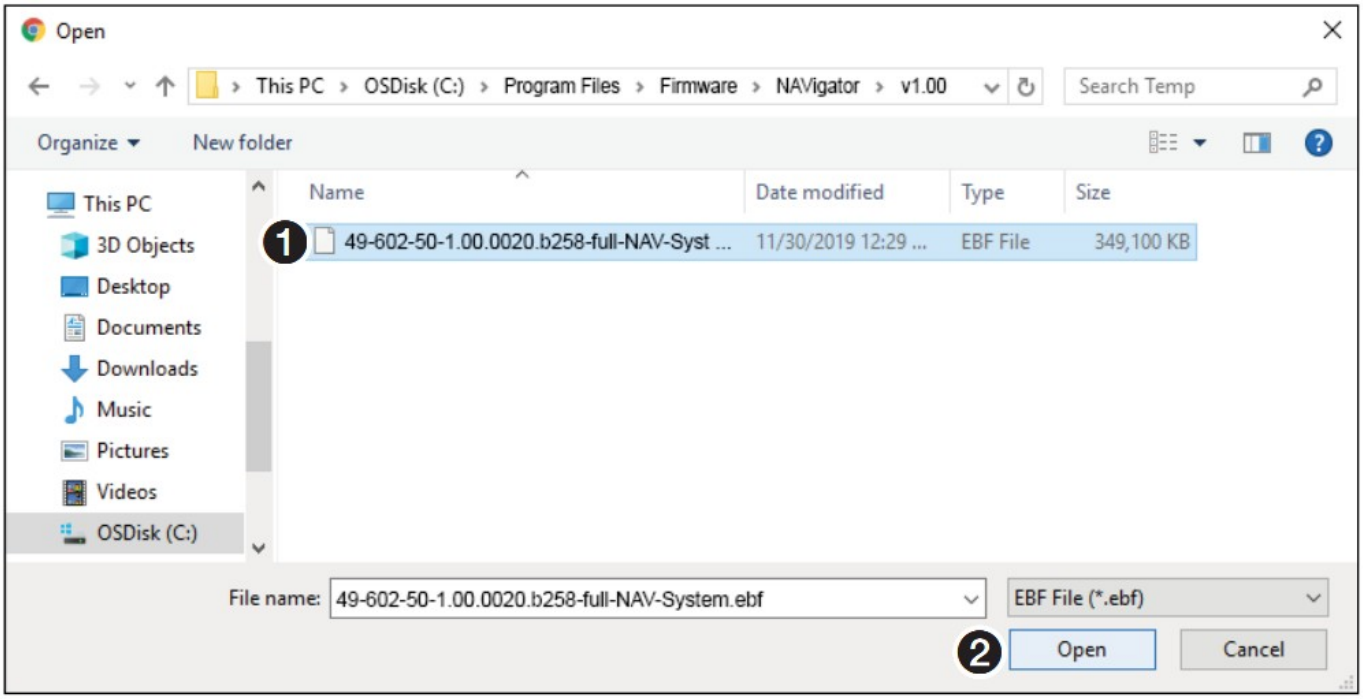
are

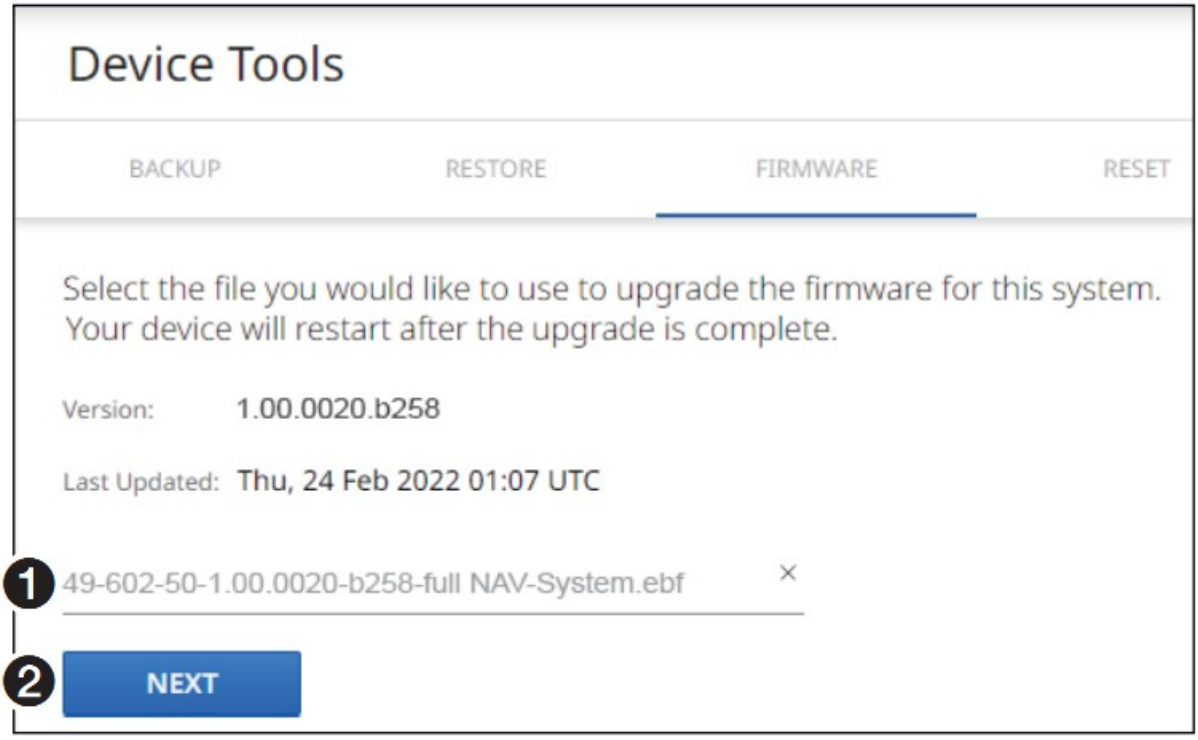

Endpoints
Configure
Configure From Fi
2
Unassign
1 Device Selected
ID
Type
Hostname
1
ID
E
NAV-E-101-17-84-05

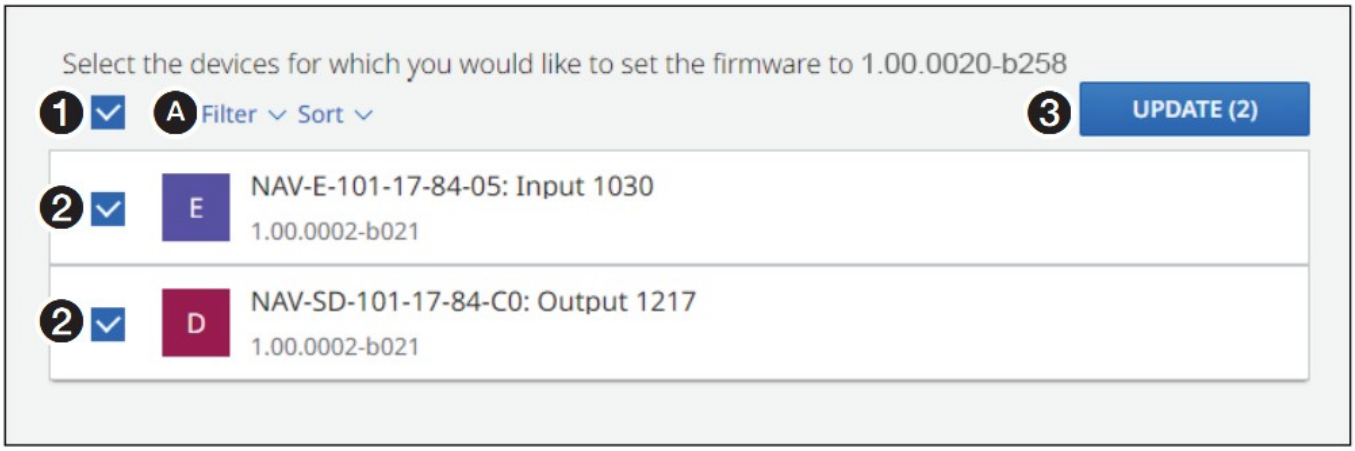

Offline Endpoints
2
Unassign
1 Device Selected
Type
Hostname
Input
1
E
NAV-E-101-17-84-05
1

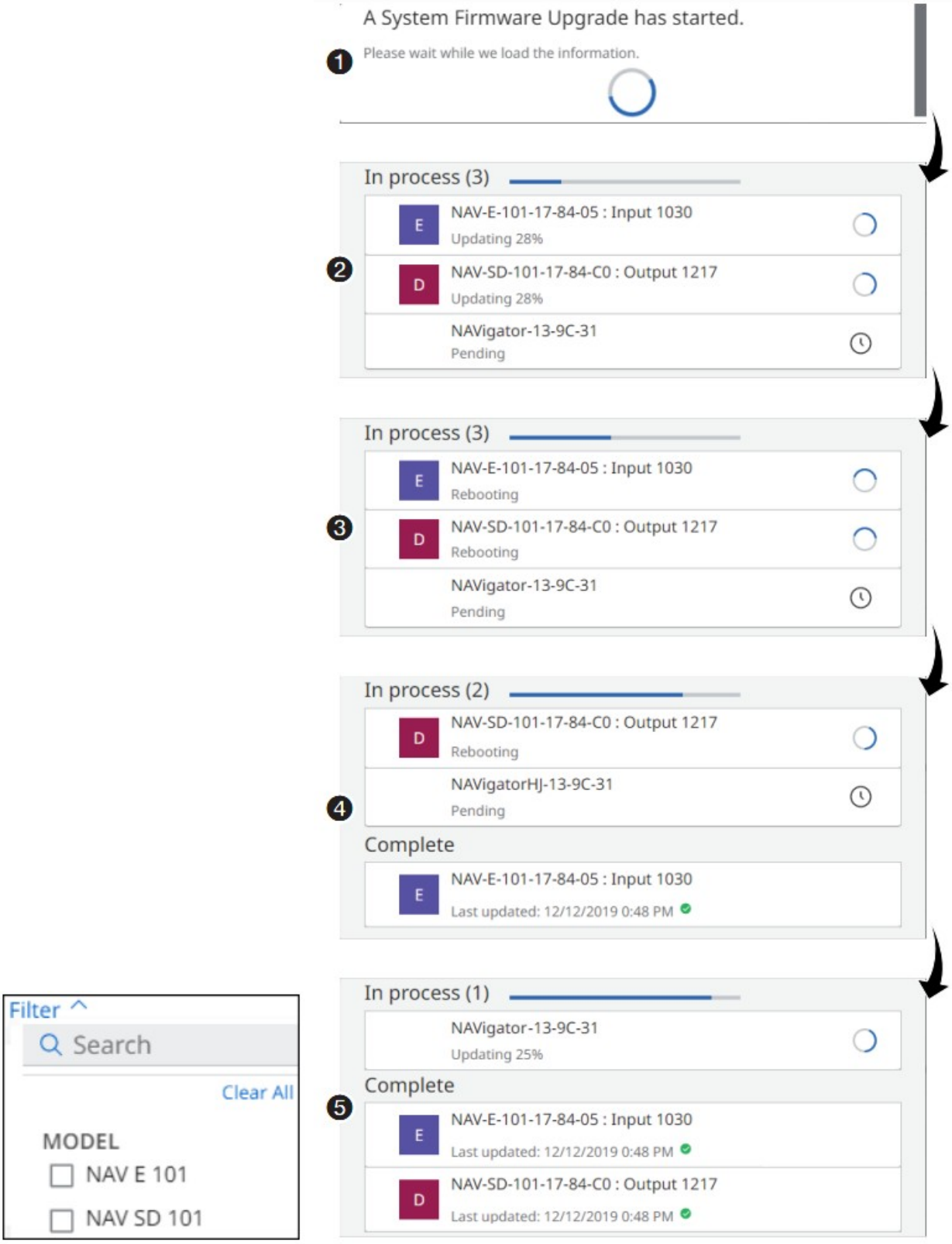

1
E
NAV-E-101-1B-0A-31 : Input 3
NAV E 101

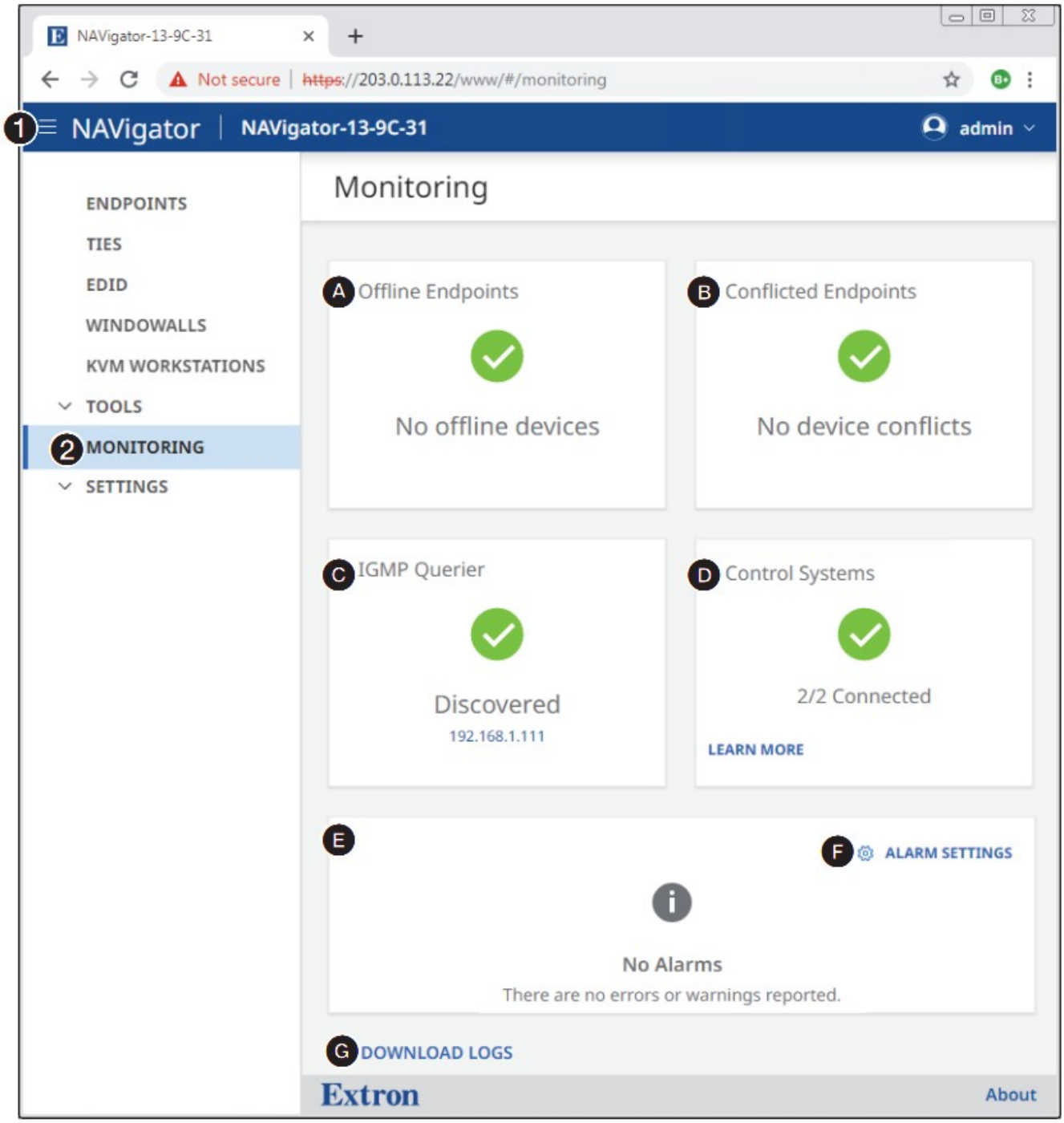

NAVigator-13-9C-31
Not secure
https://203.0.113.22/www/#/systemTools/firmware
1
NAVigator
NAVigator-13-9C-31
admin
ENDPOINTS
TIES
EDID
WINDOWALLS
KVM WORKSTATIONS
TOOLS
Device Tools
2
System Tools
Diagnostic Tools
MONITORING
SETTINGS
System Tools
BACKUP
RESTORE
3
FIRMWARE
Select the file you would like to use to upgrade the firmware for this system.
Your device will restart after the upgrade is complete.
Version:
1.00.0020.b258
Last Updated:
Thu, 24 Feb 2022 01:07 UTC
4
SELECT FILE
NEXT
Extron
About

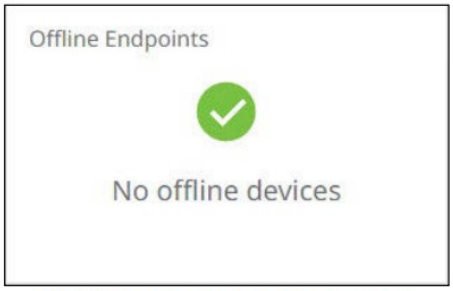

Open
This PC › OSDisk (C:) › Program Files › Firmware › NAVigator › v1.00
Search Temp
Organize
New folder
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
OSDisk (C:)
Name
Date modified
Type
Size
1
49-602-50-1.00.0020.b258-full-NAV-Syst ...
11/30/2019 12:29 ...
EBF File
349,100 KB
File name:
49-602-50-1.00.0020.b258-full-NAV-System.ebf
EBF File (*.ebf)
2
Open
Cancel


Device Tools
BACKUP
RESTORE
FIRMWARE
RESET
Select the file you would like to use to upgrade the firmware for this system.
Your device will restart after the upgrade is complete.
Version:
1.00.0020.b258
Last Updated:
Thu, 24 Feb 2022 01:07 UTC
1
49-602-50-1.00.0020-b258-full NAV-System.ebf
2
NEXT

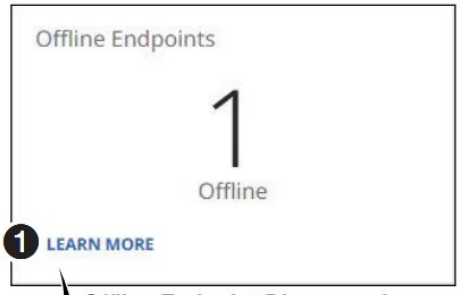

Select the devices for which you would like to set the firmware to 1.00.0020-b258
1
A
Filter
Sort
3
UPDATE (2)
2
E
NAV-E-101-17-84-05: Input 1030
1.00.0002-b021
2
D
NAV-SD-101-17-84-C0: Output 1217
1.00.0002-b021


A System Firmware Upgrade has started.
1
Please wait while we load the information.
In process (3)
E
NAV-E-101-17-84-05 : Input 1030
Updating 28%
2
D
NAV-SD-101-17-84-C0 : Output 1217
Updating 28%
NAVigator-13-9C-31
Pending
In process (3)
E
NAV-E-101-17-84-05 : Input 1030
Rebooting
3
D
NAV-SD-101-17-84-C0 : Output 1217
Rebooting
NAVigator-13-9C-31
Pending
In process (2)
D
NAV-SD-101-17-84-C0 : Output 1217
Rebooting
4
NAVigatorHJ-13-9C-31
Pending
Complete
E
NAV-E-101-17-84-05 : Input 1030
Last updated: 12/12/2019 0:48 PM
Filter
Search
Clear All
MODEL
NAV E 101
NAV SD 101
In process (1)
NAVigator-13-9C-31
Updating 25%
Complete
5
E
NAV-E-101-17-84-05 : Input 1030
Last updated: 12/12/2019 0:48 PM
D
NAV-SD-101-17-84-C0 : Output 1217
Last updated: 12/12/2019 0:48 PM

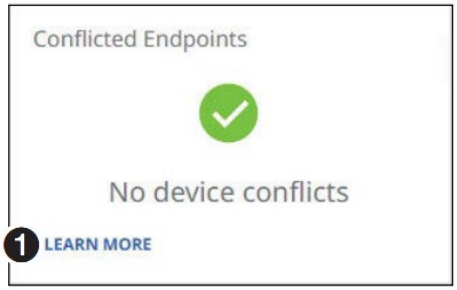




No Offline Endpoints Discovered

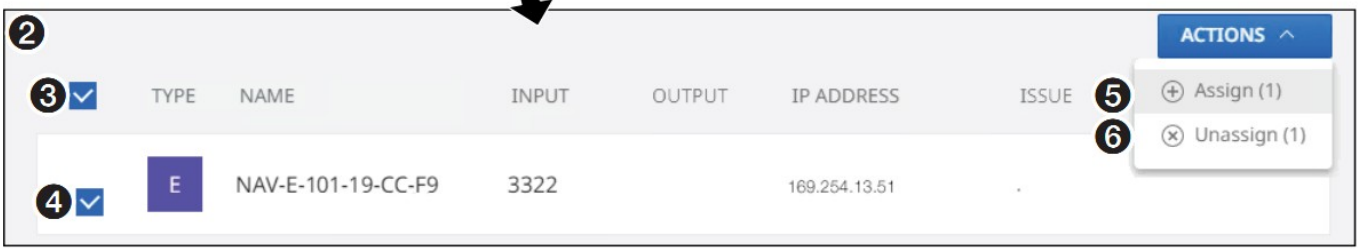


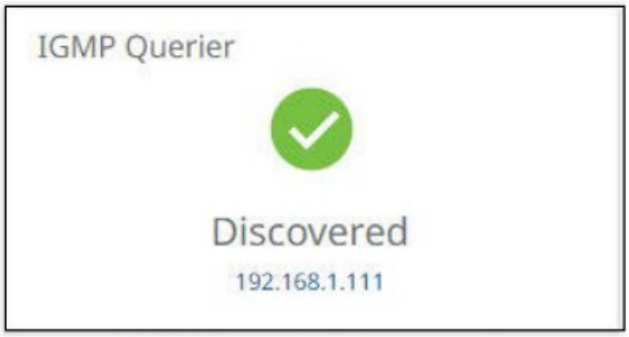
Offline Endpoint Discovered



No Conflicted Endpoints Discovered

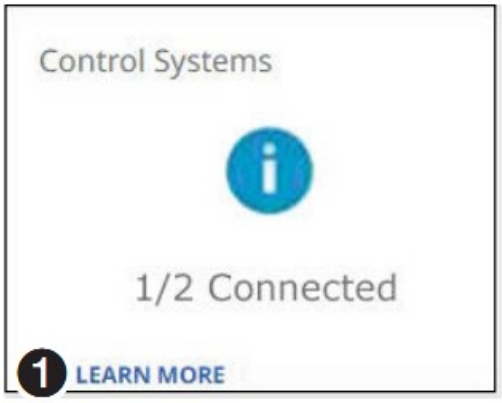
Conflicted Endpoint Discovered





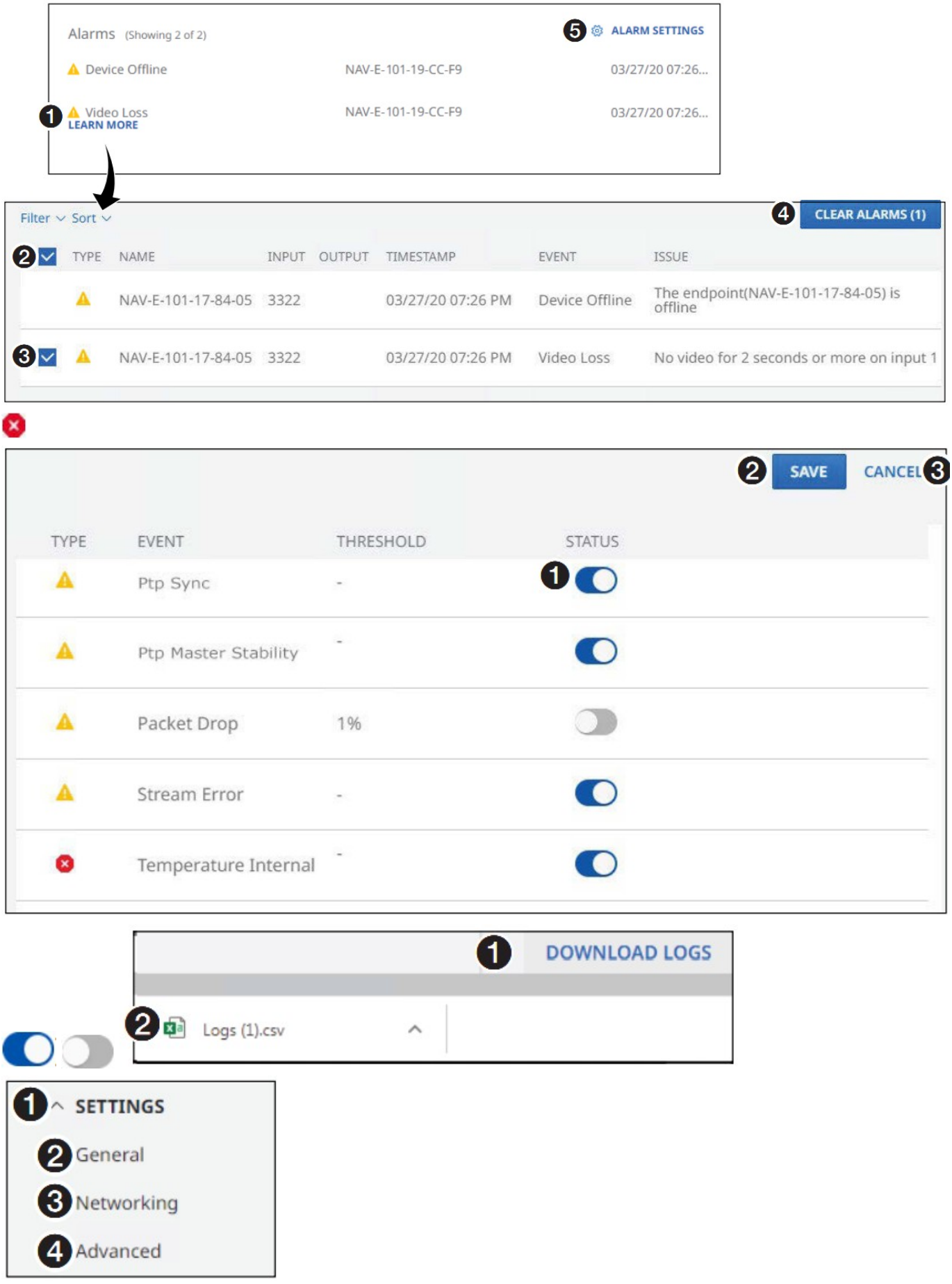
IGMP Querier Discovered

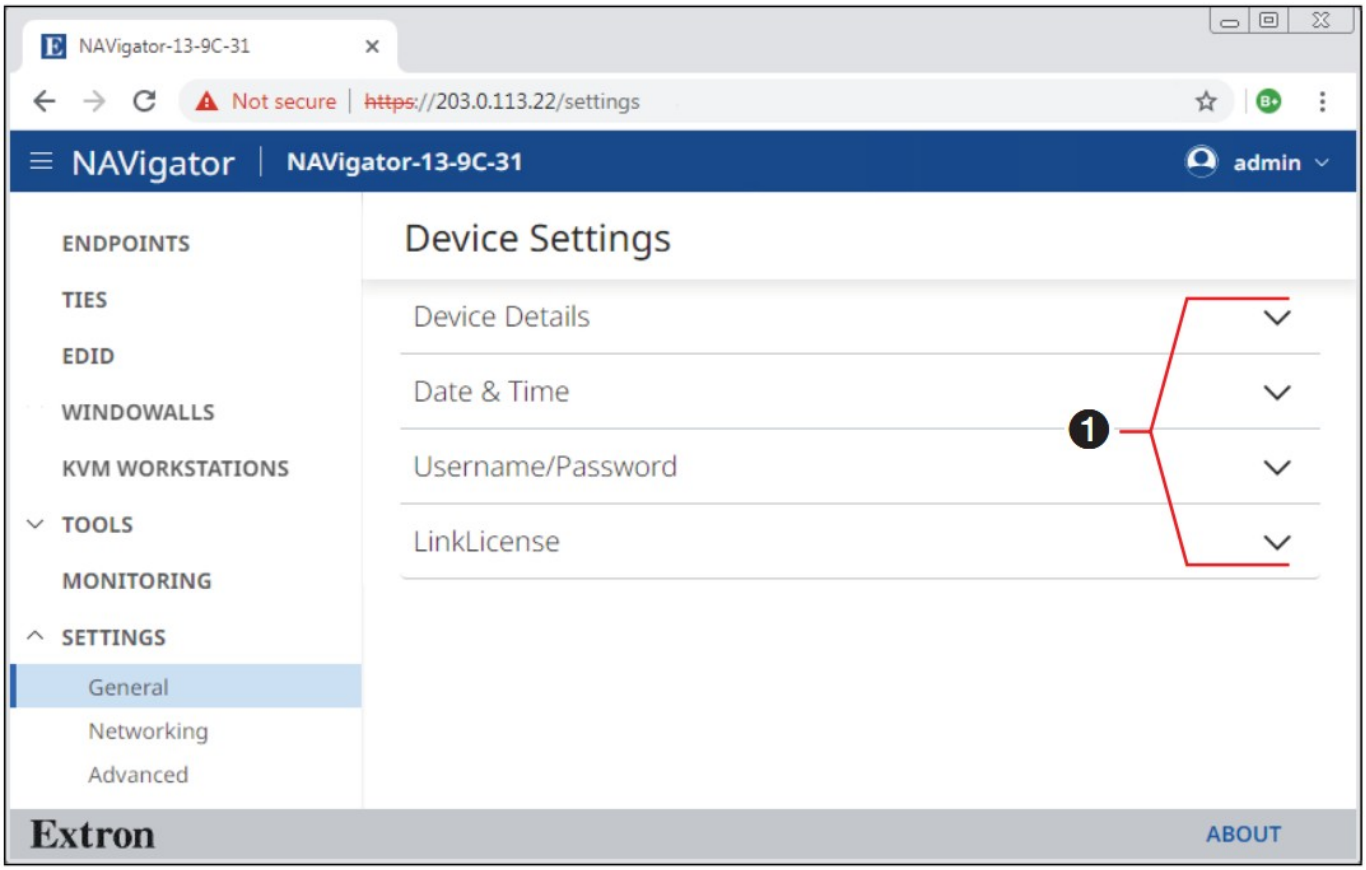
IGMP Querier Not Discovered



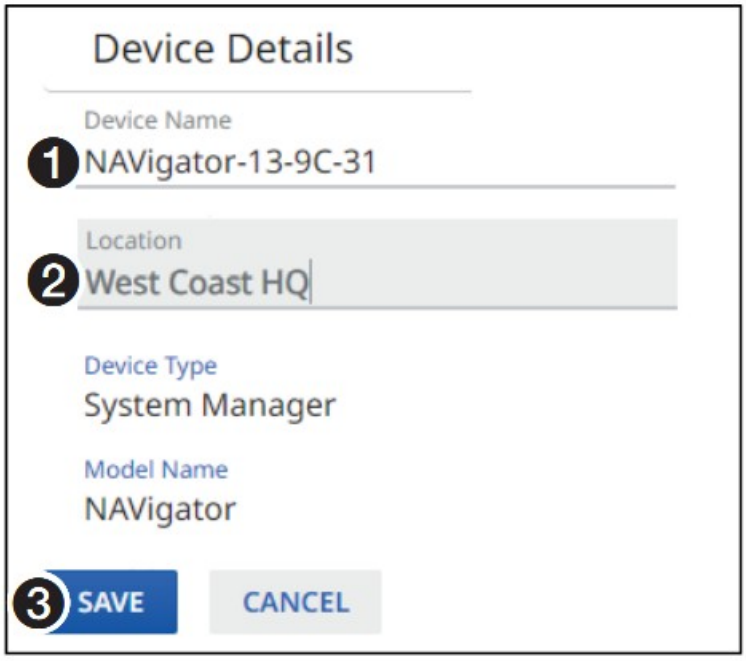
2 Paired Control Systems

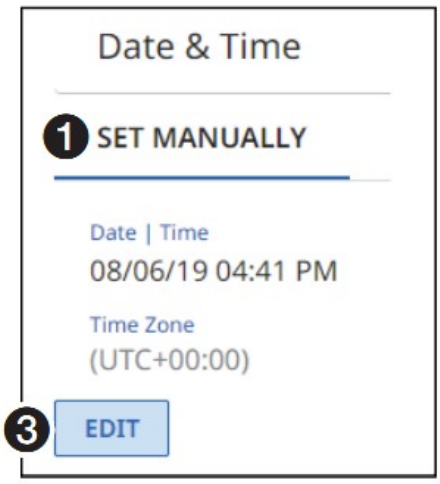
IP ADDRESS	SYSTEM ID	STATE
192.168.1.190	6661	Connecting
192.168.1.180	0509	Connected


Alarms (Showing 2 of 2)
5 ALARM SETTINGS
Device Offline NAV-E-101-19-CC-F9 03/27/20 07:26...
1 Video Loss NAV-E-101-19-CC-F9 03/27/20 07:26...
LEARN MORE
Filter Sort
4 CLEAR ALARMS (1)
2 TYPE NAME INPUT OUTPUT TIMESTAMP EVENT ISSUE
NAV-E-101-17-84-05 3322 03/27/20 07:26 PM Device Offline The endpoint(NAV-E-101-17-84-05) is offline
3 NAV-E-101-17-84-05 3322 03/27/20 07:26 PM Video Loss No video for 2 seconds or more on input 1
2 SAVE CANCEL 3
TYPE EVENT THRESHOLD STATUS
Ptp Sync - 1
Ptp Master Stability -
Packet Drop 1%
Stream Error -
Temperature Internal -
1 DOWNLOAD LOGS
2 Logs (1).csv
1 SETTINGS
2 General
3 Networking
4 Advanced

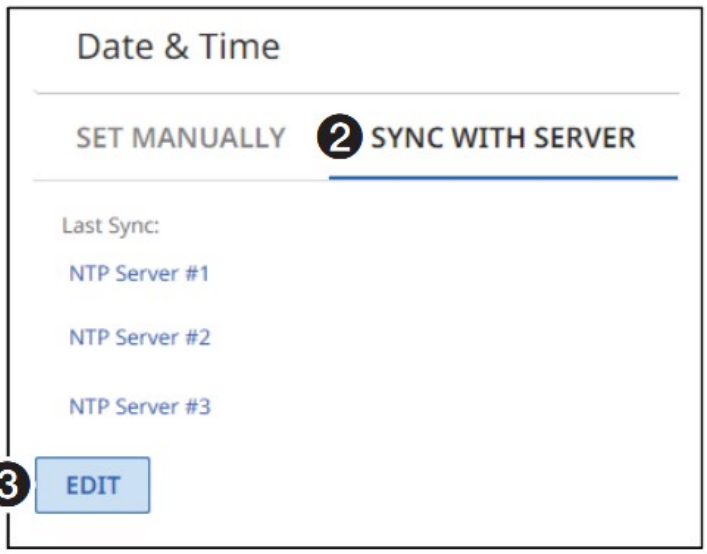

NAVigator-13-9C-31
Not secure
https://203.0.113.22/settings
NAVigator
NAVigator-13-9C-31
admin
ENDPOINTS
TIES
EDID
WINDOWALLS
KVM WORKSTATIONS
TOOLS
MONITORING
SETTINGS
General
Networking
Advanced
Device Settings
Device Details
Date & Time
Username/Password
LinkLicense
1
Extron
ABOUT


Device Details
Device Name
NAVigator-13-9C-31
Part Number
60-1534-01
Location
Not Specified
Serial Number
A1YX8DN
Device Type
System Manager
Firmware Version
1.00.0020-b258
Model Name
NAVigator
Power Source
P/S
Model Description
NAV System Manager
Temperature
118.4F/48.0C
1
EDIT

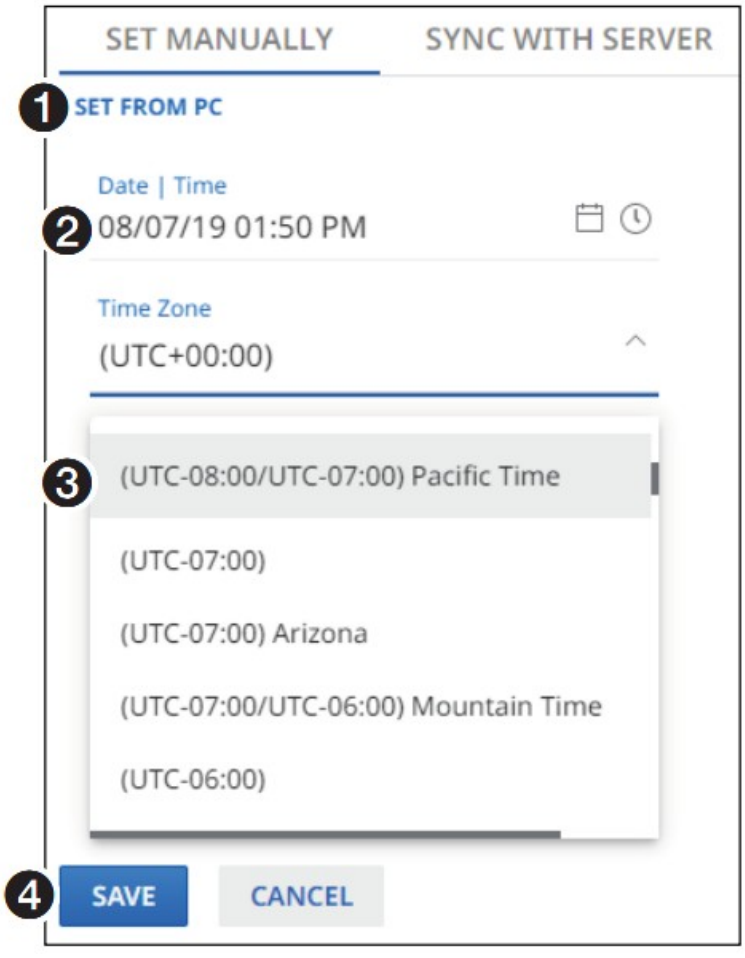


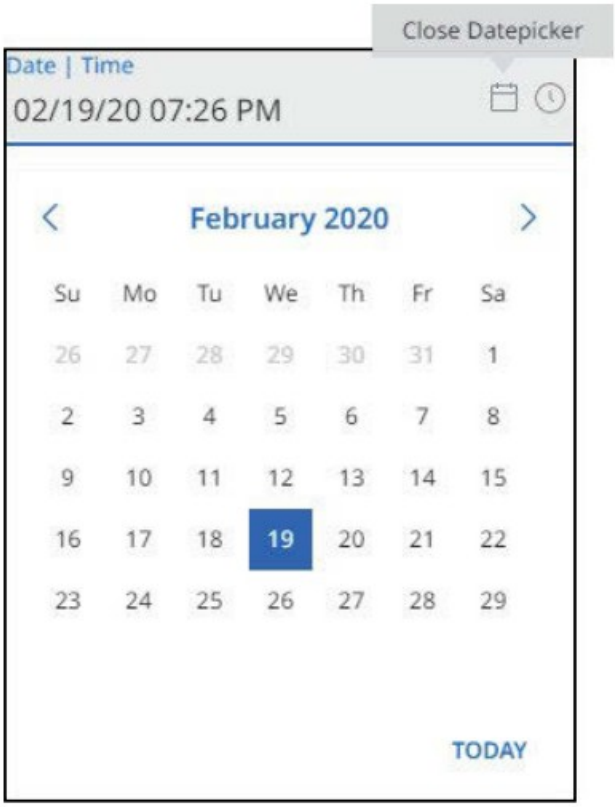


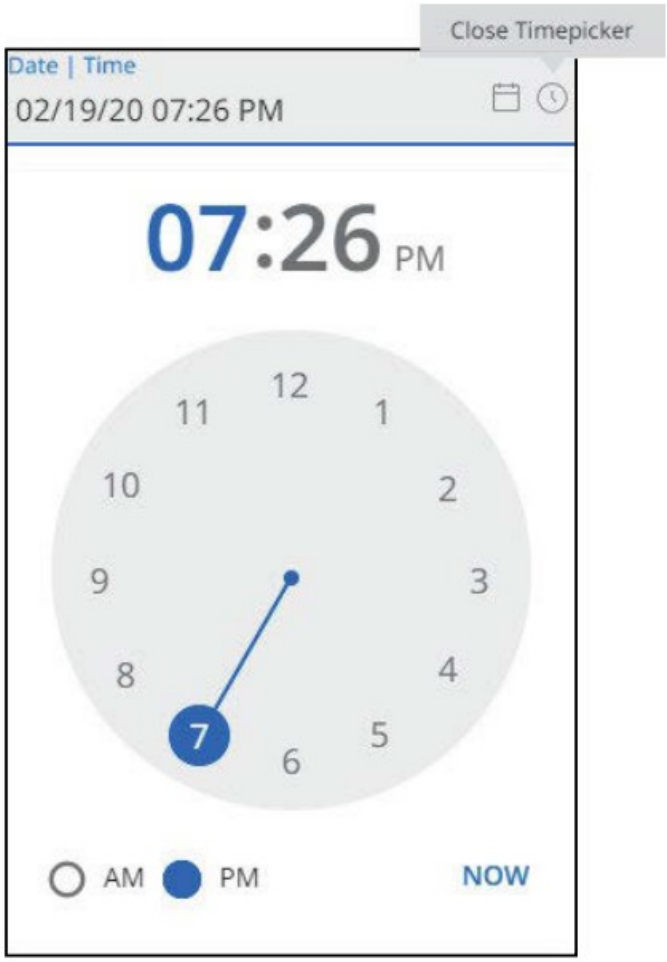
Set Time Manually

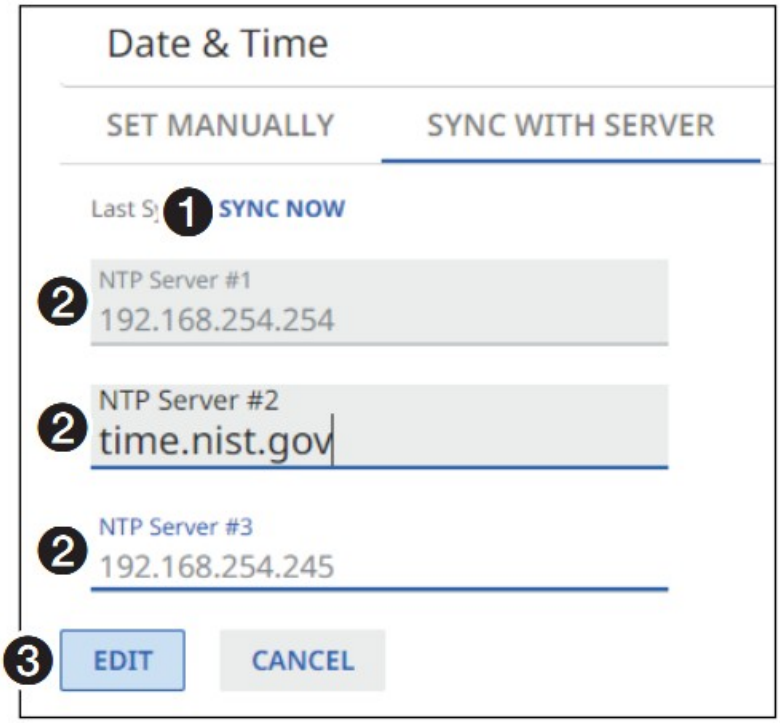


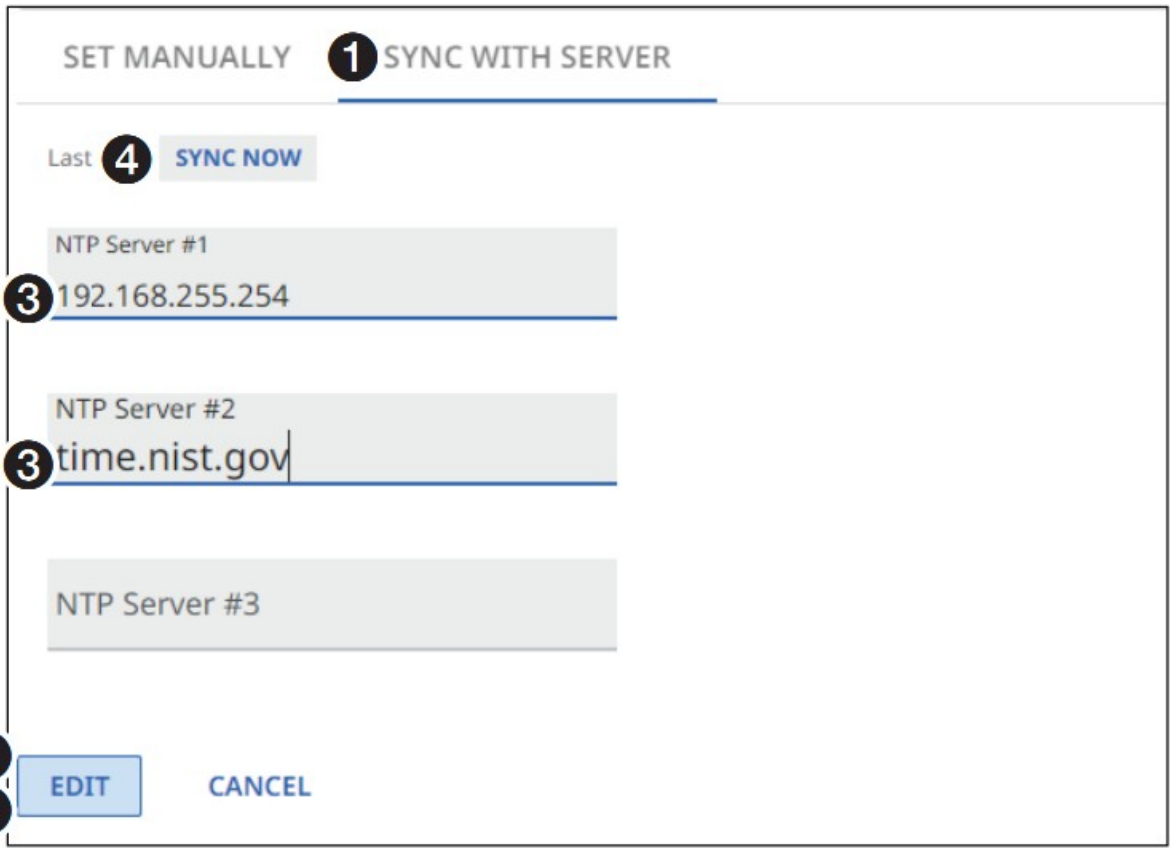
Sync


SET MANUALLY
SYNC WITH SERVER
1
SET FROM PC
Date | Time
2
08/07/19 01:50 PM
Time Zone
(UTC+00:00)
3
(UTC-08:00/UTC-07:00) Pacific Time
(UTC-07:00)
(UTC-07:00) Arizona
(UTC-07:00/UTC-06:00) Mountain Time
(UTC-06:00)
4
SAVE
CANCEL

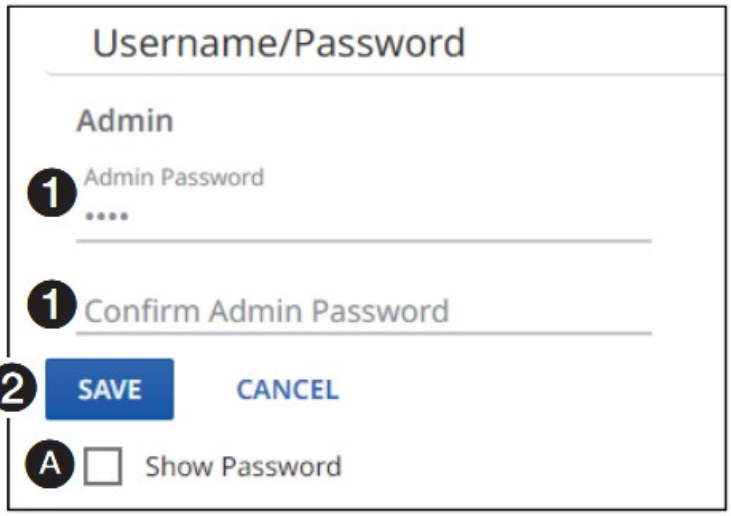

Close Datepicker
Date | Time
02/19/20 07:26 PM
February 2020
Su Mo Tu We Th Fr Sa
26 27 28 29 30 31 1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
TODAY

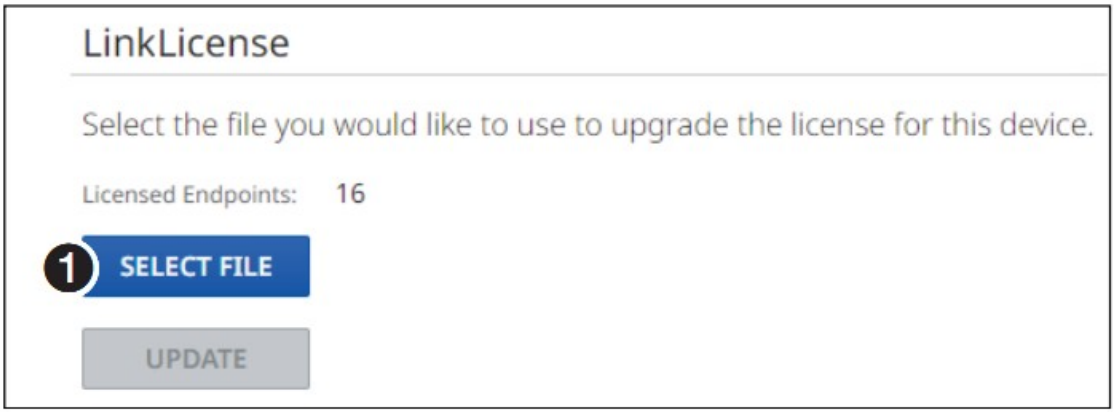

Close Timepicker
Date | Time
02/19/20 07:26 PM
07:26 PM
12 1 2 3 4 5 6 7 8 9 10 11
AM
PM
NOW

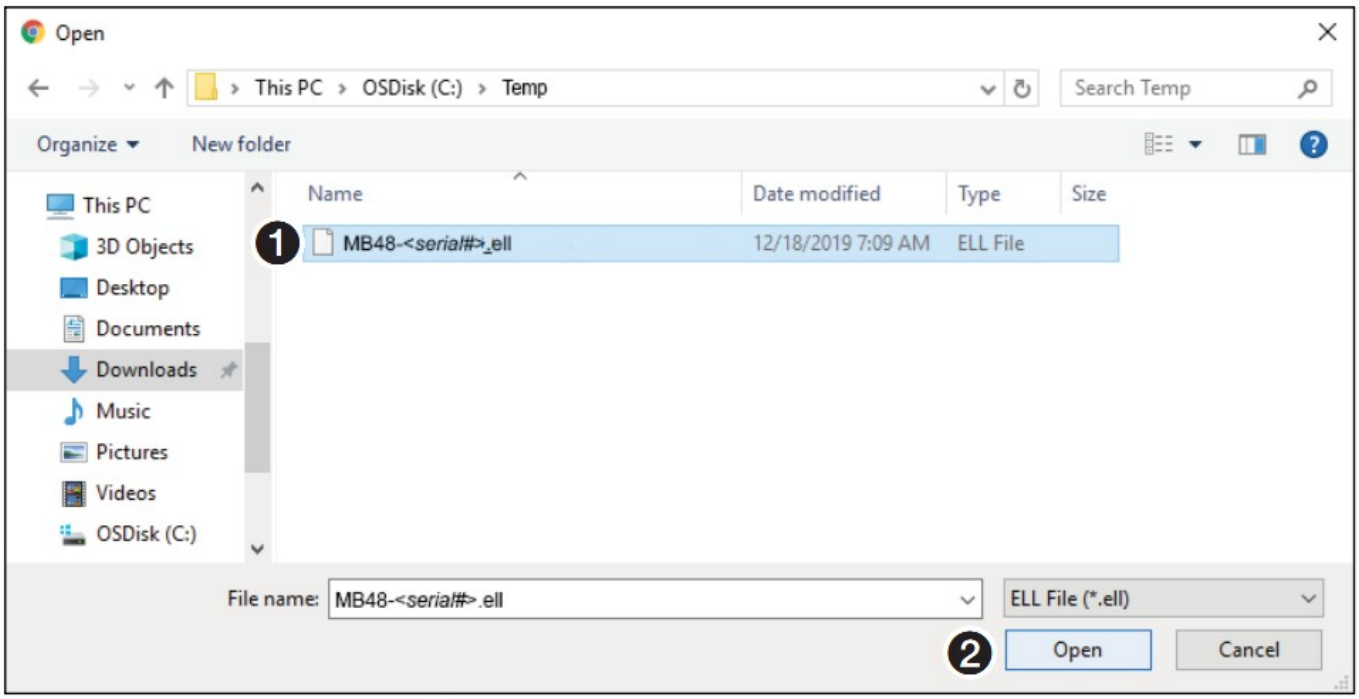

Date & Time
SET MANUALLY
SYNC WITH SERVER
Last S
1
SYNC NOW
2
NTP Server #1
192.168.254.254
2
NTP Server #2
time.nist.gov
2
NTP Server #3
192.168.254.245
3
EDIT
CANCEL

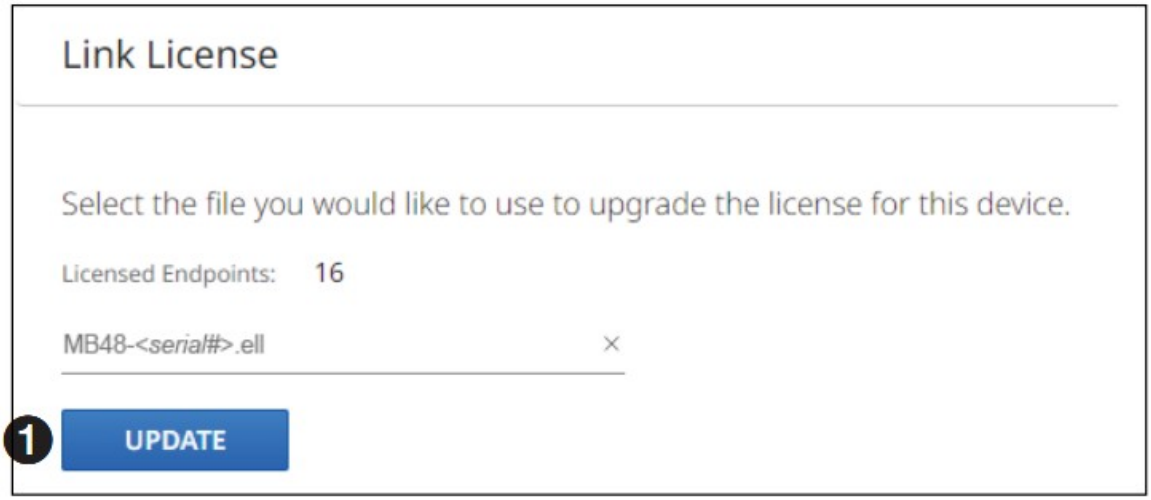

SET MANUALLY
1
SYNC WITH SERVER
Last
4
SYNC NOW
NTP Server #1
3
192.168.255.254
NTP Server #2
3
time.nist.gov
NTP Server #3
2
EDIT
CANCEL
5

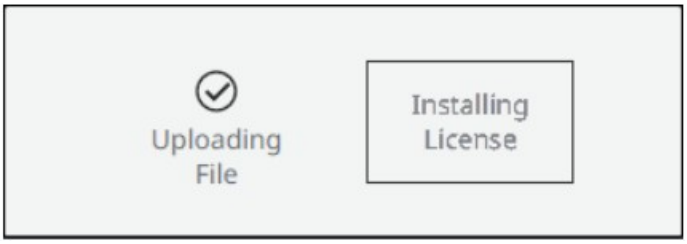

Username/Password
Admin
Admin Password
****
1
EDIT

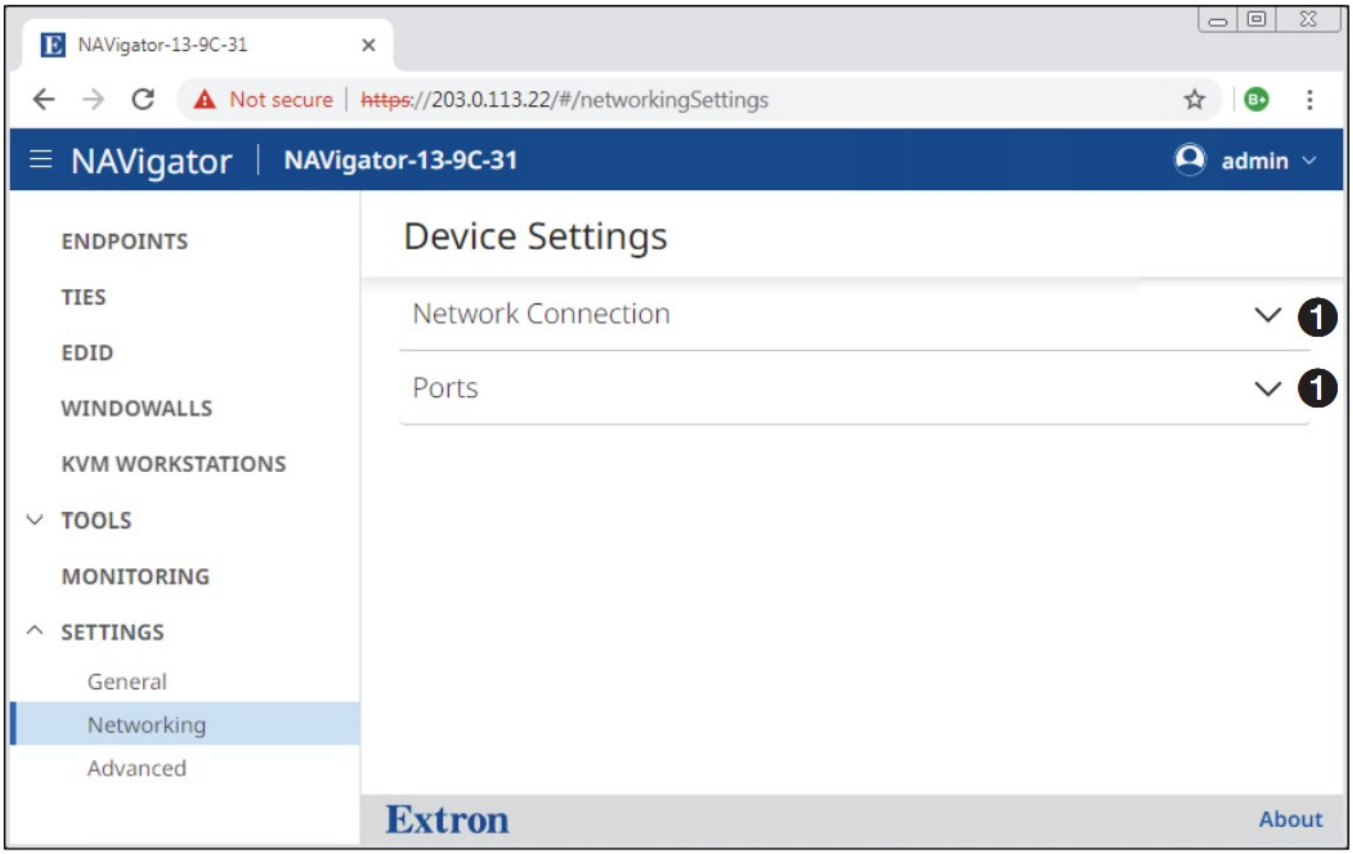

Username/Password
Admin
1
Admin Password
1
Confirm Admin Password
2
SAVE
CANCEL
A
Show Password

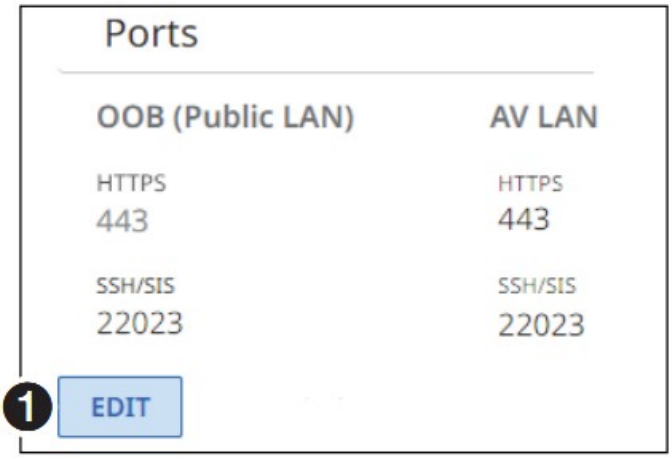

LinkLicense
Select the file you would like to use to upgrade the license for this device.
Licensed Endpoints: 16
1
SELECT FILE
UPDATE

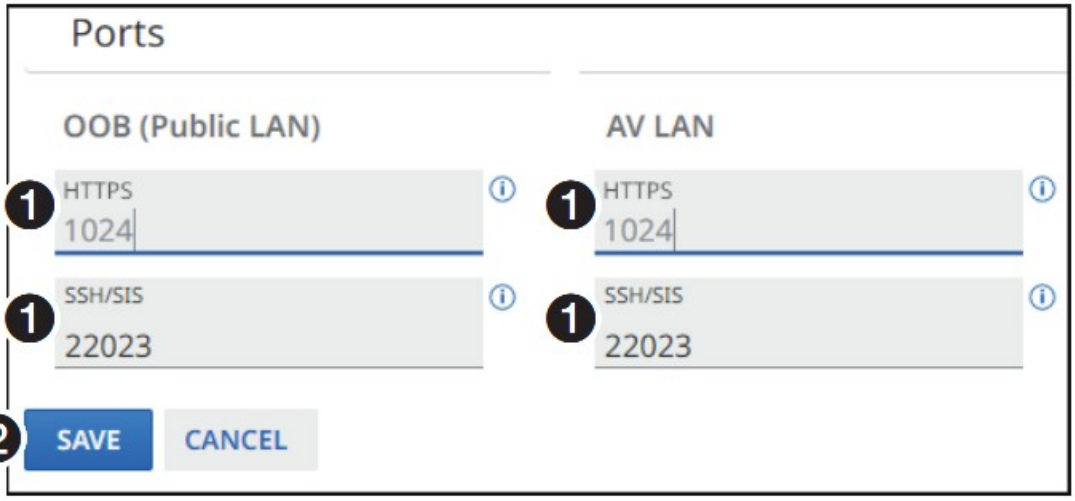

Open
This PC
OSDisk (C:)
Temp
Search Temp
Organize
New folder
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
OSDisk (C:)
Name
Date modified
Type
Size
1
MB48-<serial#>.ell
12/18/2019 7:09 AM
ELL File
File name:
MB48-<serial#>.ell
ELL File (*.ell)
2
Open
Cancel

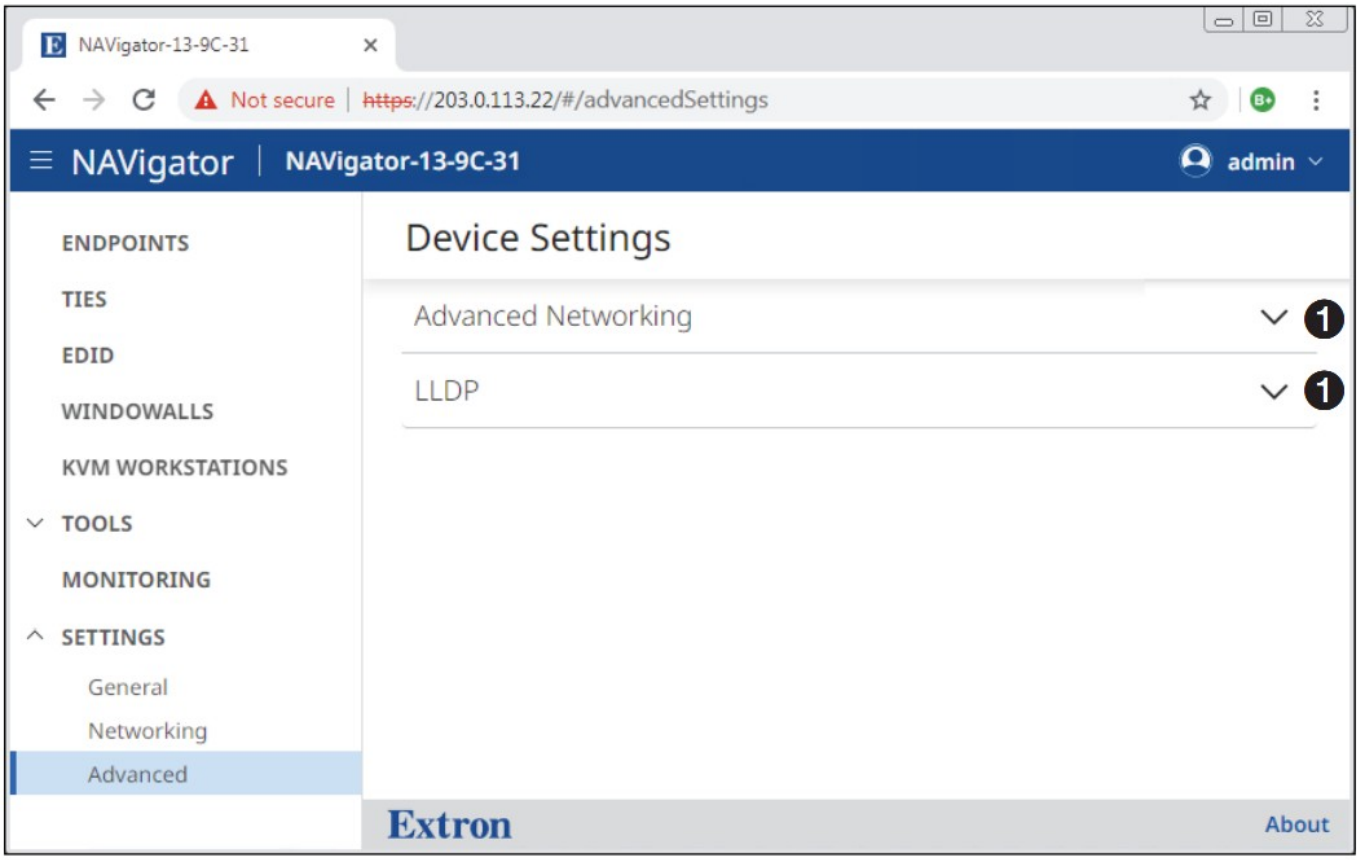

Link License
Select the file you would like to use to upgrade the license for this device.
Licensed Endpoints: 16
MB48-<serial#>.ell
1
UPDATE

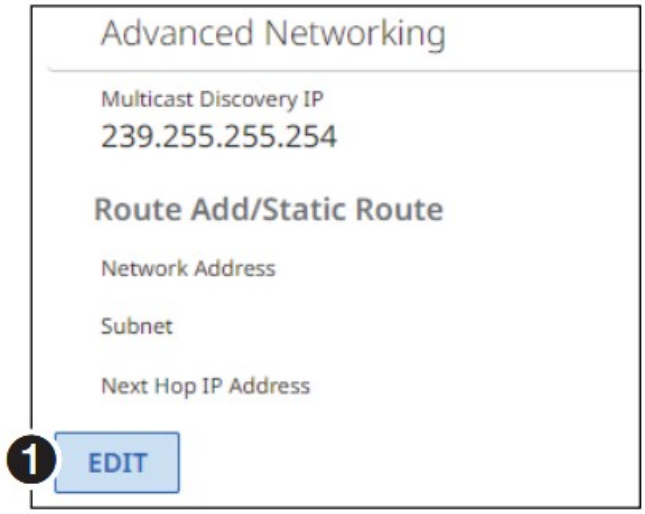

Uploading File
Installing License

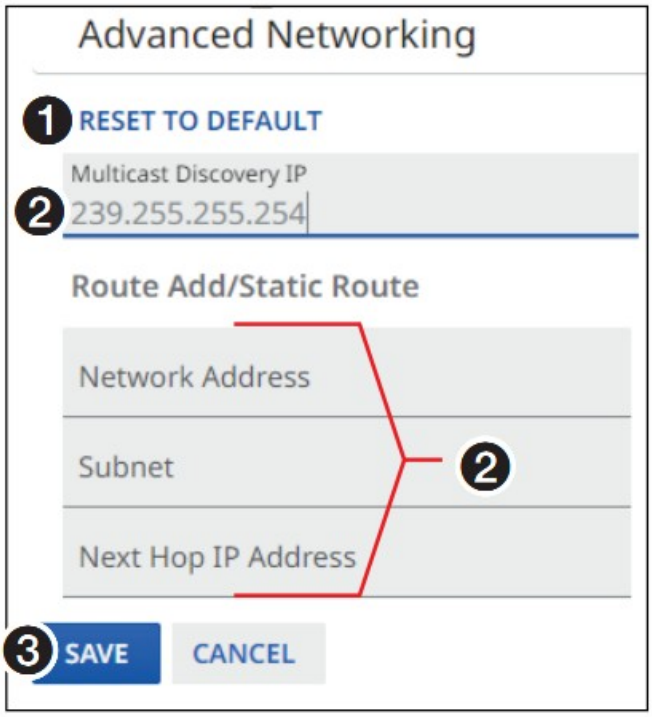

NAVigator-13-9C-31
Not secure https://203.0.113.22/#/networkingSettings
NAVigator
NAVigator-13-9C-31
admin
ENDPOINTS
TIES
EDID
WINDOWALLS
KVM WORKSTATIONS
TOOLS
MONITORING
SETTINGS
General
Networking
Advanced
Device Settings
Network Connection
1
Ports
1
Extron
About

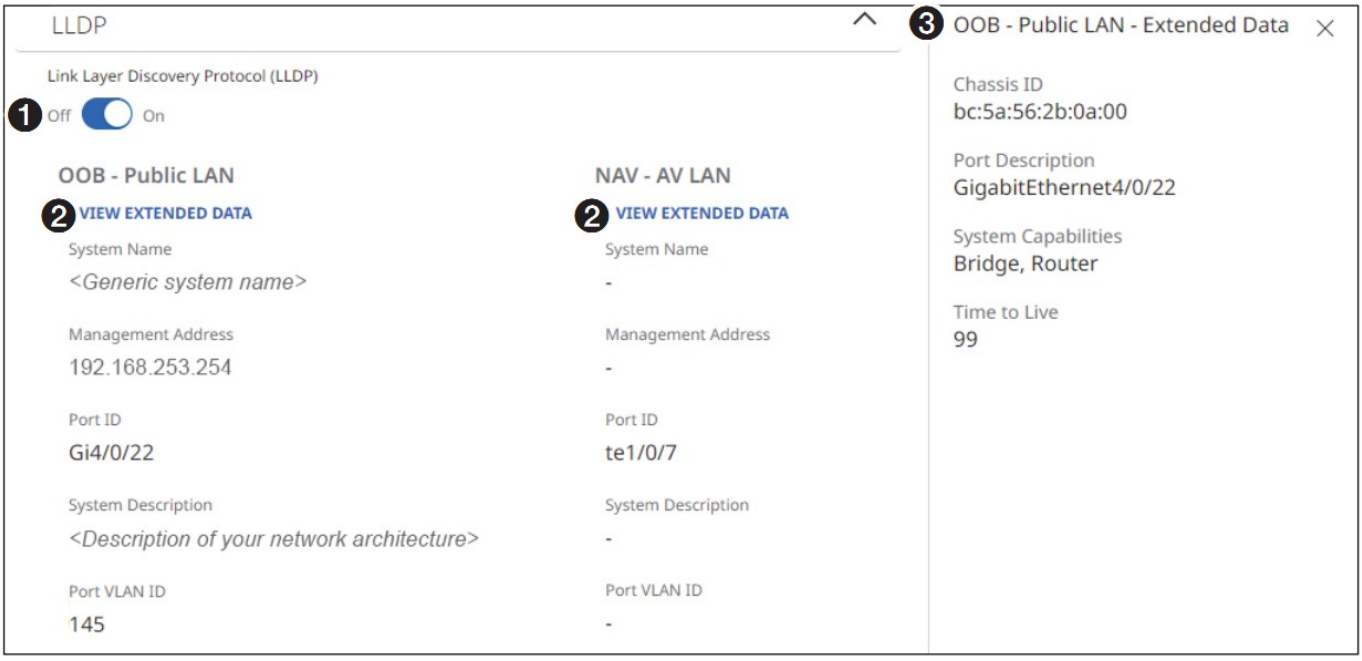

Ports
OOB (Public LAN)
AV LAN
HTTPS
443
HTTPS
443
SSH/SIS
22023
SSH/SIS
22023
1
EDIT

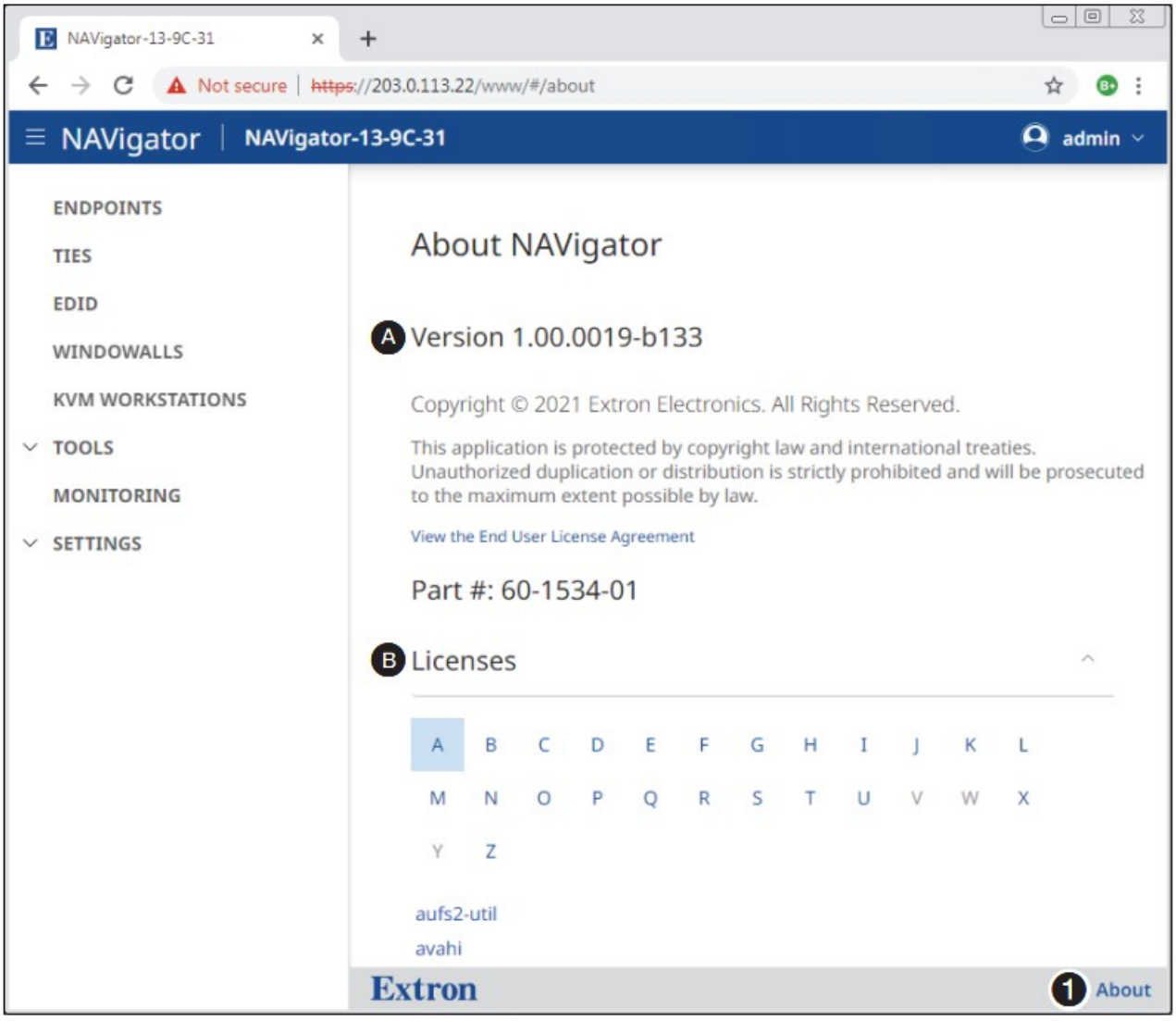

Ports
OOB (Public LAN)
AV LAN
HTTPS
1024
SSH/SIS
22023
HTTPS
1024
SSH/SIS
22023
1
1
1
1
2
SAVE
CANCEL


NAVigator-13-9C-31
Not secure
https://203.0.113.22/#/advancedSettings
NAVigator
NAVigator-13-9C-31
admin
ENDPOINTS
TIES
EDID
WINDOWALLS
KVM WORKSTATIONS
TOOLS
MONITORING
SETTINGS
General
Networking
Advanced
Device Settings
Advanced Networking
LLDP
1
1
Extron
About


Advanced Networking
Multicast Discovery IP
239.255.255.254
Route Add/Static Route
Network Address
Subnet
Next Hop IP Address
1
EDIT


Advanced Networking
1
RESET TO DEFAULT
Multicast Discovery IP
2
239.255.255.254
Route Add/Static Route
Network Address
Subnet
Next Hop IP Address
2
3
SAVE
CANCEL

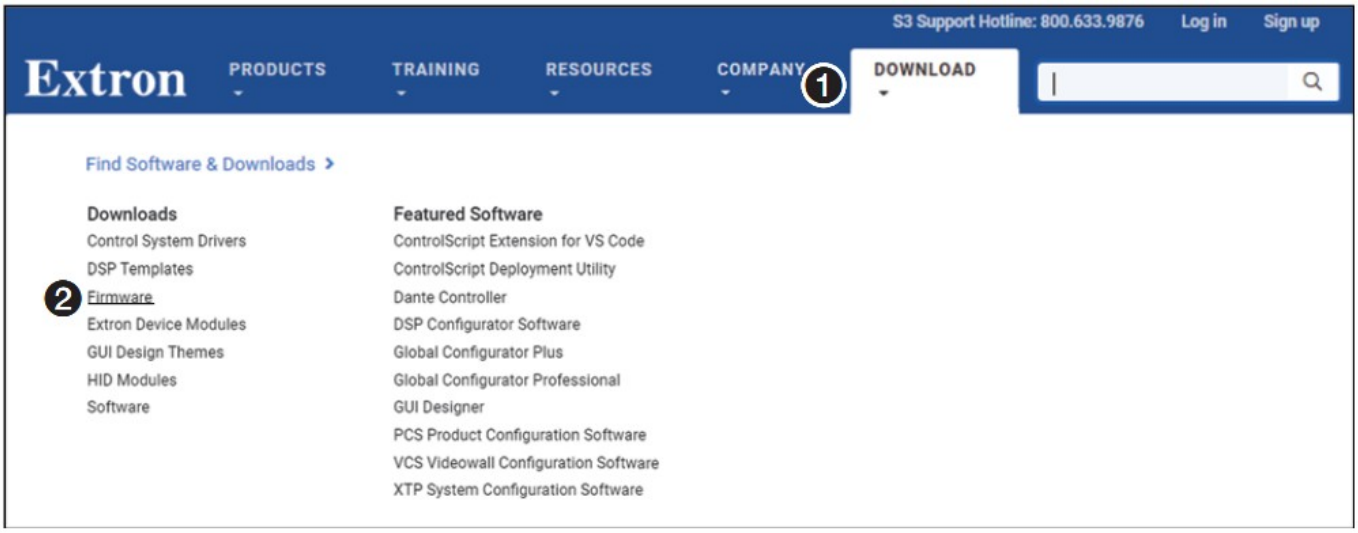

LLDP
Link Layer Discovery Protocol (LLDP)
1
Off
On
OOB - Public LAN
2
VIEW EXTENDED DATA
System Name
<Generic system name>
Management Address
192.168.253.254
Port ID
Gi4/0/22
System Description
<Description of your network architecture>
Port VLAN ID
145
NAV - AV LAN
2
VIEW EXTENDED DATA
System Name
-
Management Address
-
Port ID
te1/0/7
System Description
-
Port VLAN ID
-
3
OOB - Public LAN - Extended Data
Chassis ID
bc:5a:56:2b:0a:00
Port Description
GigabitEthernet4/0/22
System Capabilities
Bridge, Router
Time to Live
99



Space →

ASCII to Hex Conversion Table										Esc	1B	CR	ØD	LF	ØA
	2Ø	!	21	"	22	#	23	$	24	%	25	&	26	'	27
(	28	)	29	*	2A	+	2B	,	2C	-	2D	.	2E	/	2F
Ø	3Ø	1	31	2	32	3	33	4	34	5	35	6	36	7	37
8	38	9	39	:	3A	;	3B	<	3C	=	3D	>	3E	?	3F
@	4Ø	A	41	B	42	C	43	D	44	E	45	F	46	G	47
H	48	I	49	J	4A	K	4B	L	4C	M	4D	N	4E	O	4F
P	5Ø	Q	51	R	52	S	53	T	54	U	55	V	56	W	57
X	58	Y	59	Z	5A	[	5B	\	5C	]	5D	^	5E	_	5F
`	6Ø	a	61	b	62	c	63	d	64	e	65	f	66	g	67
h	68	i	69	j	6A	k	6B	l	6C	m	6D	n	6E	o	6F
p	7Ø	q	71	r	72	s	73	t	74	u	75	v	76	w	77
x	78	y	79	z	7A	{	7B	l	7C	}	7D	~	7E	DEL	7F

← | Esc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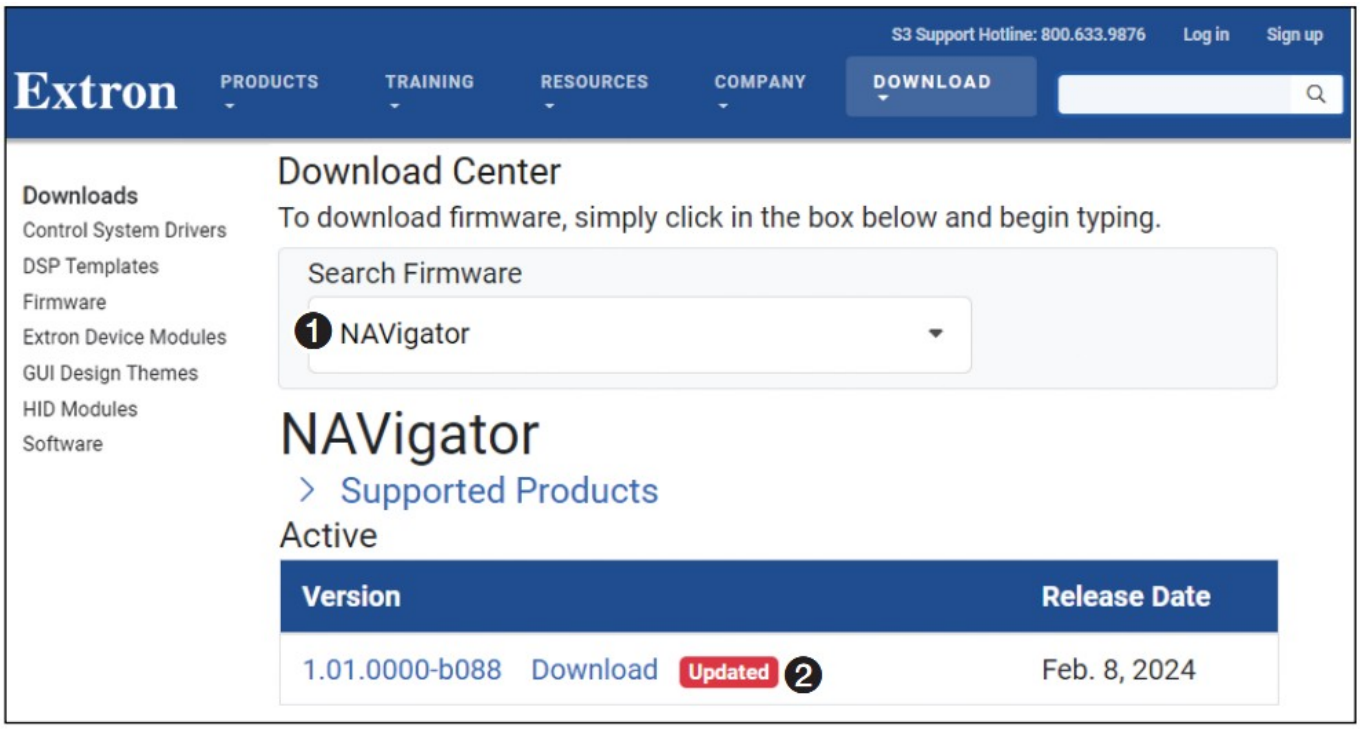
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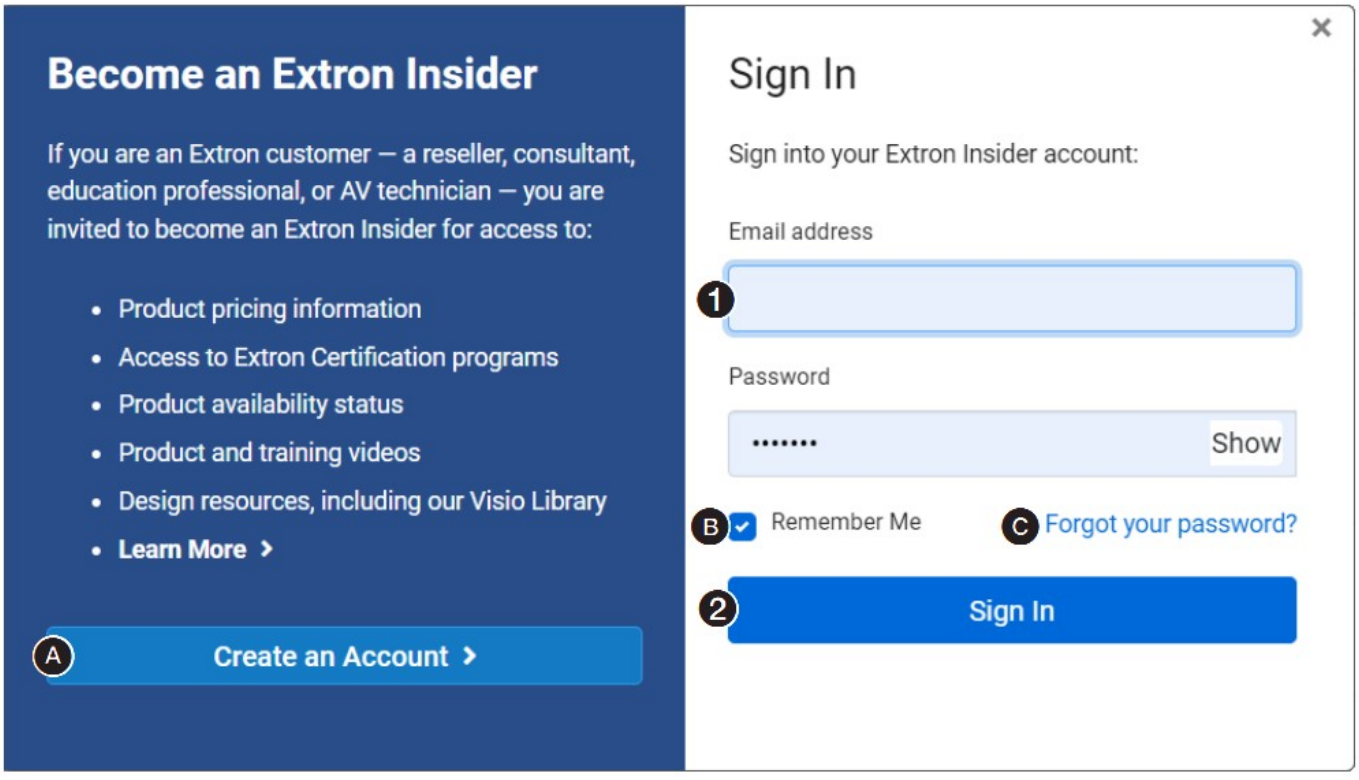
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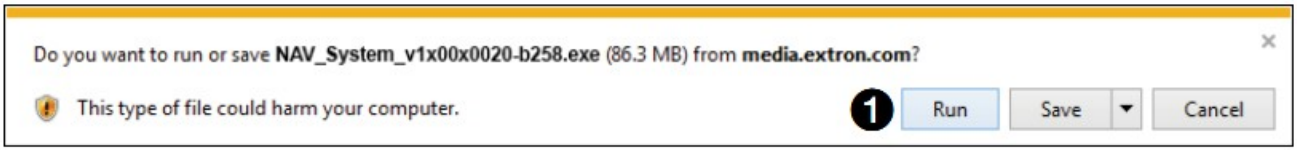

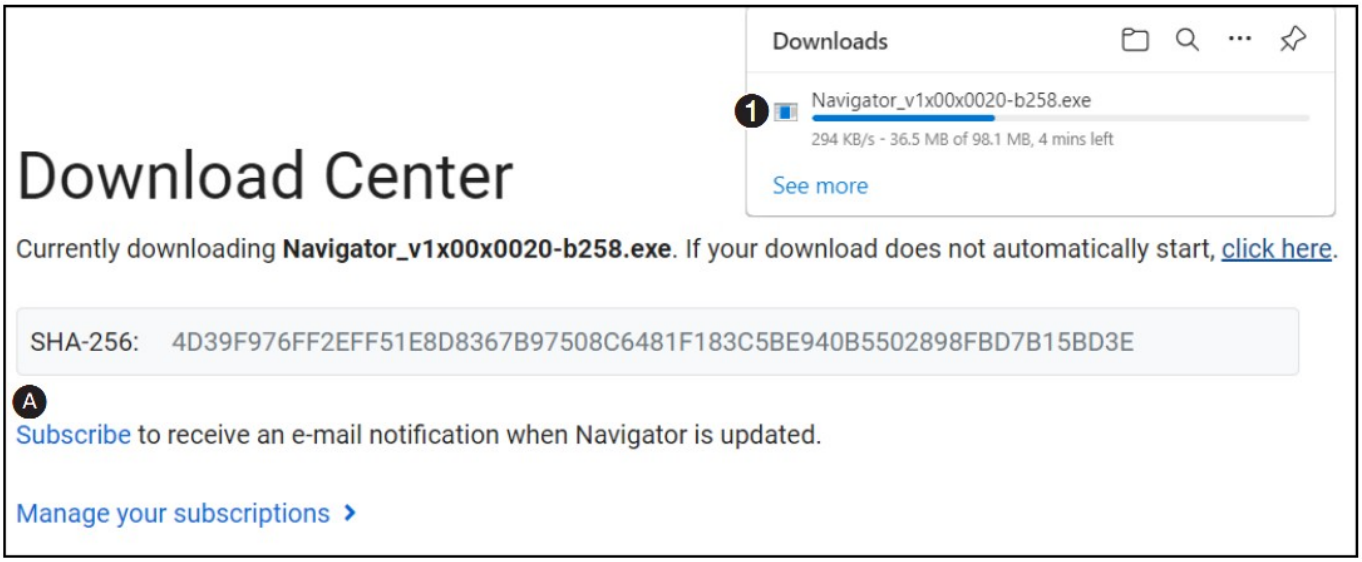

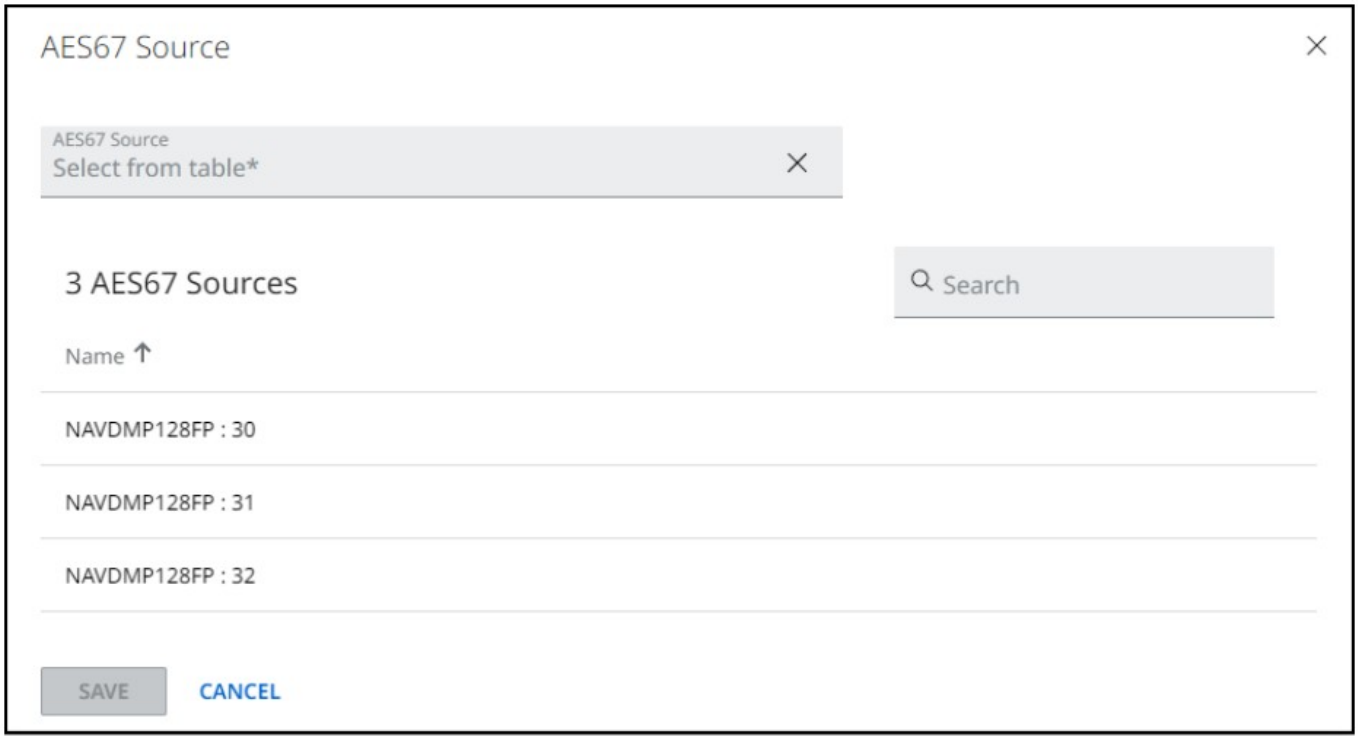

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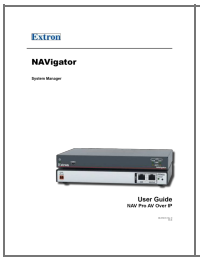	Extron NAVigator System Manager [pdf] User Guide NAVigator System Manager, NAVigator, System Manager, Manager

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