AVX NAV ROUTER

Operational guide for device discovery, routing, configuration, maintenance, and troubleshooting

Purpose: This manual explains the visible AVX Nav Router interface and provides conservative operating procedures based on the captured application state. It is intended to help an operator discover units, review device information, prepare routes, use configuration tools, and recognize conditions that require caution.

Important: Actions such as Take, firmware activation, factory restore, IP changes, reboot, database import, and unit removal can affect live devices or stored configuration. Confirm the target devices and maintenance window before committing them.

Publishing note: The screenshots contain representative device names, IP addresses, MAC addresses, serial numbers, and stream addresses from the captured system. Replace or mask site-specific identifiers before public distribution.

How to use this manual

- Follow procedures in order and verify the result shown in the application before continuing.
- Use Cancel or No when reviewing a dialog without intending to apply a change.
- Treat disabled controls as unavailable for the current device selection or operating state.
- Keep a current backup before importing a database or performing broad configuration changes.

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1 Application overview and navigation

This manual covers five primary work areas across the top of the main window. The application opens to Unit Management in the captured configuration. The routing pages use matrix-style workspaces, while Unit Management provides device-specific controls.

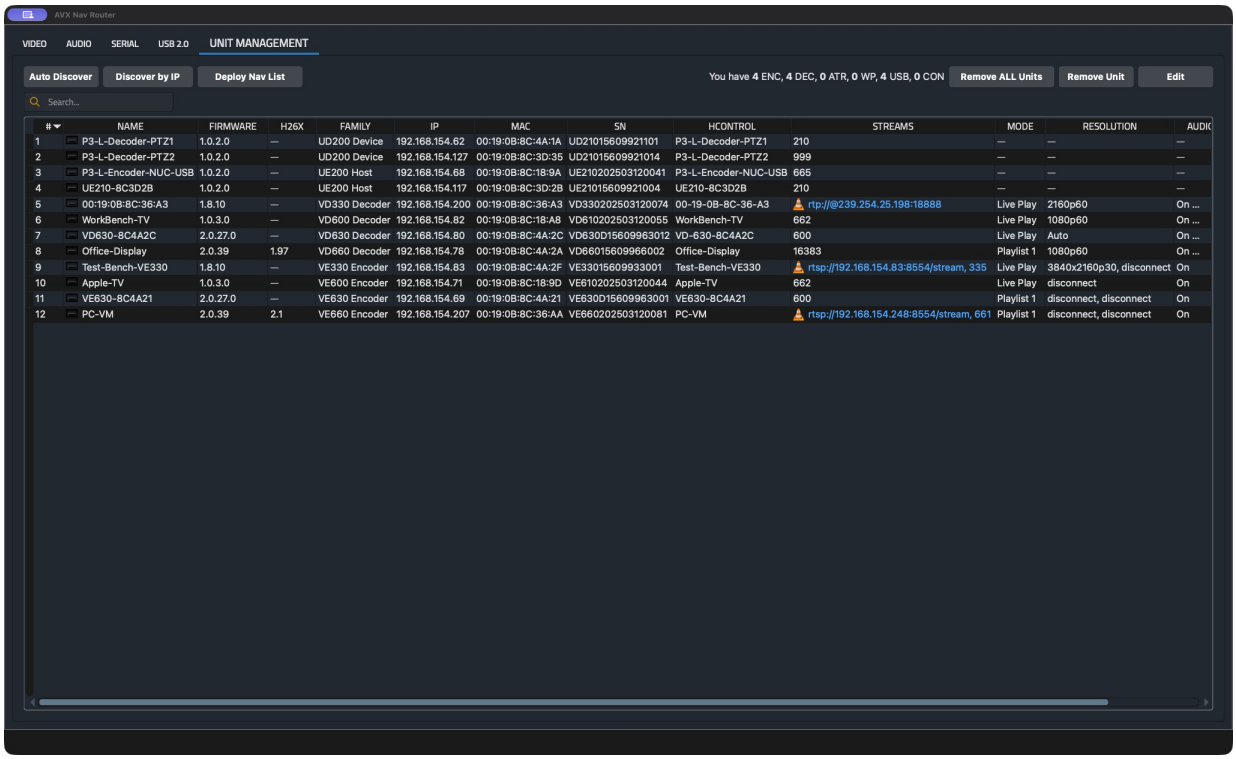


Figure 1. AVX Nav Router main window and Unit Management view

Area	Purpose
Video	Prepare and apply video source-to-destination routes.
Audio	Prepare and apply audio routes independently of video.
Serial	Prepare and apply serial data routes.
USB 2.0	Prepare and apply USB 2.0 host/device routes.
Unit Management	Discover, search, review, edit, deploy, and remove managed units.

Routing page conventions

- A matrix places available sources and destinations on intersecting rows and columns.
- A pending selection does not become the active route until Take is used.
- Cancel discards the pending matrix change before it is applied.
- Color and icon meanings are specific to the page; use the Video Color Key when interpreting video states.

Caution: Verify both endpoints before clicking Take. Applying a route may interrupt content on a destination that is already in service.

2 Unit discovery and management

Unit Management is the device inventory and discovery workspace. It displays device identity, firmware, family, addressing, HControl information, streams, operating mode, resolution, and audio state when those values are available.

Discover units automatically

1. Open Unit Management.
2. Confirm the computer is connected to the intended control network.
3. Click Auto Discover.
4. Allow discovery to finish, then review the unit count and table.
5. Use Search to narrow the list by visible unit information.

Result: Discovered units appear as rows in the Unit Management table. A value shown as a dash is not available in the current device response.

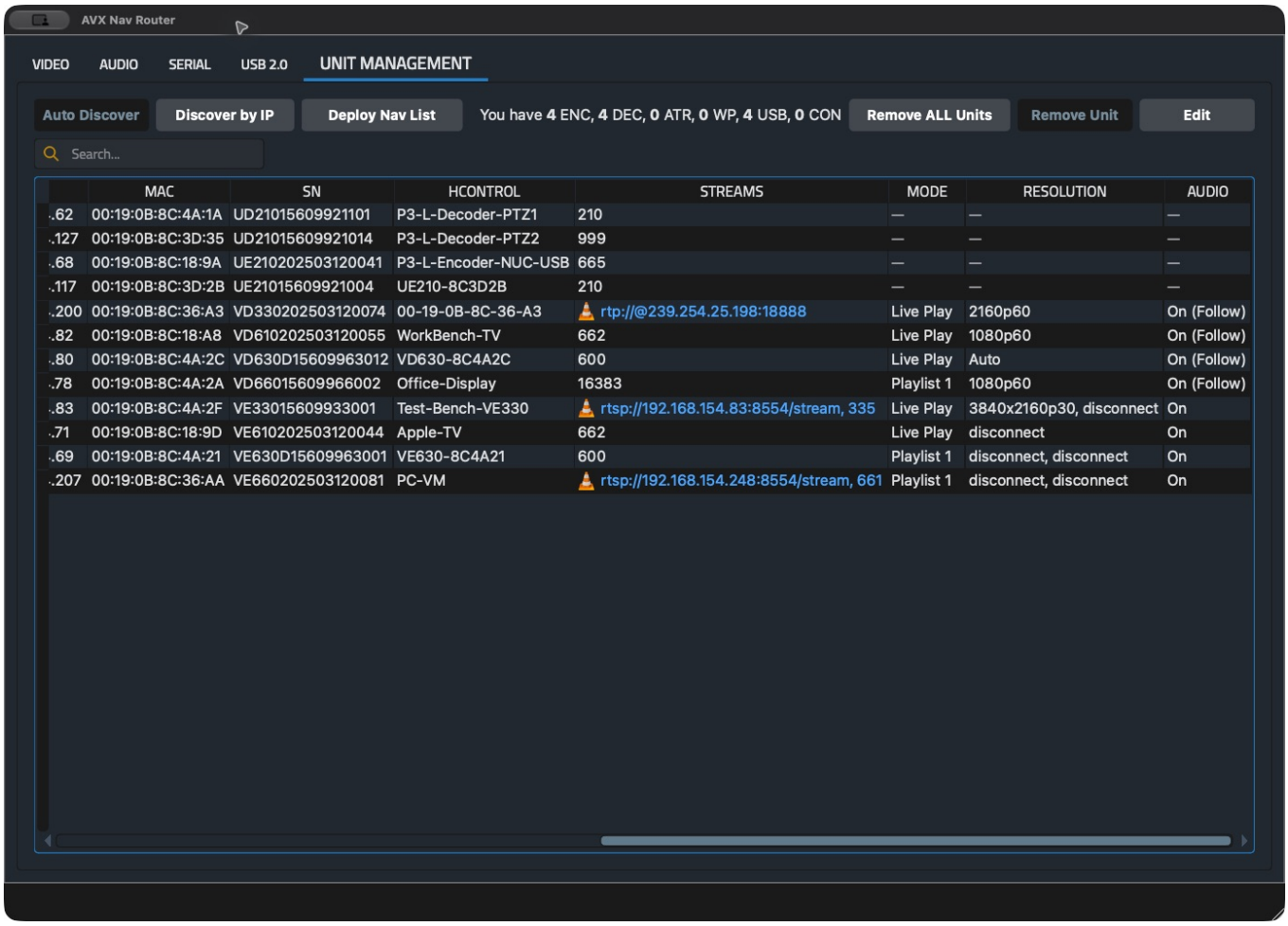


Figure 2. Automatic discovery in progress

During discovery, Auto Discover is temporarily unavailable and the status bar advances through the Discover sequence.

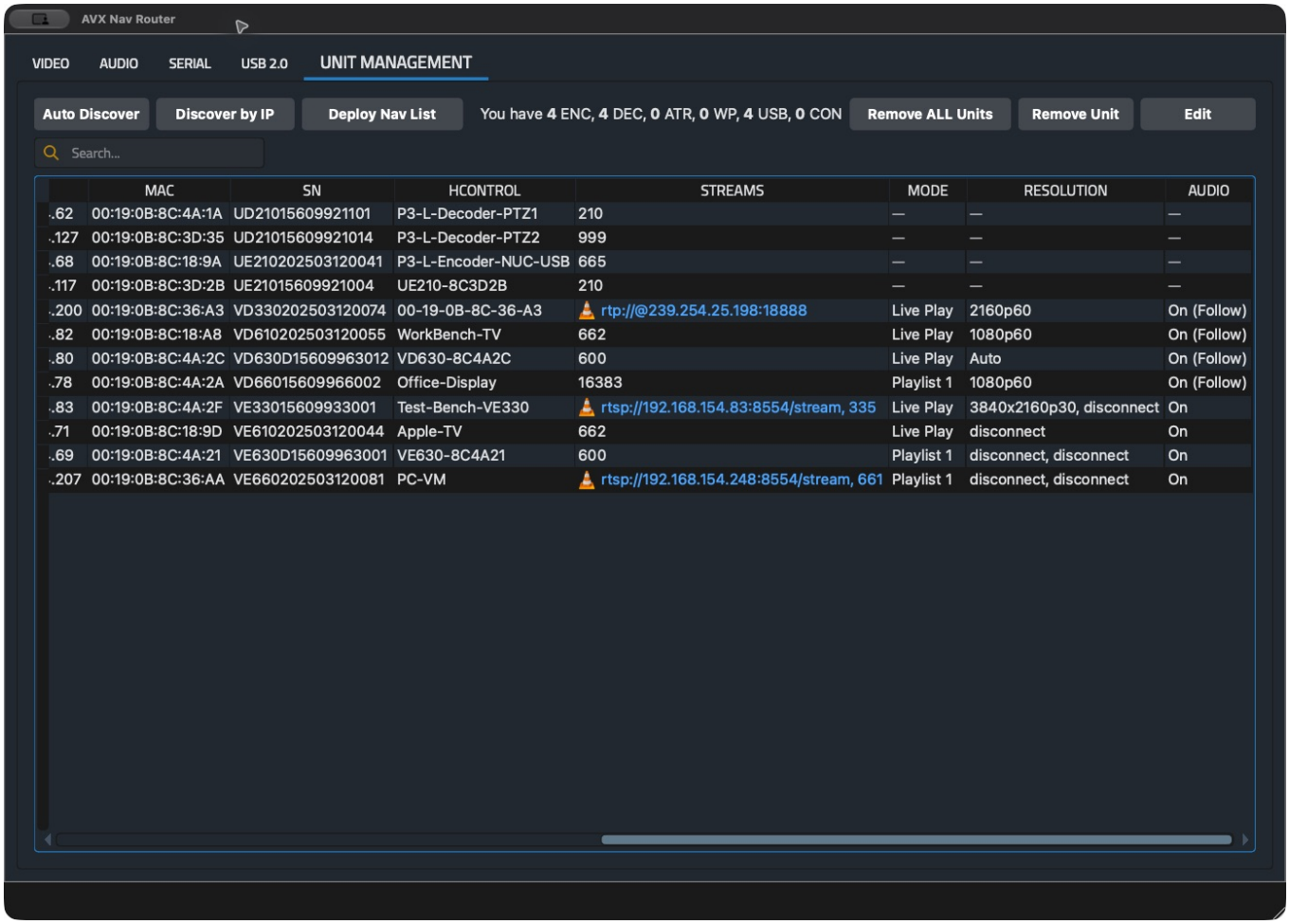


Figure 3. Automatic discovery complete

Observed completion: The scan completed normally and the existing inventory remained available. Session Logs reported Found 0 units, meaning this pass found no additional units; it does not mean the displayed inventory was removed.

Discover by IP range

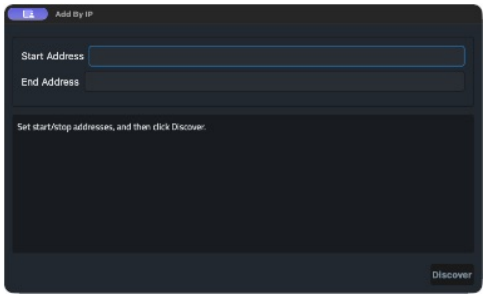


Figure 4. Discover by IP dialog

1. Click Discover by IP.
2. Enter the first address in Start Address.
3. Enter the last address in End Address.
4. Confirm that the range belongs to the intended network.
5. Click Discover and review the status area.

Manage the unit list

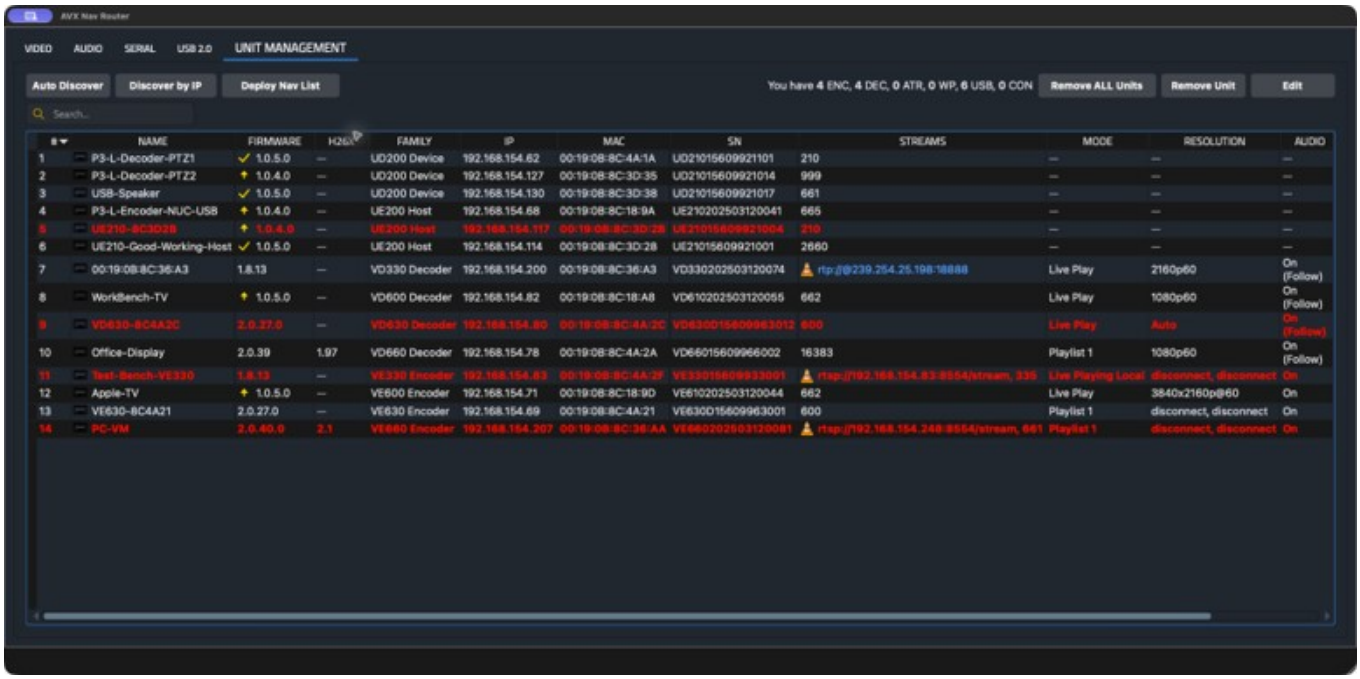


Figure 5. Selected unit with Edit available

Control	Use
Deploy Nav List	Deploy the prepared navigation list to the applicable system or units.
Edit	Open configuration for the selected unit. Confirm the target row before editing.
Remove Unit	Remove the selected unit from the local inventory after confirmation.
Remove ALL Units	Remove every unit from the local inventory after confirmation.
Search	Filter the current list without changing device configuration.

Caution: Remove operations affect the local managed-unit list. They should not be used as a substitute for a device factory reset or network decommissioning procedure.

Editor availability: Select the exact target row before clicking Edit. In the captured live state the Edit command was available, but the selected units did not open a device editor; no fields were changed. Availability can depend on device family, reachability, and supported configuration data.

Interpret firmware status indicators

The Firmware column uses colored checks and arrows to show the status of available firmware:

- **Yellow check:** The device has the latest posted Early Access firmware.
- **Yellow up arrow:** New Early Access firmware is available. Double-click the arrow to open Firmware Downloader.
- **Green check:** The device has the latest posted General Access firmware.
- **Green up arrow:** New General Access firmware is available. Double-click the arrow to open the applicable product webpage.

Early Access indicators are shown only after the installation has been approved for Early Access.

3 Video routing

The Video page provides a matrix for connecting video sources to destinations. Use the matrix to stage a change, review its state, and apply it with Take.

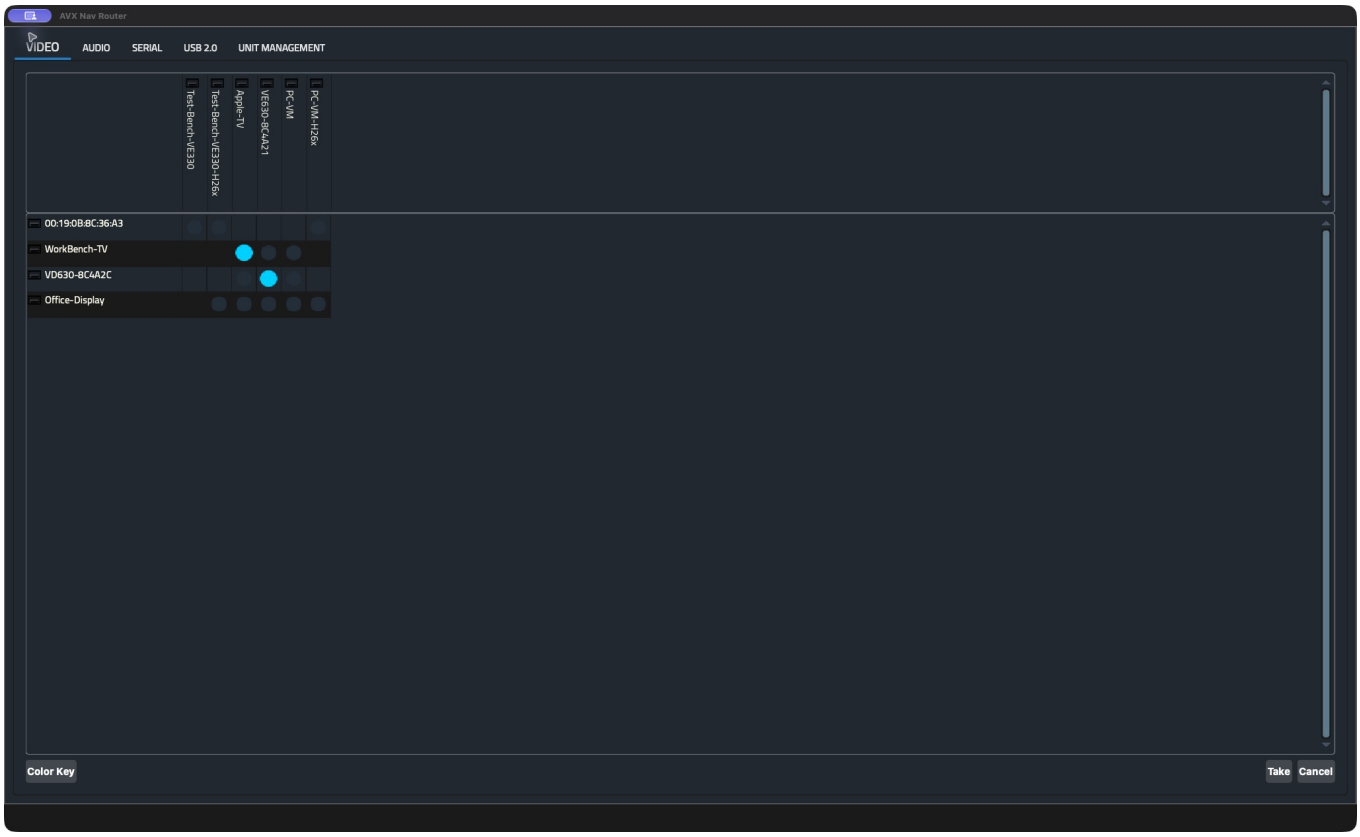


Figure 6. Video routing matrix

Route video

1. Open Video.
2. Locate the desired source and destination in the matrix headers.
3. Select their intersection to stage the route.
4. Check the cell state and confirm the intended source and destination.
5. Click Take to apply the staged route, or Cancel to discard it.
6. Verify the resulting matrix state and the destination output.

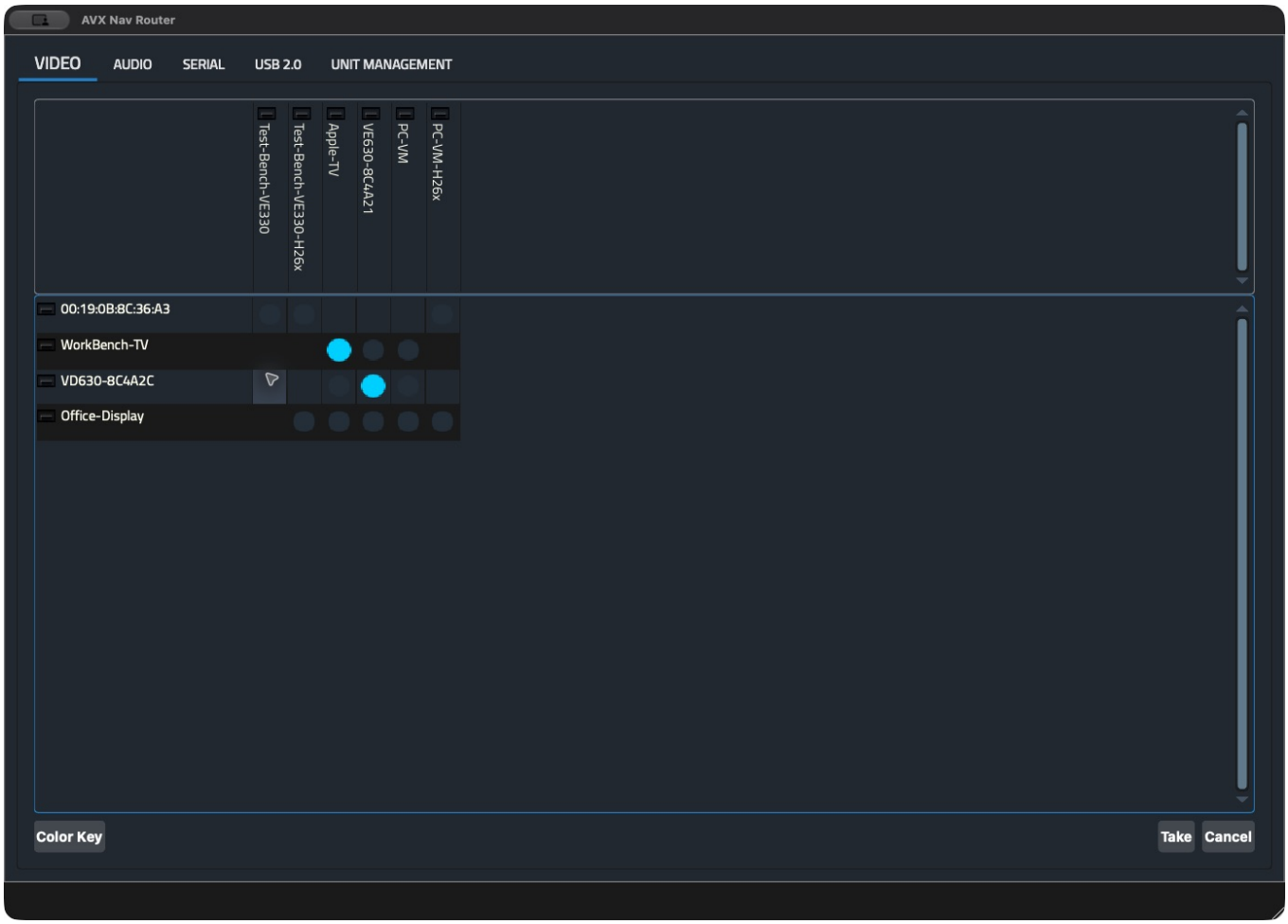


Figure 7. Video route staged before Take

Captured safely: The highlighted intersection shows a staged selection. Cancel was used after capture, so the route was not applied.

Operational check: When a route appears compatible in the matrix but the destination shows no picture, verify source presence, display detection, stream compatibility, and device communication before taking another route.

Interpret the Video Color Key

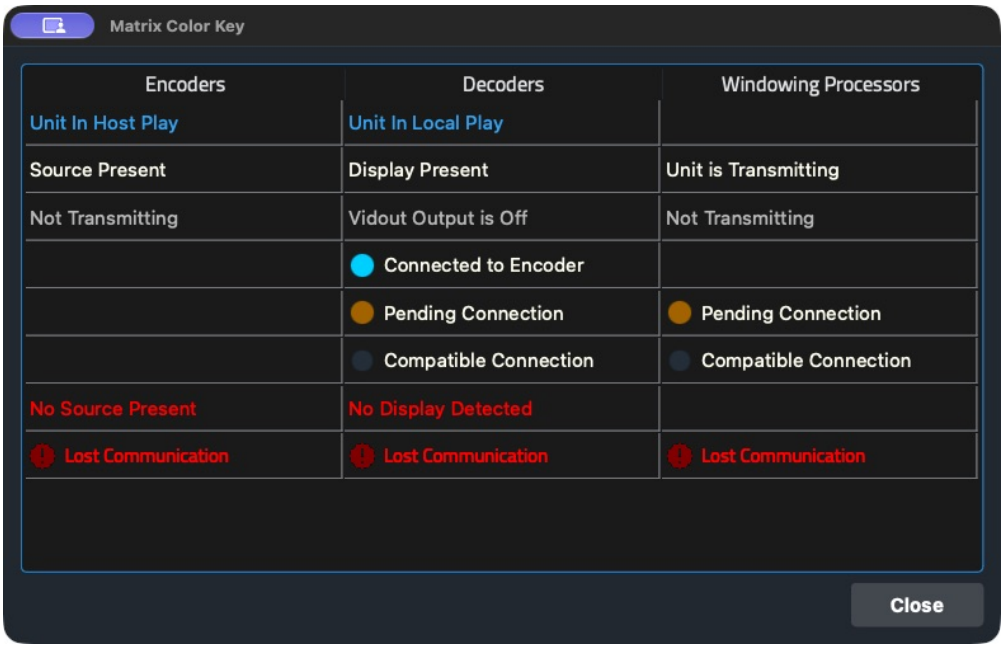


Figure 8. Video matrix color key

State family	Meaning
Presence	Source Present, Display Present, No Source Present, or No Display Detected.
Transmission	Unit is Transmitting or Not Transmitting.
Connection	Connected to Encoder, Pending Connection, or Compatible Connection.
Playback	Unit in Host Play or Unit in Local Play.
Fault	Lost Communication indicates that the unit is not responding.

4 Audio routing

The Audio page uses a dedicated matrix so audio can be routed separately from video. The same staged-change pattern applies: select an intersection, review the pending change, then use Take or Cancel.

When available, select **Follow Video** to have the audio destination follow the active video route. Otherwise, select an audio source directly to route audio independently.

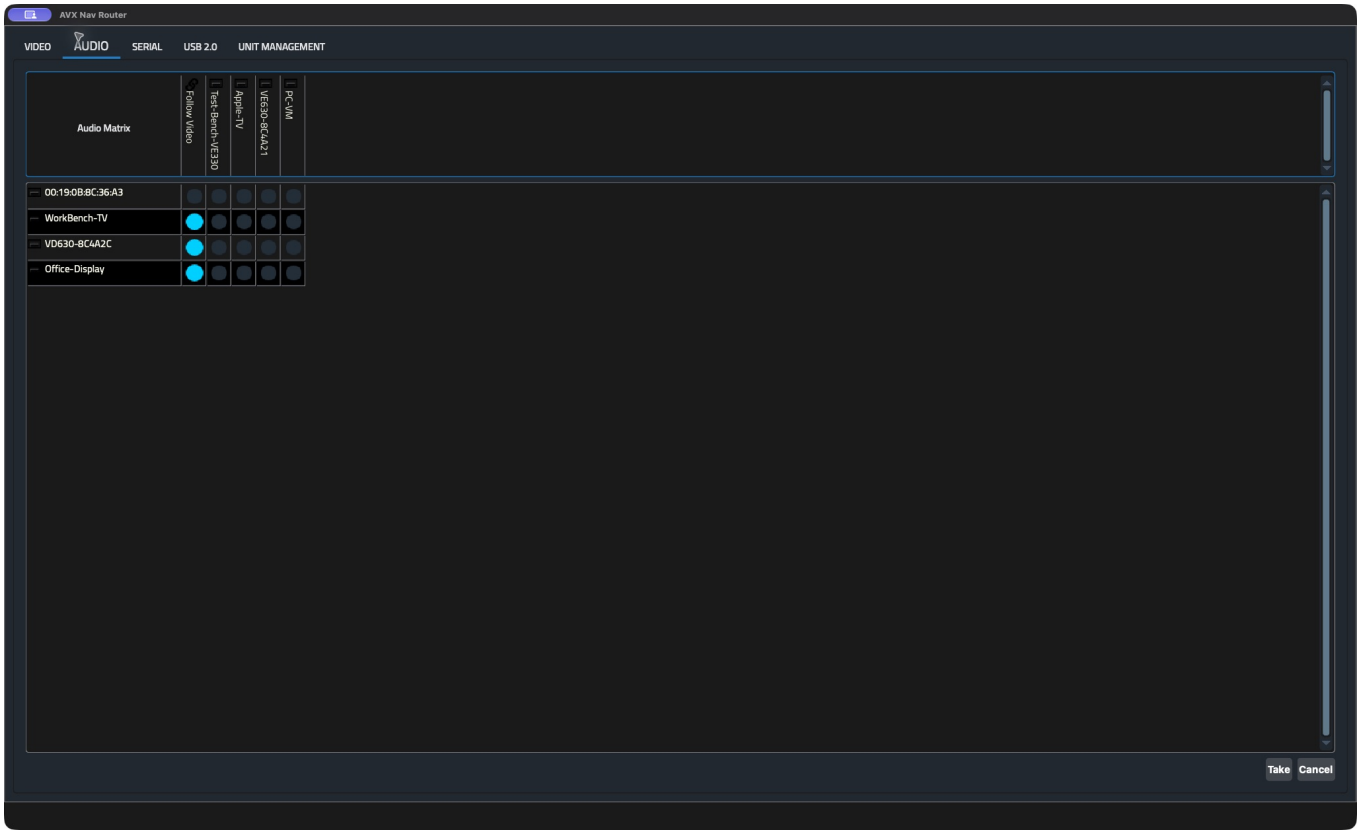


Figure 9. Audio routing matrix

1. Open Audio.
2. Locate the required audio source and destination.
3. Select the matrix intersection.
4. Confirm that the selection represents the intended audio path.
5. Click Take to apply the route, or Cancel to discard it.
6. Listen at the destination and confirm the expected program audio.

Caution: Changing an audio route can interrupt program sound even when the related video path is unchanged.

5 Serial routing

The Serial page connects supported serial endpoints. It is intended for control data paths between compatible devices.

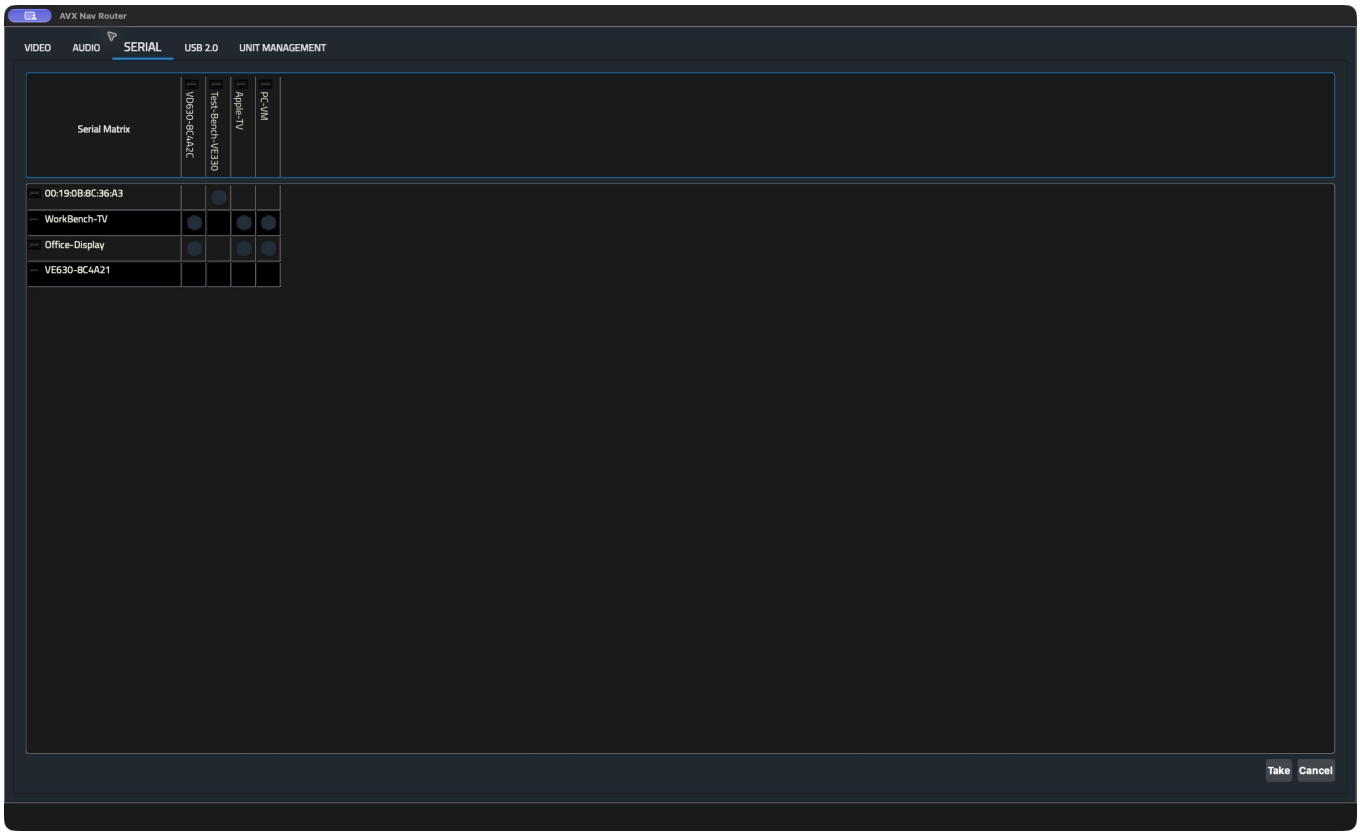


Figure 10. Serial routing matrix

1. Open Serial.
2. Identify the transmitting and receiving serial endpoints.
3. Select the required matrix intersection.
4. Review the pending connection.
5. Click Take to apply it, or Cancel to discard it.
6. Confirm control traffic at both endpoints using an appropriate device-level test.

Compatibility: A matrix selection does not guarantee that the connected systems use matching baud rate, data format, or command syntax. Verify those settings at the endpoints.

6 USB 2.0 routing

The USB 2.0 page routes supported USB host and device endpoints. USB routes can affect keyboard, mouse, touch, storage, camera, or other attached functions depending on the endpoint design.

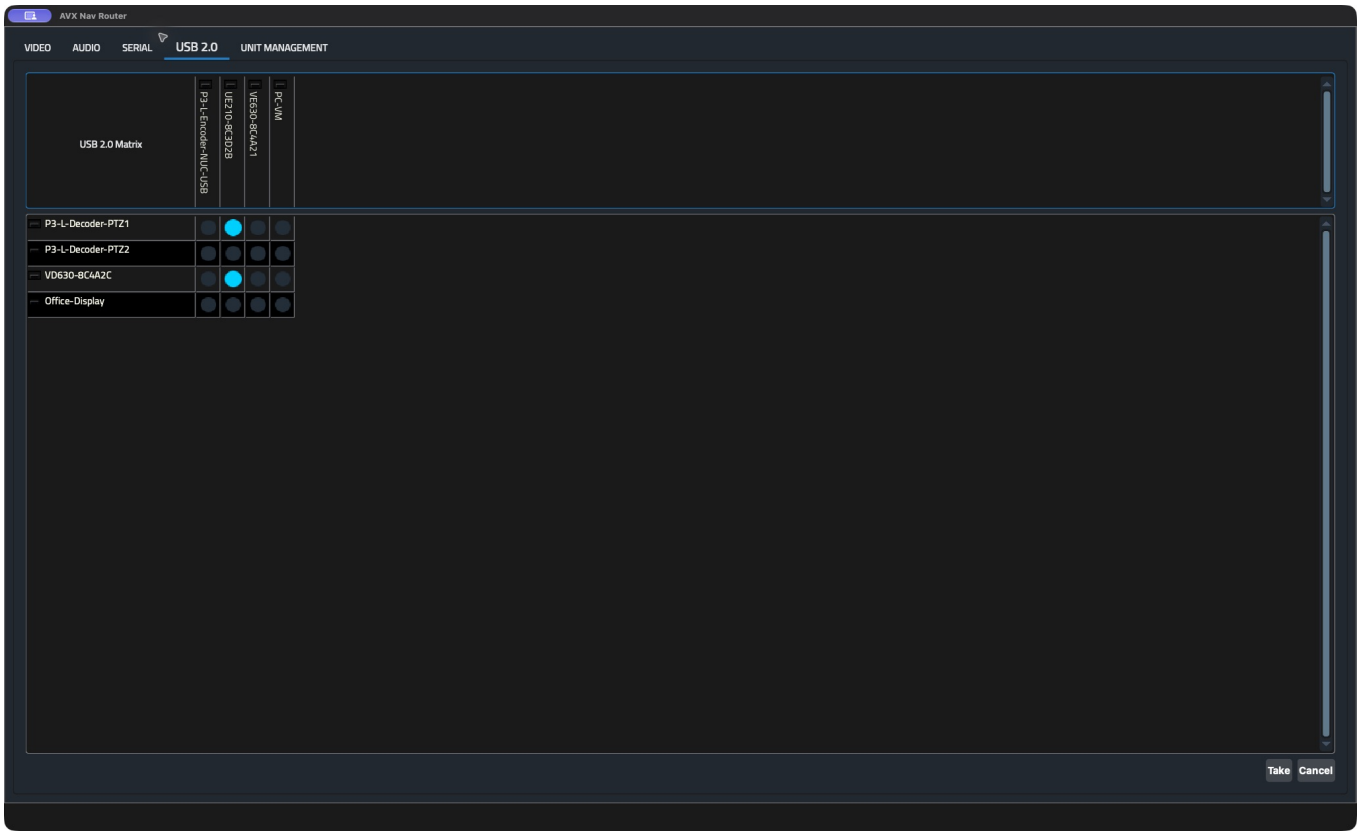


Figure 11. USB 2.0 routing matrix

1. Open USB 2.0.
2. Identify the required USB host and remote USB device endpoint.
3. Select the matrix intersection.
4. Confirm the endpoints before applying the route.
5. Click Take to apply the route, or Cancel to discard it.
6. Verify device enumeration and operation at the host.

Caution: Moving an active USB device can disconnect it from its current host. Stop file transfers and other device activity before changing the route.

7 Deploy NAV List

Deploy NAV List opens the navigation allowlist matrix for supported devices. Destination units are listed in rows and available sources are shown in columns. Use the matrix to review the permitted navigation relationships before deployment.

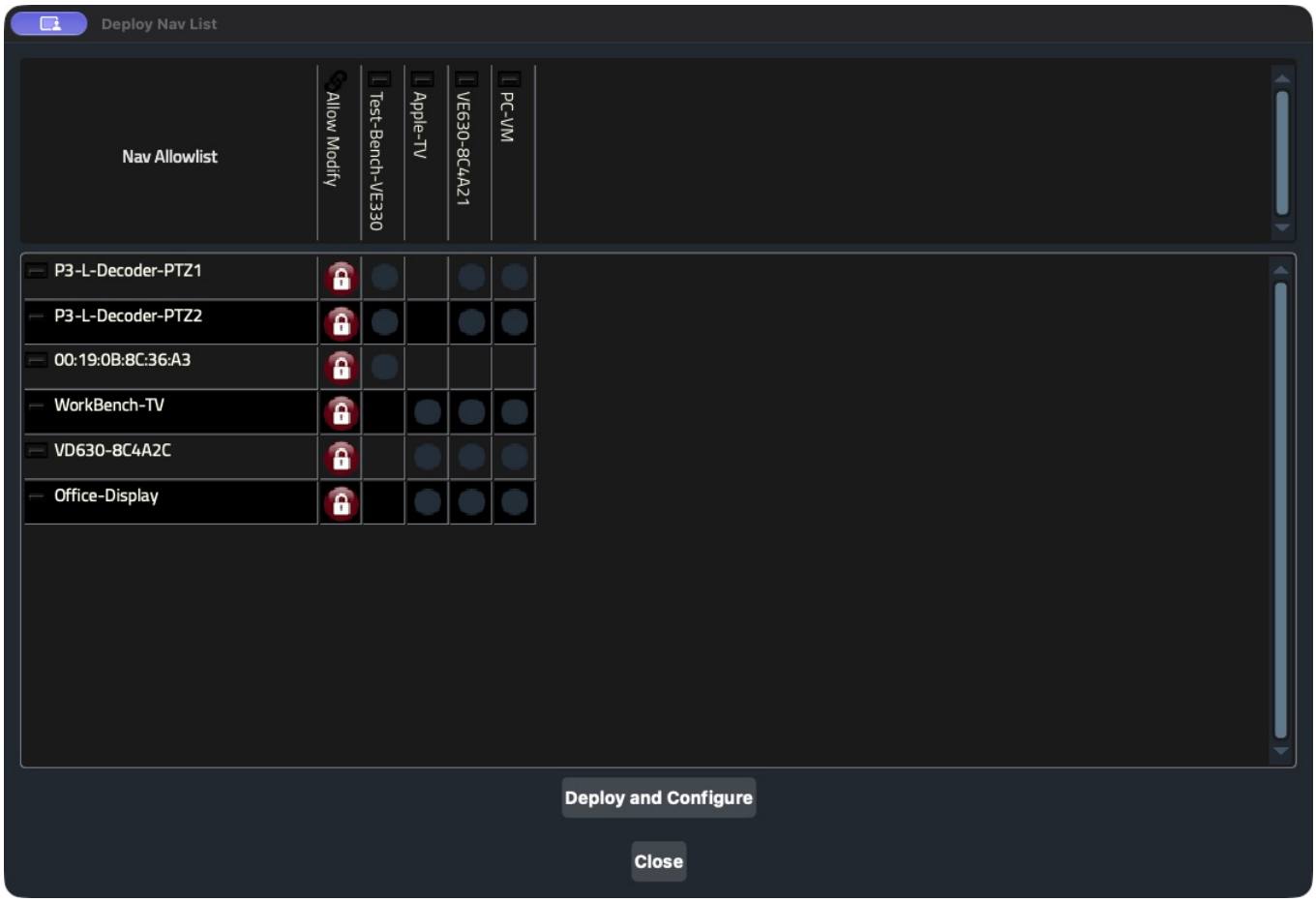


Figure 12. Deploy NAV List dialog

Review and deploy the navigation list

1. Open Unit Management and click Deploy Nav List.
2. Confirm that the expected destination units appear in the rows and the intended source units appear in the columns.
3. Review each matrix intersection and the current Allow Modify status.
4. Change only the relationships approved for the site design.
5. Click Deploy and Configure only during an approved maintenance window, or click Close to leave without deploying.
6. After deployment, verify navigation behavior at the affected endpoints.

Caution: Deploy and Configure can change navigation permissions on multiple units. Confirm the complete matrix and affected device list before applying it.

8 Tools and device configuration

The Tools menu contains broad network, configuration, firmware, serial-command, and grouping functions. Open a tool only after confirming the current unit inventory and network context.

Batch Config

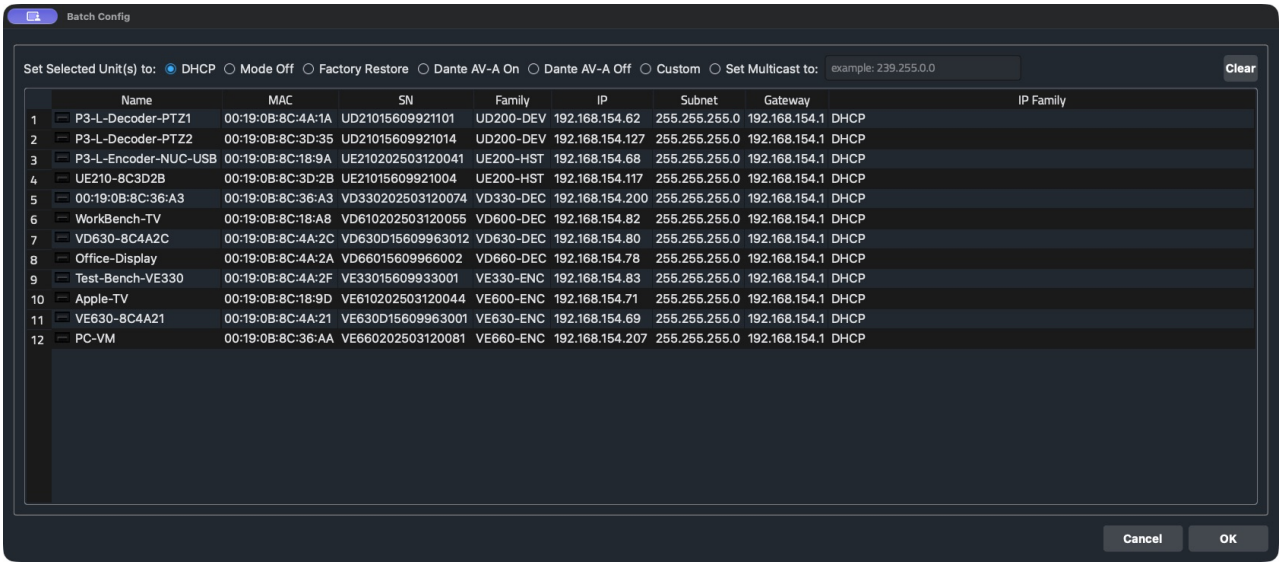


Figure 13. Batch Config dialog

Option	Use and caution
DHCP	Set selected units to obtain addressing by DHCP.
Mode Off	Turn the supported encoder mode off for selected units.
Factory Restore	Restore selected units. This is destructive to configuration.
Dante AV-A On or Off	Enable or disable the supported Dante AV-A mode.
Custom	Send a supported custom command only when the exact command is known.
Set Multicast to	Assign the multicast value entered in the adjacent field.

1. Open Tools and choose Batch Config.
2. Select only the intended unit rows.
3. Choose one configuration action.
4. Review addressing and unit identity in the table.
5. Click OK only during an approved maintenance window; otherwise click Cancel.

EDID Configuration

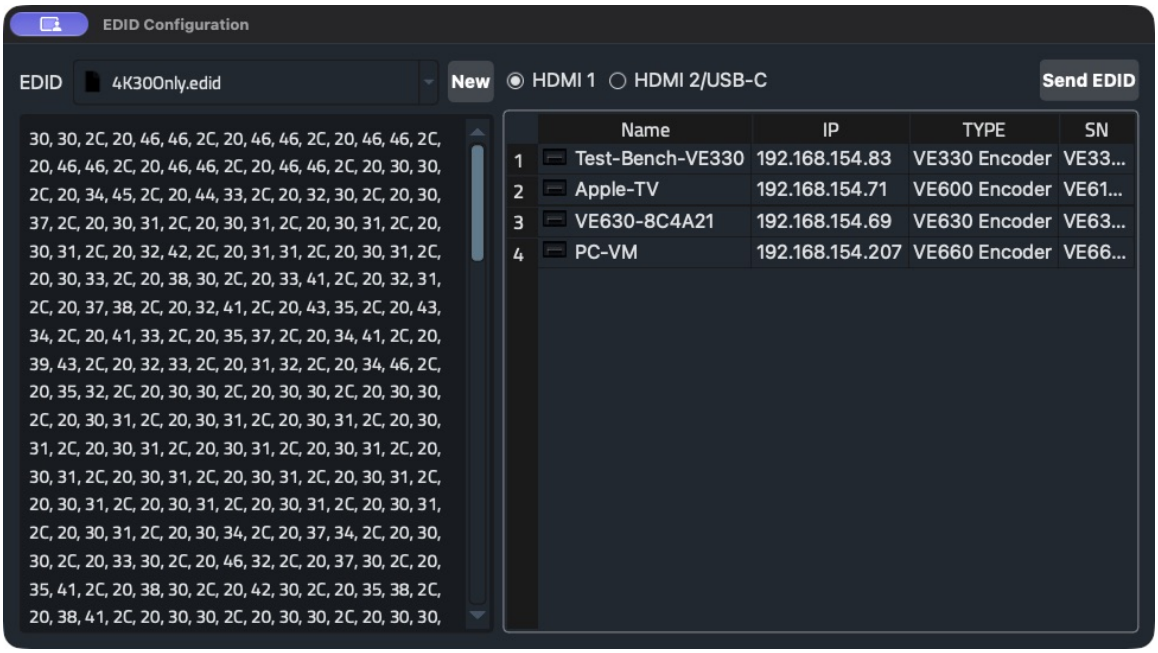
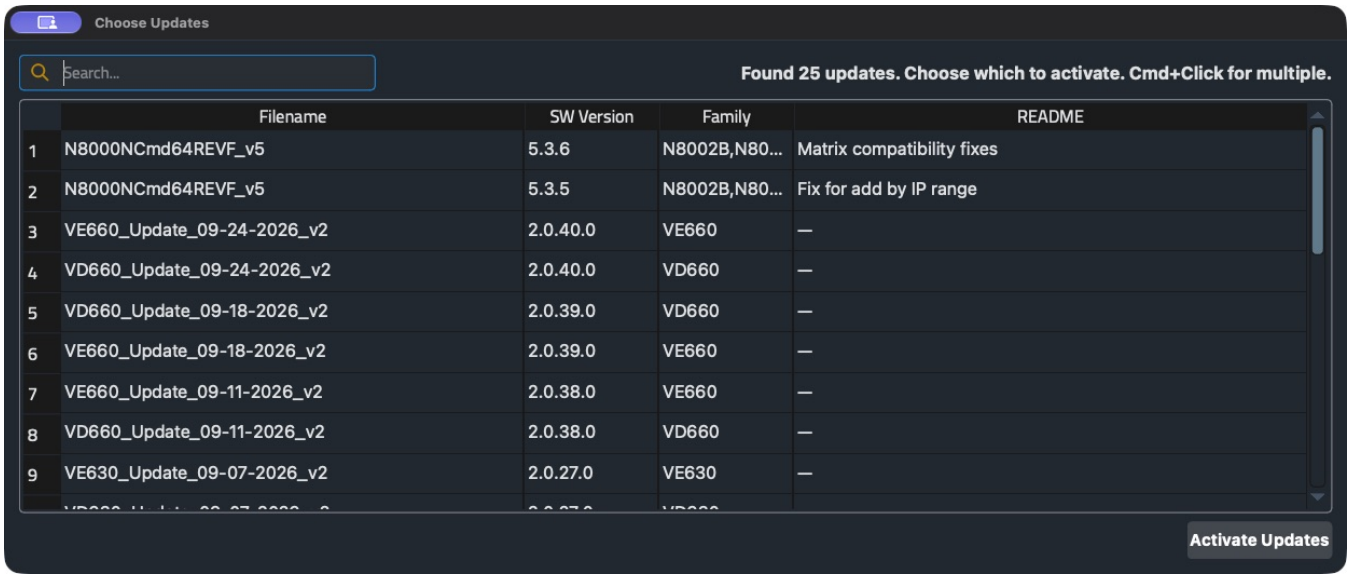


Figure 14. EDID Configuration dialog

1. Open Tools and choose EDID Configuration.
2. Select an existing EDID profile, or use New only when creating an approved profile.
3. Review the EDID data and select HDMI 1 or HDMI 2/USB-C.
4. Click Send EDID only after confirming the target input and required display format.
5. Verify source and display behavior after the device processes the new EDID.

Caution: An incompatible EDID can remove picture or limit available formats until a valid EDID is restored.

Firmware Updater



	Filename	SW Version	Family	README
1	N8000NCmd64REVF_v5	5.3.6	N8002B,N80...	Matrix compatibility fixes
2	N8000NCmd64REVF_v5	5.3.5	N8002B,N80...	Fix for add by IP range
3	VE660_Update_09-24-2026_v2	2.0.40.0	VE660	—
4	VD660_Update_09-24-2026_v2	2.0.40.0	VD660	—
5	VD660_Update_09-18-2026_v2	2.0.39.0	VD660	—
6	VE660_Update_09-18-2026_v2	2.0.39.0	VE660	—
7	VE660_Update_09-11-2026_v2	2.0.38.0	VE660	—
8	VD660_Update_09-11-2026_v2	2.0.38.0	VD660	—
9	VE630_Update_09-07-2026_v2	2.0.27.0	VE630	—

Figure 15. Firmware Updater selection page

1. Open Tools and choose Firmware Updater.
2. Search or select only the package approved for the exact product family.
3. Verify the package version, supported models, release note, power stability, and network path.
4. Activate the update only during an approved maintenance window.
5. Do not interrupt power or network connectivity while an update is active.
6. After completion, rediscover the unit and verify the reported firmware version.

Serial Commands

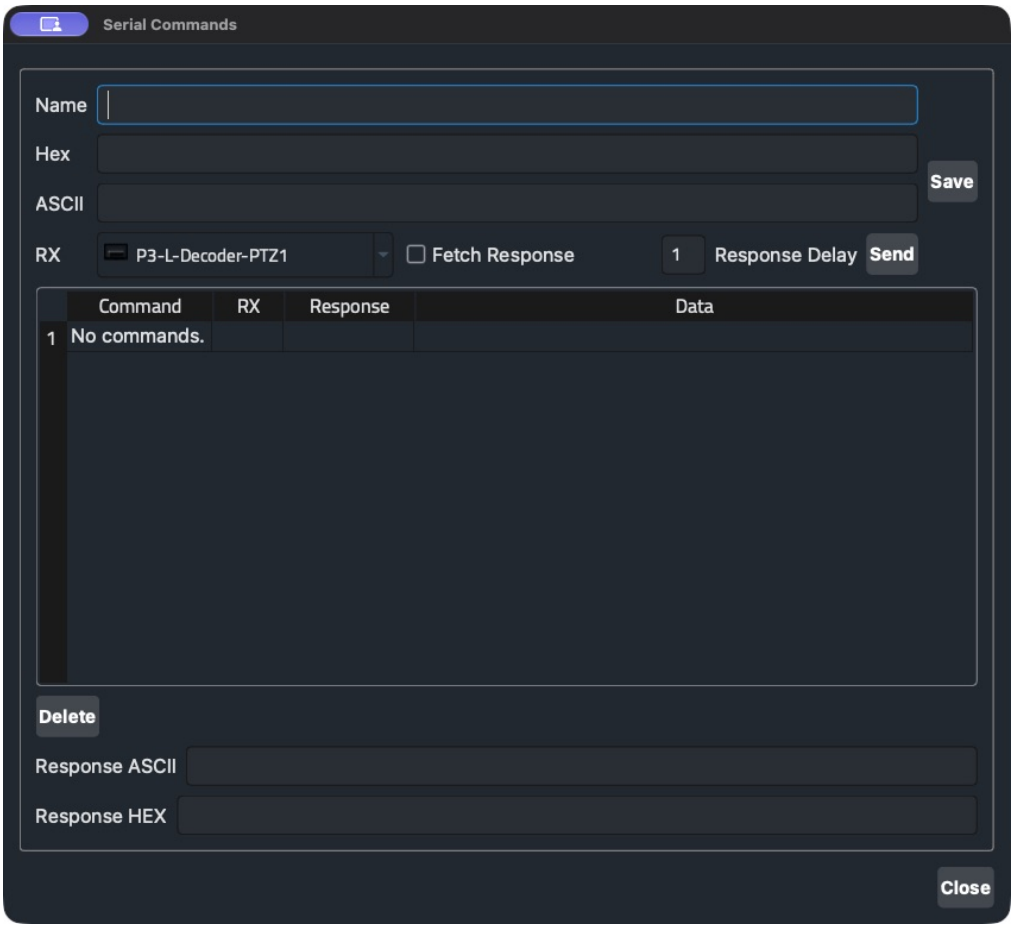


Figure 16. Serial Commands dialog

1. Open Tools and choose Serial Commands.
2. Enter a descriptive Name.
3. Enter either the Hex or ASCII command representation.
4. Select the intended receiver in RX.
5. Enable Fetch Response and set Response Delay when a reply is required.
6. Use Send for a controlled test. Review Response ASCII and Response HEX.
7. Use Save only for a verified command that should remain in the command list.

Unit Groups

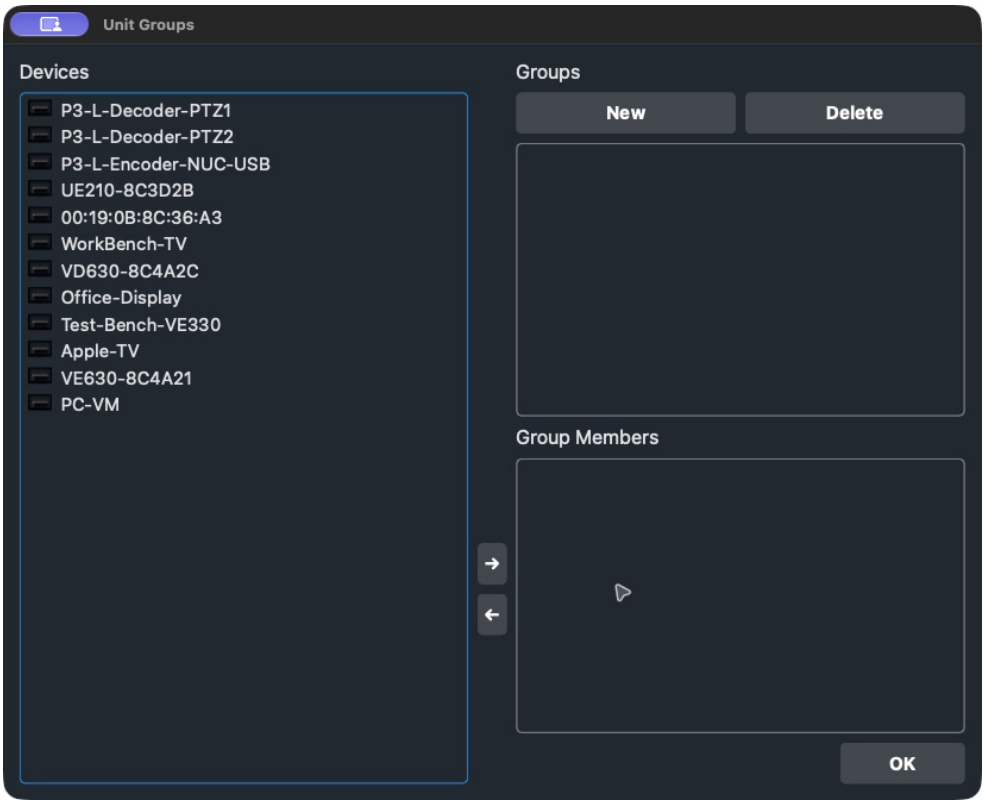


Figure 17. Unit Groups dialog

1. Open Tools and choose Unit Groups.
2. Click New and name the group.
3. Select units in Devices and use the right arrow to add them.
4. Use the left arrow to remove selected group members.
5. Review Group Members and click OK to save the group.

9 Application settings

Preferences is available from the AVX Nav Router application menu on macOS. Cancel closes the dialog without applying changes; OK saves the current selections.

Display settings

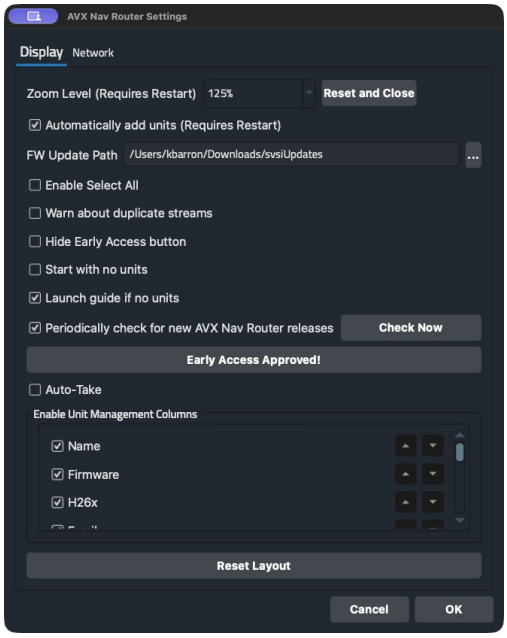


Figure 18. Display settings page

Setting	Purpose
Zoom Level	Set interface scale. The page indicates that restart is required.
Automatically add units	Control startup behavior for discovered units. Restart is required.
FW Update Path	Choose the folder containing firmware update packages.
Enable Select All	Expose broader selection behavior where supported.
Warn about duplicate streams	Enable duplicate-stream warnings.
Start with no units	Launch without preloading units.
Launch guide if no units	Open guidance when the inventory is empty.
Periodically check for releases	Enable software update checks.
Auto-Take	Apply supported routing changes without a separate Take action.
Unit Management Columns	Show, hide, and reorder inventory columns.

Caution: Auto-Take changes the routing workflow by removing the normal review step. Enable it only when immediate route application is intentional.

Network settings

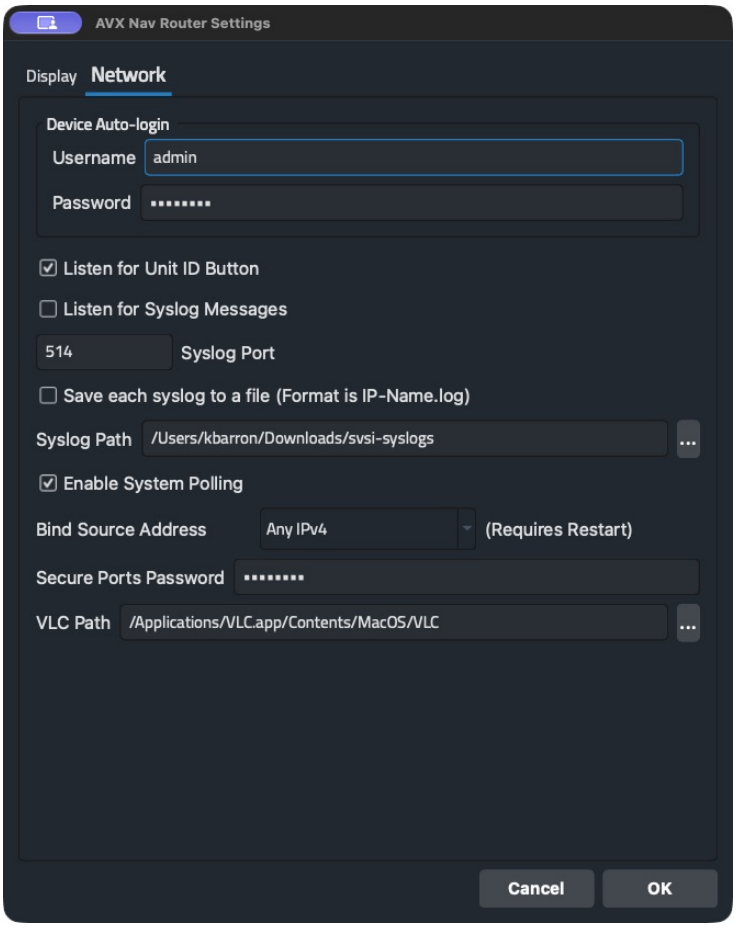


Figure 19. Network settings page

Setting	Purpose
Device Auto-login	Store the username and password used to access supported devices.
Listen for Syslog Messages	Listen for device syslog traffic on the configured port.
Save each syslog to a file	Write per-device logs to the selected Syslog Path.
Enable System Polling	Poll the managed system for current status.
Bind Source Address	Choose the local IPv4 source address used by the application. Restart may be required.
Secure ports password	Provide the credential needed for supported secure-port functions.
VLC Path	Choose the VLC executable used for compatible stream playback.

Security: Protect stored device credentials and exported settings according to the site security policy. Do not publish screenshots that reveal unmasked credentials.

10 Early Access

Early Access provides approved users with access to pre-release AVX NAV Router capabilities. The Display settings page shows the current approval state and includes a preference for hiding the Early Access button. See Figure 18.

Control or state	Purpose
Early Access Approved	Indicates that the current installation or user is approved for Early Access features.
Hide Early Access button	Removes the Early Access entry from the normal interface without changing the approval state.
Check Now	Checks for available AVX NAV Router releases when release checking is enabled.

1. Open Preferences and select Display.
2. Confirm the Early Access approval status shown on the page.
3. Leave Hide Early Access button cleared when the entry must remain visible, or select it when the site does not want the entry shown.
4. Click OK to save the display preference, or Cancel to leave it unchanged.

Note: Early Access behavior can change between builds. Use it only under the applicable approval and support guidance.

Authorize another computer for Early Access

After Early Access has been approved, use **Export** to copy the authorization code to the clipboard. On another computer, open the Early Access Enrollment window, select **Import**, and paste the authorization code. This authorizes the computer without requiring a separate enrollment request.

Protect the authorization code and share it only with authorized personnel.

11 Data transfer and menu reference

The Menu, Tools, Troubleshoot, Help, and application menus provide data-transfer and administrative functions. Some Troubleshoot items are enabled only when the application state supports them.

Menu	Command	Purpose
Menu	Export CSV	Export unit information in CSV format.
Menu	Import CSV	Import supported CSV data.
Menu	Export Database	Create a database backup or transfer file.
Menu	Import Database	Load a database file. Back up the current database first.
Tools	Refresh Network	Refresh network information used by the application.
Tools	Batch Config	Apply a common configuration action to selected units.
Tools	EDID Configuration	View, create, and send EDID data.
Tools	Firmware Updater	Select and activate supported update packages.
Tools	Serial Commands	Create, send, save, and review serial commands.
Tools	Unit Groups	Create groups and manage group membership.
Troubleshoot	Broadcast IP Reset	Reset supported unreachable devices to DHCP when enabled.
Troubleshoot	Network LLDP Information	Review LLDP network information when available.
Troubleshoot	Syslog Viewer	View collected syslog messages when listening is enabled.
Troubleshoot	Session Logs	Review logs for the current or previous session.
Help	HARMAN Support	Open the HARMAN support destination.
Help	Priority Help	Open the priority-help destination.

Data protection: Database and CSV import can replace or add operational data. Validate the source file, create a backup, and confirm the target environment before importing.

Export CSV

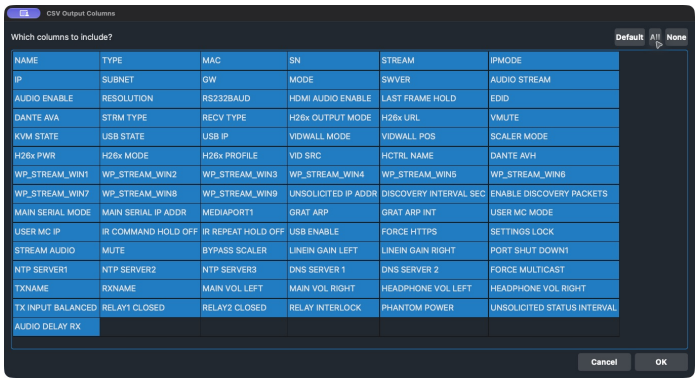


Figure 20. Export CSV column selection dialog

Choose Default or All to control the exported column set, then continue only when the intended data scope is clear. The documentation capture was canceled before a file was written.

Import CSV

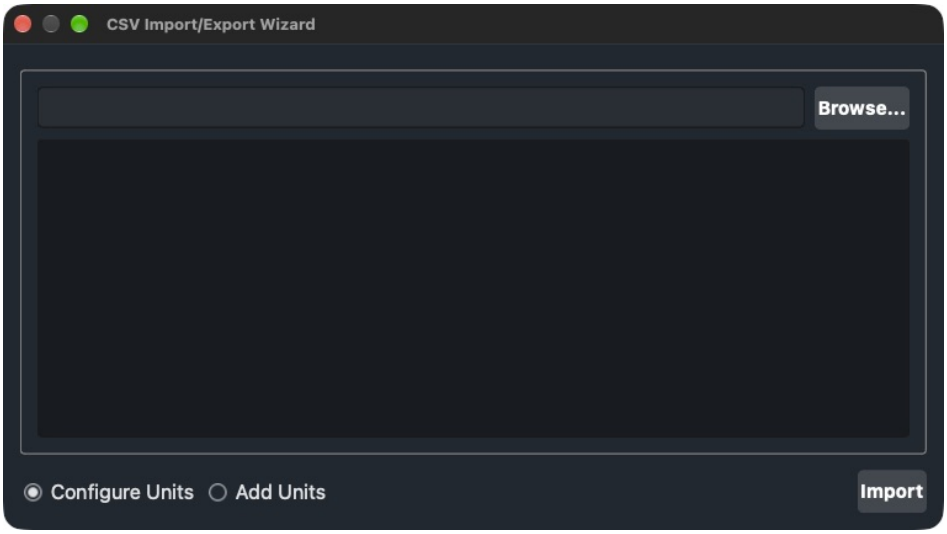


Figure 21. CSV Import/Export Wizard

1. Choose Configure Units to update supported fields for matched units, or Add Units to add supported records.
2. Click Browse and select the approved CSV file.
3. Review the results area before accepting any configuration changes.
4. Back up the database and confirm the target environment before completing an import.

12 Troubleshooting and warnings

Non-communicating unit outside the subnet

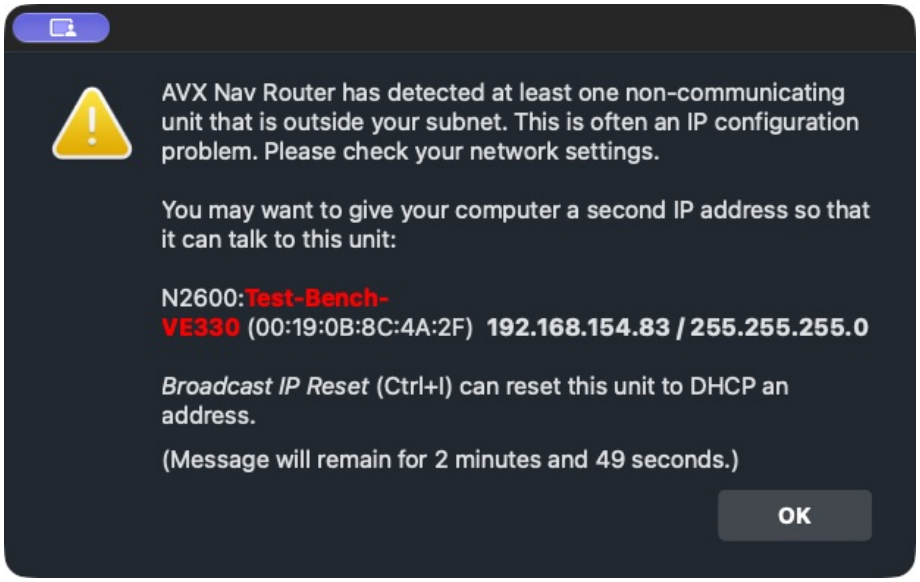


Figure 22. Non-communicating unit warning

1. Record the device model, MAC address, and reported IP information shown in the warning.
2. Confirm the computer network interface and subnet mask.
3. Check whether the device address belongs to a different subnet.
4. When approved, add a temporary secondary address or use Broadcast IP Reset if the command is enabled and appropriate for the device.
5. Rediscover the device and verify two-way communication before making configuration changes.

Enabled troubleshooting viewers

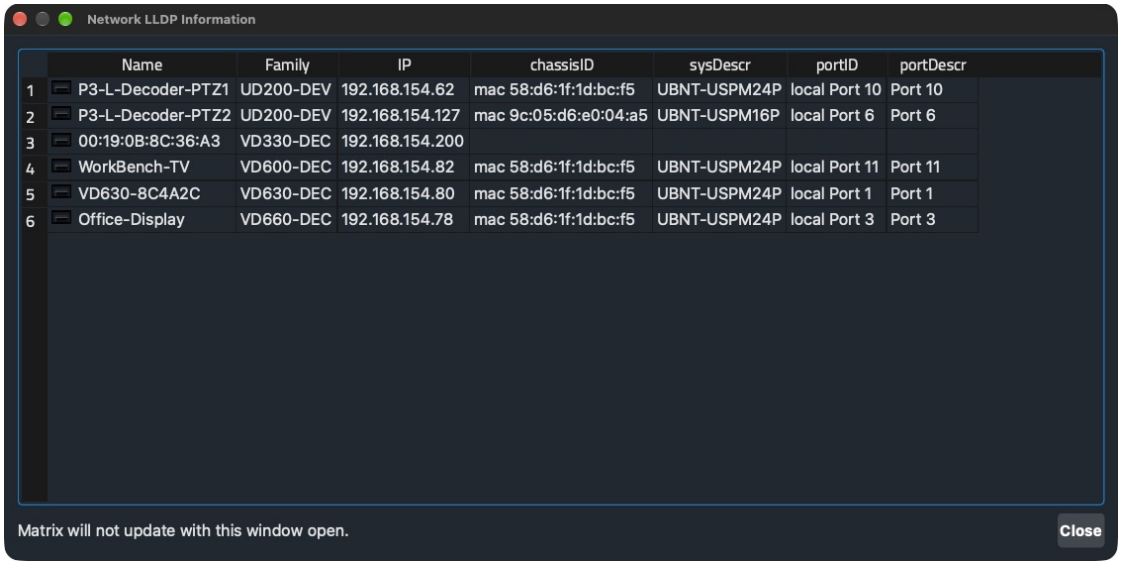


Figure 23. Network LLDP Information

Network LLDP Information pauses matrix updates while its window is open. Close the window after collecting the required switch and link details so normal polling can resume.

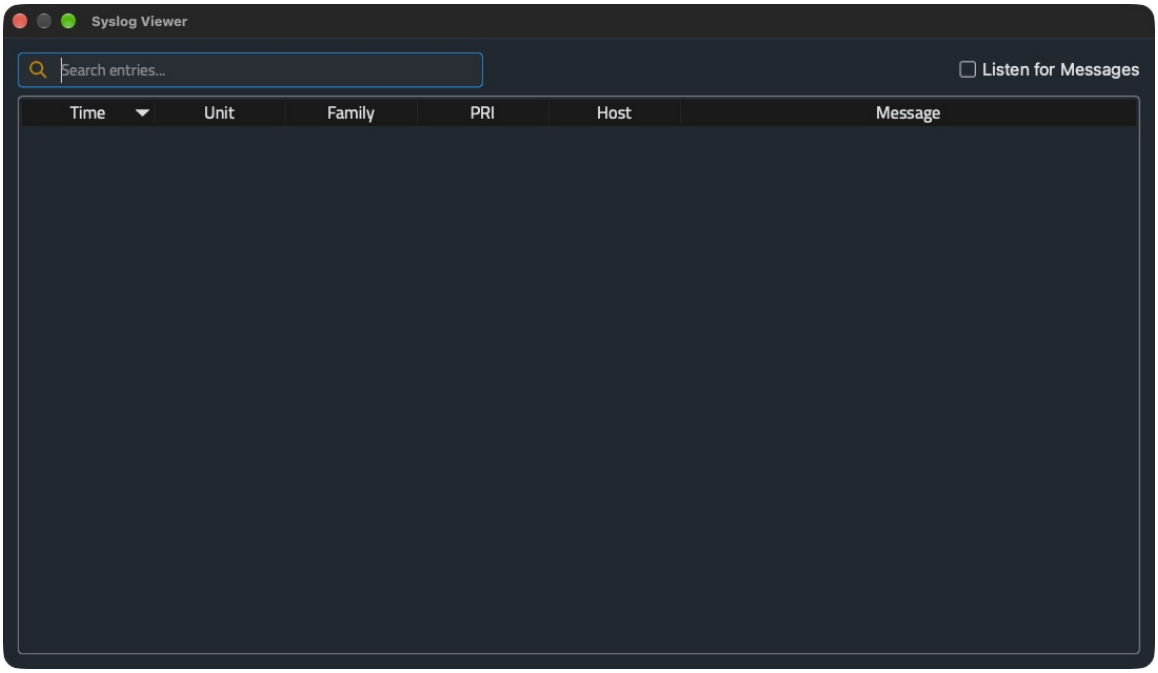


Figure 24. Syslog Viewer

Use Search entries to filter the list. Listen for Messages controls live collection; enabling it may add operational log data to the viewer.

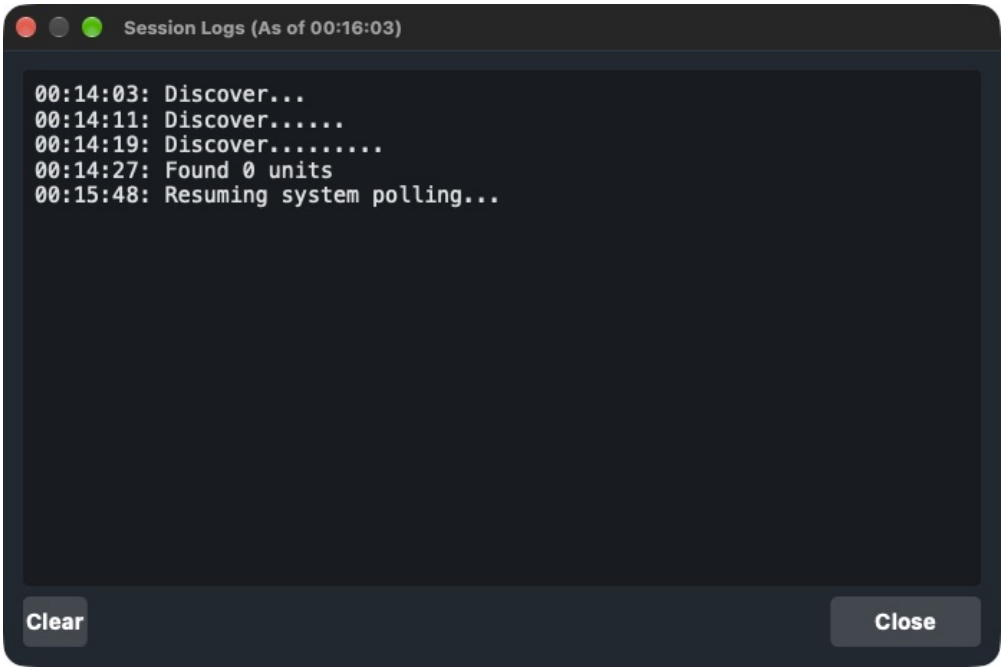


Figure 25. Session Logs

Session Logs records application events such as discovery progress and completion. Preserve relevant entries for support before using Clear.

Remove all units confirmation

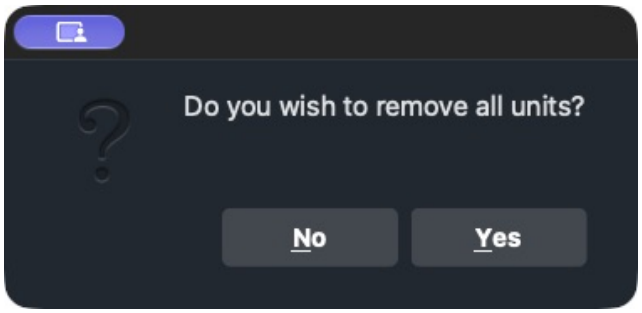


Figure 26. Remove all units confirmation

Safe response: Choose No when the action was opened for review or when any unit should remain in the local inventory. Choose Yes only after confirming that the entire list should be removed.

Common checks

Symptom	Checks
No units discovered	Network connection, bind source address, computer subnet, device power, discovery permissions, and firewall behavior.
Lost Communication	Device power, link state, switch path, IP reachability, subnet, and duplicate-address conditions.
Video route with no picture	Source presence, display detection, compatible format, EDID, stream state, and device communication.
Audio missing	Audio route, source audio, destination volume/mute, format compatibility, and endpoint state.
USB device unavailable	USB route, host enumeration, device power, endpoint compatibility, and active transfers.

13 Help and version information

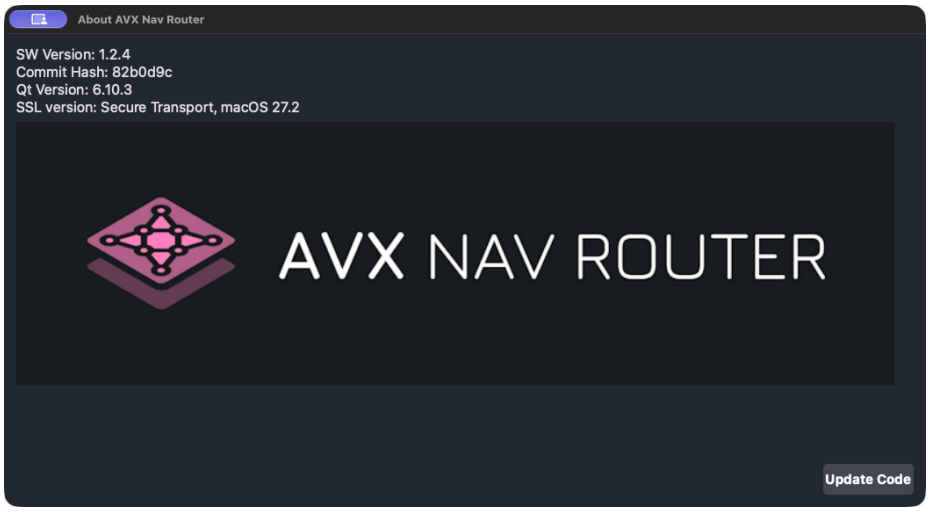


Figure 27. About AVX Nav Router

Use About AVX Nav Router to record the software version, commit hash, Qt version, and SSL implementation when opening a support case. The captured build reported software version 1.2.4 and commit 82b0d9c.

1. Open the AVX Nav Router application menu.
2. Choose About AVX Nav Router.
3. Record the displayed version and commit hash.
4. Describe the affected workflow, devices, and exact warning or error text.
5. Include relevant session logs, syslog data, and screenshots when allowed by the site security policy.

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