

Pathfinder Control Software V1.3

User Guide V1.00

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Welcome

Pathfinder control provides a system level interface for your KVM over IP. From this free application, you can easily manage and configure your Pathfinder system users, access levels, endpoint groups, workstation views like WindowView, Cross-Click, and multi head PCs, as well as routing and system wide preset scenarios. You must install Pathfinder control on a dedicated PC on your Pathfinder network.

Installing Pathfinder Control

Connect your hardware devices, and then install Pathfinder Control on a PC connected to the same network.

Download Pathfinder Control from tvONE.com/tech-support/software.

Pathfinder Control system requirements

- Windows 7 (32bit/64bit) or higher
- 1 GB RAM
- 50 MB free storage
- 1 Gbit dedicated network interface

Getting started

For best results, add small batches of devices at a time. Small batches make it easier to manage your network and troubleshoot any problems. Set up your network, add some devices, name those devices and update their firmware. Then add the next batch of devices.

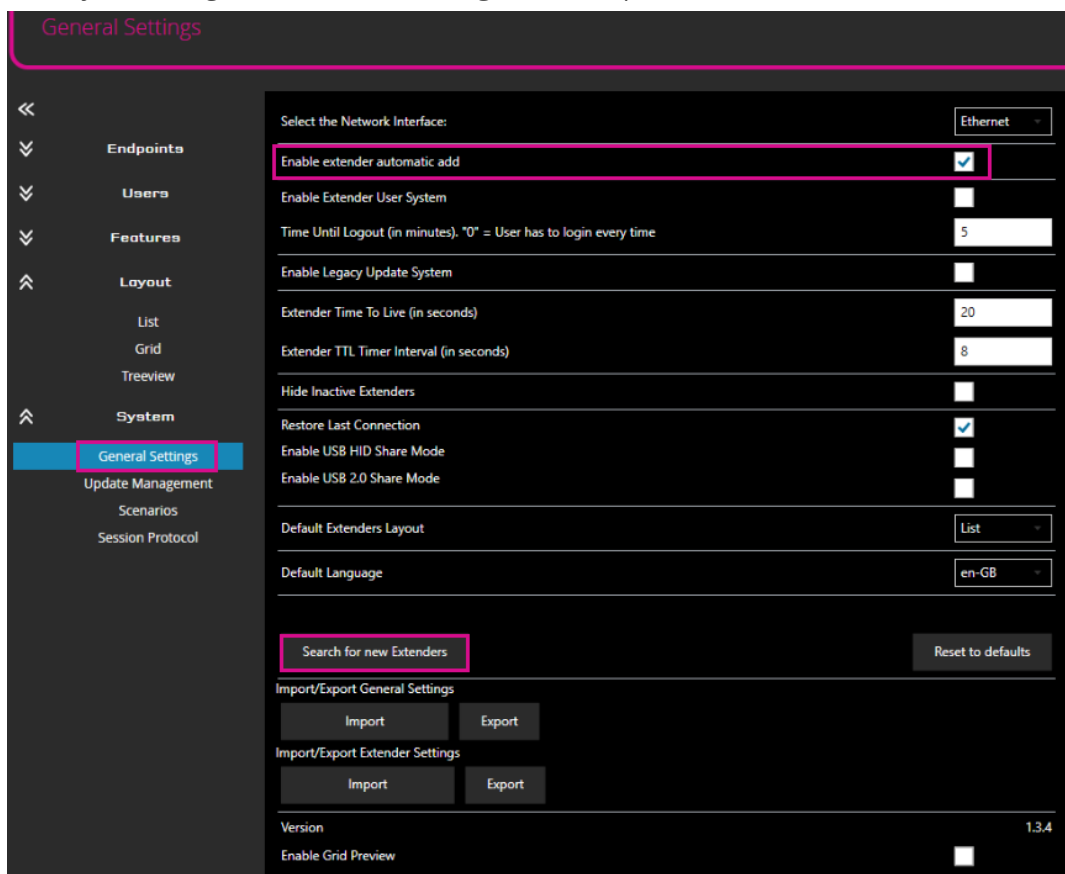
Logging in for the first time

Open Pathfinder Control and log in as an administrator. The default username is `admin`, and the default password is `admin`. You can change them later.

Read about changing passwords on page 10.

Setting up your network

When you first log in, the **General Settings** window opens.



1. Make sure **Enable extender automatic add** is selected. If it isn't, select it, then save. Pathfinder Control closes. Open it again.
2. Select **Search for new Extenders**.
3. OPTIONAL: If you want users to be able to use the on-screen display to connect to and disconnect from devices, or share their connection with other users, select **Enable Extender User System**. Users can only log in to devices they are bound to.
Read more about binding users to devices and devices groups on page 12.
4. OPTIONAL: If you want users to be logged out of an on-screen display after a set time, enter a time in minutes in **Time Until Logout**. If you want users to have to log in every time they open the on-screen display, enter a time of 0 minutes.
5. OPTIONAL: if you want your network to automatically log off inactive devices:
 - a. Choose how often your network checks for inactive devices. Enter the time in seconds in **Extender TTL Timer Interval**.
 - b. Choose how long the network waits to hear from the device. Enter the time in seconds in **Extender Time To Live**.
6. OPTIONAL: if you want devices that are not currently connected to the network to be hidden in **Layout > List**, select **Hide Inactive Extenders**.
7. OPTIONAL: if you want to restore the last connections made between encoders and decoders when the software starts, select **Restore Last Connection**.
Note: this setting also re-connects any devices that lost power or are powered off when power returns.
8. OPTIONAL: if you want users to be able to share control of their connection as well as their video signal, select **Enable USB HID Share Mode** or **Enable USB 2.0 Share Mode**.
9. OPTIONAL: you can choose the default layout view. Select your layout from **Default Extenders Layout**.

10. Select your language from **Default Language**.

Naming your devices

Naming your devices is important. The default names of devices in **Layout > List** or **Layout > Grid** are 500 series and 800 series. In **Extender Settings** the name is blank.

- ✓ If you lose track of which device is which when entering names, you can make the LED lights on the front of a specific device flash. Read more on page 5.

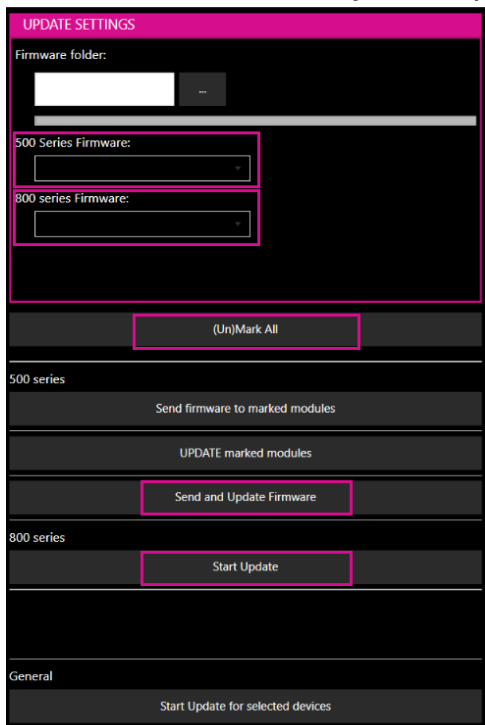
1. In Pathfinder Control, select **Endpoints > Extender Settings**.
2. Double-click each device and give it a useful name.
 - If your network is large, you might find it helpful to include a location in the name. For example, Floor2PC003.
 - You can give your devices long names but only the first 16 characters appear in the **Name** list in **Extender Settings**.

Updating your firmware

Find the current versions of your firmware in **System > Update Management**.

To update your firmware

1. Download the latest firmware from tvONE.com/tech-support/software.
2. In Pathfinder Control, select **System > Update Management**.



In UPDATE SETTINGS, select ●●● and navigate to the firmware file you downloaded in step 1.

The firmware .bmp file appears under **500 Series Firmware** or **800 Series Firmware**, depending on which firmware you are updating.

3. Select **(Un)Mark All** to select all the devices on your network.
4. Select **Send and Update Firmware** or **Start Update**, depending on which firmware you are updating. Your devices update. When the firmware update is complete, **Finished!** appears under **Alerts**.
 - If **Error! Try again!** appears, reboot the device or devices that did not update.
 - If that doesn't work, repeat the steps above.

Connecting, disconnecting, and sharing a connection

You can manage connections in **Layout > List** and **Layout > Grid**. To work with a subset of devices, choose devices in **Layout > List** and then work in **Layout > Grid**.

- If you have a lot of devices in your network, you can create groups of devices for easier management. If you work with groups you might find connecting, disconnecting, and sharing easier in **Layout > Treeview**.

✓ In Treeview you can choose to only look at a specific group of devices, for example, the devices in a single server room.

Read more about creating and managing groups of devices on page 1.

Choosing devices to work with in the grid layout

If your network contains many devices, you can choose to work with a subset of devices in the grid layout. Choose devices from **Layout > List** to appear in **Layout > Grid**.

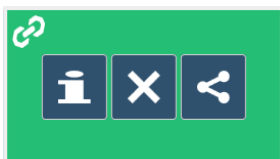
1. In Pathfinder Control, select **Layout > List**.
2. Choose devices to work with in the grid layout.
For the devices you want to appear in the grid, select the box for that device in the **GRID VIEW** column.

Connecting encoders and decoders

1. Select **Layout > Grid** or **Layout > List**.
2. From **Decoders**, select a decoder. When the decoder turns green, select an encoder from **Encoders**. When the two devices are connected, they both turn blue and show the name of the device they are connected to.

Disconnecting encoders and decoders

1. In Pathfinder Control, select **Layout > Grid** or **Layout > List**.
2. Select the encoder or decoder you want to disconnect. The device turns green and three buttons appear.



3. Select **X**.




Sharing a connection to another decoder

You can share the video signal of an active connection with a second decoder. If you want to share control of the connection as well, select **Enable USB HID Share Mode** or **Enable USB 2.0 Share Mode** in **General Settings**.

In Pathfinder Control, select **Layout > Grid** or **Layout > List**.

1. Select the encoder you want to share. The device turns green and three buttons appear.



2. Select .
3. Select a decoder to share with.
The sharing decoder turns blue and shows .
4. To end the shared session, select the decoder showing  and select **X**.

Managing devices

Viewing device settings

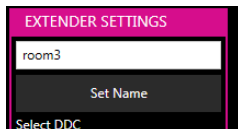
Device settings include Name, FW Version, Product, Device, Static Partner, Type, ID, DDC and Address.

- View device settings in **Endpoints > Extender Settings**.
- Double click a device to show more information and settings.

Managing device settings

To rename a device

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to rename.

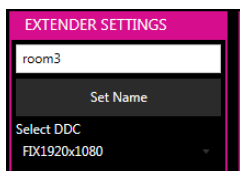


3. Enter a new name.
4. Select **Set Name**.

To use a specific DDC or EDID file

You can choose to use a DDC or EDID file.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to use a specific DCC or EDID file.

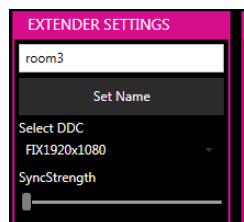


3. Select a file from **Select DDC**.
4. Select **Save Settings To Extender**.

To reduce video tearing with monitor synchronization

You can reduce the effects of video tearing with monitor synchronization. Start at the lightest setting. If that doesn't work, increase synchronization.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to change.



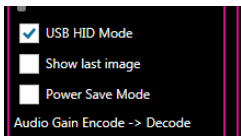
3. Slide **SyncStrength** to the right.
4. Select **Save Settings To Extender**.

To choose what to show on the decoder monitor when there is no connection

You can choose to show the last image received before disconnection when the encoder and decoder are disconnected. When you show the last image received, the image has a flashing red border.

1. Select **Endpoints > Extender Settings**.

2. Double-click the device you want to change.



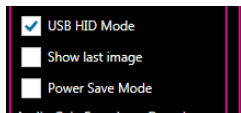
1. Select **Show last image**.
2. Select **Save Settings To Extender**.

To reduce power with power save mode

You can choose to enter power save mode if the decoder doesn't receive anything from the encoder for more than a minute.

If your decoder is set to show the last image received when it becomes disconnected, the monitor shows the last image for one minute, and then enters power save mode.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to change.

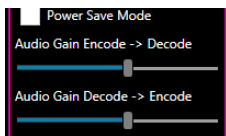


3. Select **Power Save Mode**.
4. Select **Save Settings To Extender**.

To set the audio volume

You can change the audio input and output.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to change.



3. To increase audio from the encoder to the decoder, slide **Audio Gain Encode -> Decode** to the right.
4. To increase audio from the decoder to the encoder, slide **Audio Gain Decode -> Encode** to the right.
5. Select **Save Settings To Extender**.

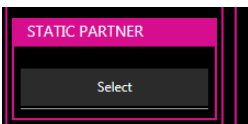
To permanently connect an encoder and decoder

You can choose to make a permanent connection called a static partnership. Static partners can't be disconnected and connect automatically to one another without Pathfinder Control present.

You can also permanently connect groups of devices to create extended desktops.

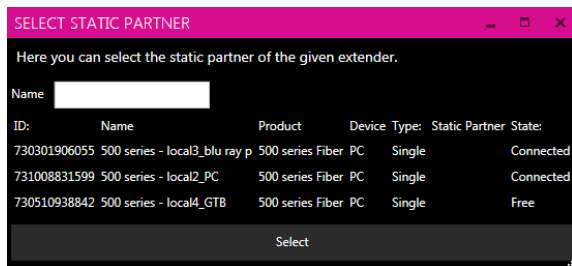
Read more about static partnerships between groups on page 14.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to connect.



3. Select **(STATIC PARTNER) Select**.

4. Select a device. If you can't see the device you want, enter the first few letters of its name to search.

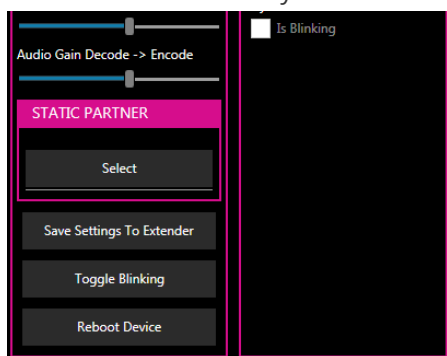


5. Select **Select**.

Finding a physical Pathfinder device

If you're not sure which physical device is which, you can make the LED light on the front of a specific device flash. The light flashes until you turn the setting off.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to find.

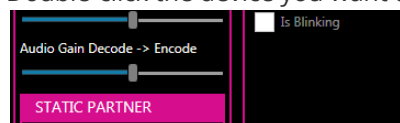


3. Select **Toggle Blinking**.
4. To stop the LED light flashing, select **Toggle Blinking** again.

Restarting a Pathfinder device

You can restart a device from Pathfinder Control.

1. Select **Endpoints > Extender Settings**.
2. Double-click the device you want to restart.

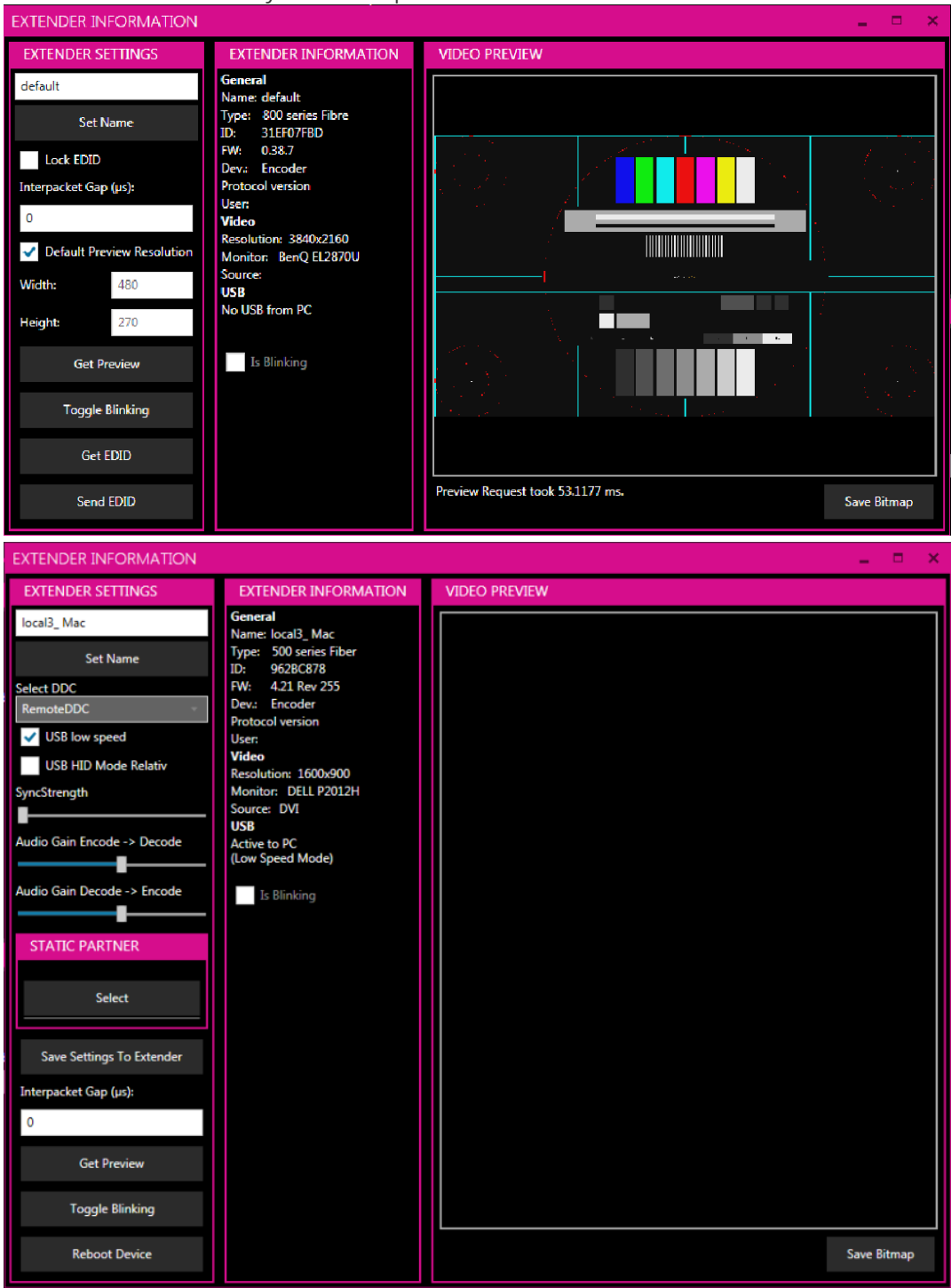


3. Select **Reboot Device**.
4. Select **Save Settings To Extender**.

Previewing an encoder as a video or still image

You can preview the video signal from an encoder as a series of still images. You can save an image as a bitmap.

- 1. Select Endpoints > Extender Settings.
- 2. Double-click the encoder you want to preview.



- 3. 800 series only: select Default Preview Resolution, or enter your chosen size for the preview window in pixels.
- 4. OPTIONAL: to reduce the load on your network, enter an interpacket gap time in microseconds. The interpacket gap time is the time before the still image refreshes. To refresh the still image at any time select Get Preview.
- 5. Select Get Preview.
- 6. To save a still image, select Save Bitmap.

Creating and editing groups of devices

To make large numbers of devices easier to manage, you can create groups of devices. Manage groups in **Endpoints > Extender Groups**.

<<

>>

Endpoints

Extender Settings

Extender Groups

Users

Features

Layout

List

Grid

Treeview

System

General Settings

Update Management

Scenarios

Session Protocol

Name	Member Count	Parent Extender Group
Floor1	4	
Floor2	3	
Floor1 Server1	3	Floor1

Expand All

Collapse All

Create New Extender Group

Edit Extender Group

Delete Extender Group

When you create groups and subgroups, your Pathfinder devices appear arranged in those groups in **Layout > Treeview**.

To create a group

1. In **Endpoints > Extender Groups**, select **Create New Extender Group**.
2. Enter a name for the group.
3. OPTIONAL: if the group is a sub group, select a parent group.
4. Select devices to include in the group.
5. Save.

To edit a group

1. In **Endpoints > Extender Groups**, select **Edit Extender Group**.
2. Edit group information.
3. Save.

To delete a group

1. In **Endpoints > Extender Groups**, select **Delete Extender Group**.

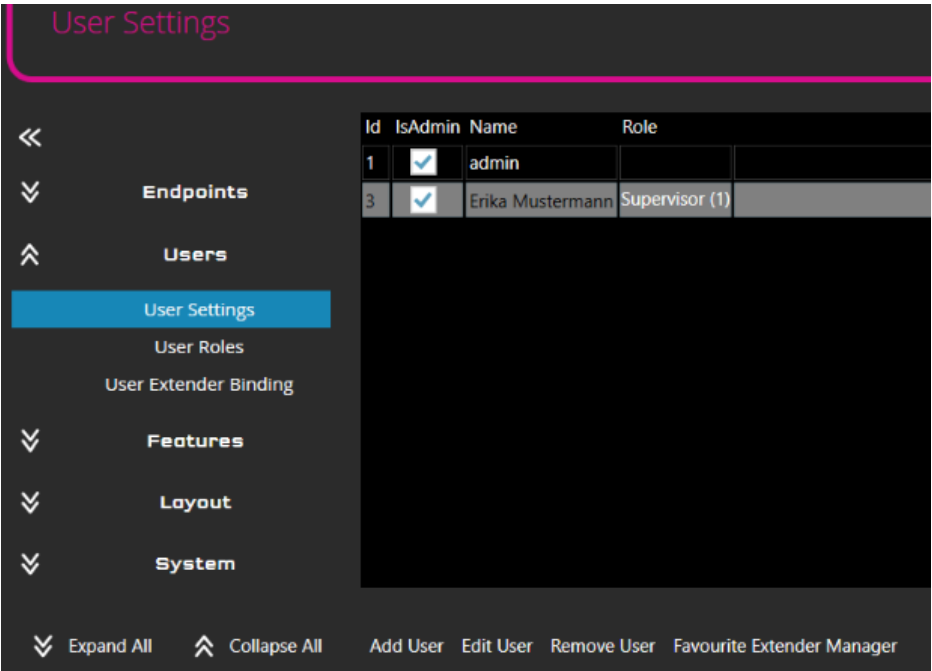
Managing users

Access levels: administrators and users

Pathfinder Control supports two levels of access, administrators and users. Users can only use Pathfinder Control to connect to and disconnect from devices, and to share their connections. Administrators can use Pathfinder Control to control every aspect of your Pathfinder Network.

Access levels are not the same as user roles, which you can choose to fit your organization. Read more about user roles on page 11.

User settings



To add a user

1. In Users > User Settings, select Add User.

The 'EDIT USER' dialog box contains the following fields and options:

- Name:** Erika Mustermann
- Password:** PasswordHere
- Confirm Password:** PasswordHere
- Give admin privilege:** ☒
- Role:** (Dropdown menu)
- Buttons:** Save User, Cancel

2. Enter a name and password for the user.
Passwords can only contain letters and numbers.
3. If you want the user to have the administrator access level, select **Give admin privilege**.
4. Select a role for the user.

To edit a user

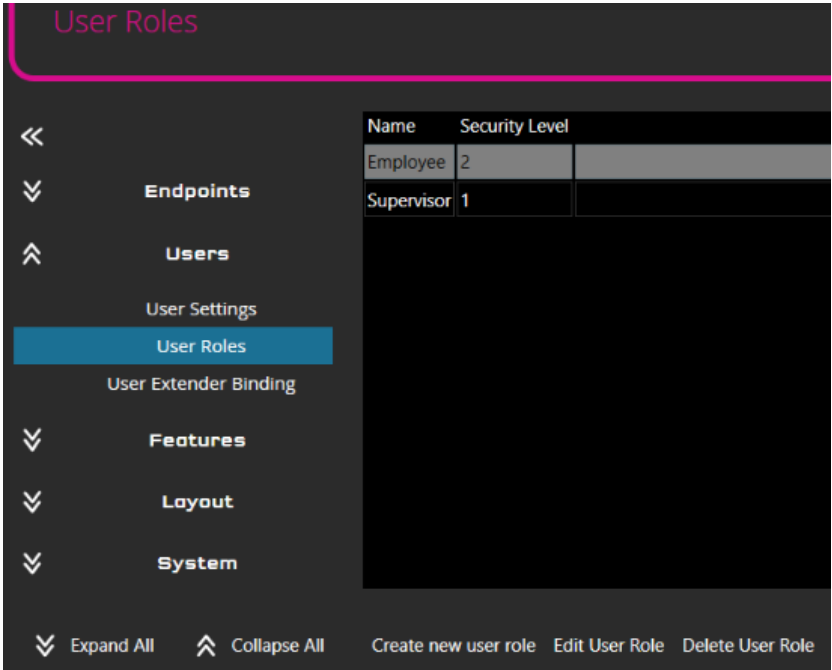
- To edit a user’s name, password, access level, or role, select Users > User Settings > Edit User.

To delete a user

- 1. In Users > User Settings, select a user from the list.
- 2. Select Delete User.

User roles

You can create custom user roles that fit with your organizational structure.



To add a user role

- 1. In Users > User Roles, select Create new user role.
- 2. Enter a name for the user role.

EDIT USER ROLE

Name

Supervisor

Security Level

1

Lower value means higher priority

Save User Role

Cancel

- 3. Enter a security level for the user role. Higher priority roles can override connections and shares made by lower priority roles. Level 1 is the highest priority.

To edit a user role

- To edit the name or security level of a user role, select Users > User Roles > Edit user role.

To delete a user role

- 1. In Users > User Roles, select a user from the list.
- 2. Select Delete User Role.

Binding users to devices and device groups

You can associate users with groups of devices or with one or more individual devices. Users can only log in to the on-screen display of devices they are bound to. If a user isn't bound to any devices, they cannot log in to any on-screen displays, and cannot create or change their connections, or share their connection with another user.

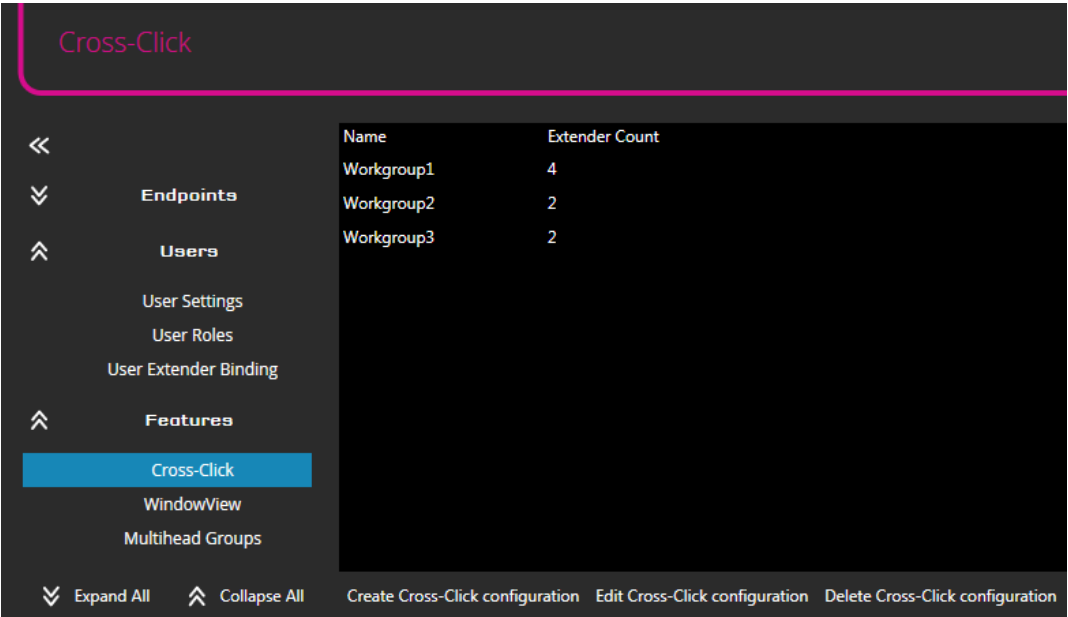
To create or edit bindings

- 1. In **Users > User Extender Binding**, select a user from the list.
- 2. Select **Bind Extender Groups** or **Bind Extenders**.
- 3. Select one or more groups or devices on the left and select ➔.

Managing features

Cross-Click

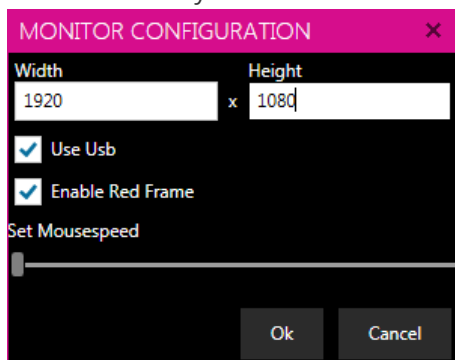
Control multiple local PCs with a single mouse and keyboard with Cross-Click. Each PC appears on a separate remote monitor.



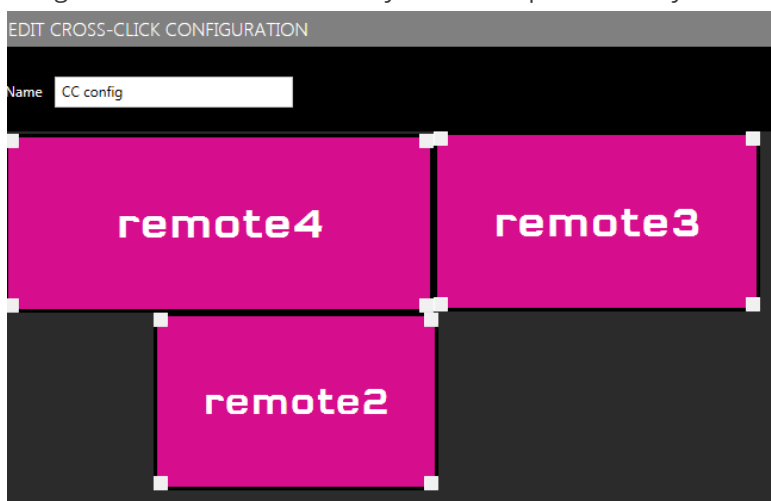
To create a new Cross-Click configuration

- 1. In **Features > Cross-Click**, select **Create Cross-Click configuration**.
- 2. Enter a name for the new configuration.
- 3. Select **Select Extenders**.
- 4. Select decoders on the left and select ➔.
The decoders appear as boxes which represent the size and position of your monitors.

5. Double-click each box and enter the size of your monitor in pixels.
For the decoder connected to your mouse and keyboard, select **Use Usb**. You must clear **Use Usb** on one decoder before you can select it on another.



6. Drag the boxes around until they match the positions of your monitors.



To edit a Cross-Click configuration

1. In **Features > Cross-Click**, select a configuration from the list.
2. select **Edit Cross-Click configuration**.
3. To add or delete decoders, select **Select Extenders**.

To delete a Cross-Click configuration

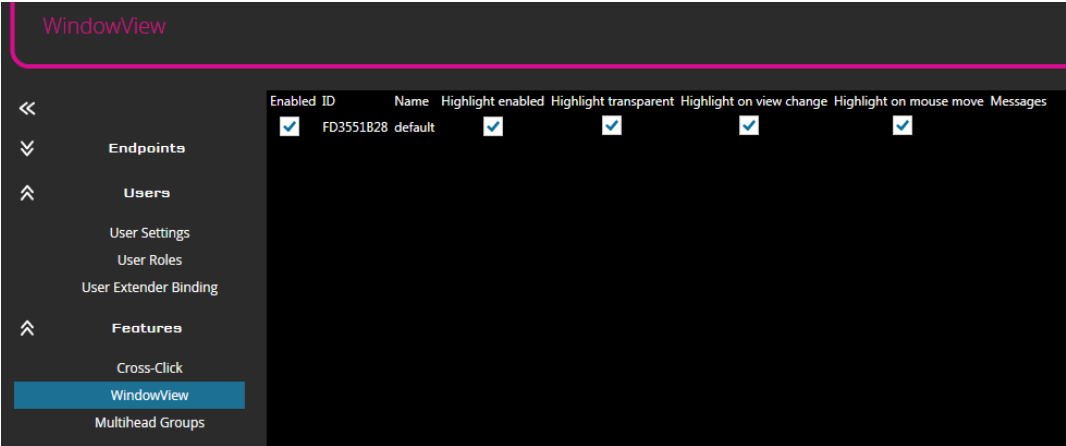
1. In **Features > Cross-Click**, select a configuration from the list.
2. select **Delete Cross-Click configuration**.

WindowView

If your network includes Pathfinder 500 series encoders and Pathfinder 800 series decoders, you can show and operate up to 4 PCs on a single 4K monitor. Enable WindowView and then connect up to four 500 series encoders.

To enable WindowView

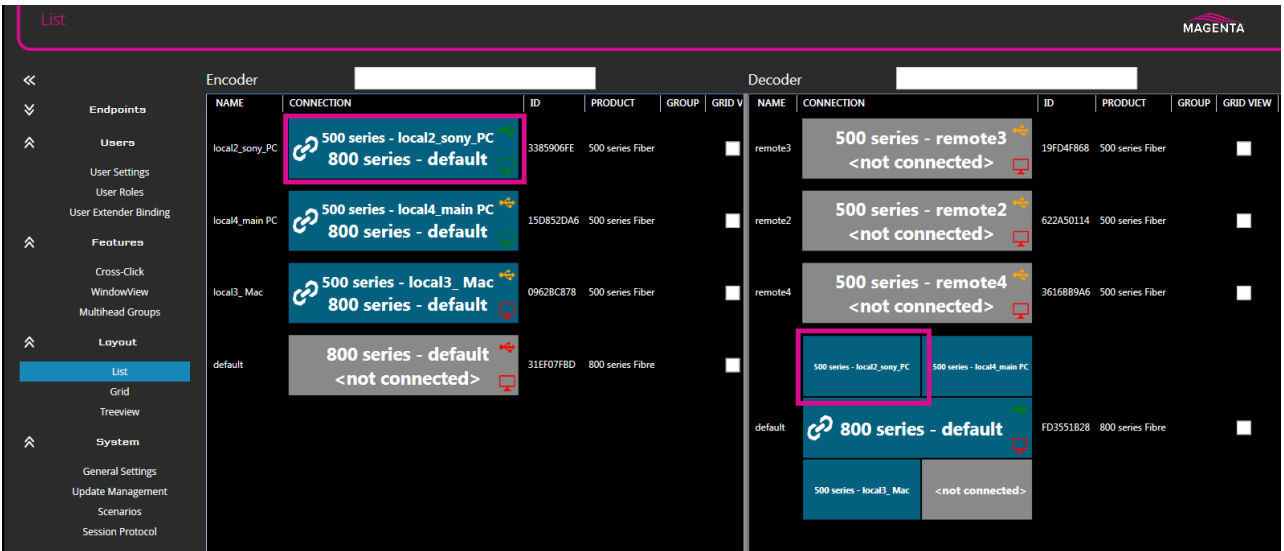
- Enable which Pathfinder 800 series decoders can use WindowView in **Features > WindowView**.



- To enable or disable borders, select **Highlight enabled**.
- To make the red border transparent, select **Highlight transparent**.
- To make the red border appear when you first move your mouse pointer onto the window, select **Highlight on view change**.
- To make the red border appear when you move your mouse pointer after a period of inactivity, select **Highlight on mouse move**.
- Create connections with your enabled decoders in **Layout > List** or **Grid** or **Treeview**.

To connect 500 series encoders to an enabled 800 series decoder

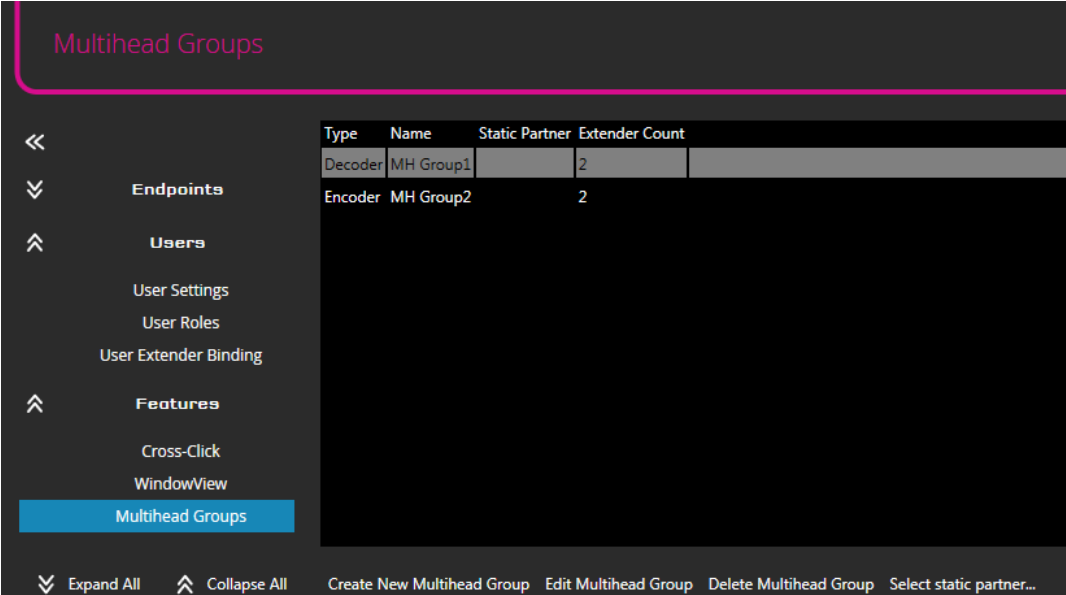
1. In **Layout > List** or **Grid**, select a 500 series encoder.
The encoder turns green.
2. Find the enabled decoder, and select the position you want.
The encoder and decoder turn blue.



3. Repeat for the other positions.

Extended desktop groups and static partners

You can create a group of encoders and a group of decoders, called multihead groups. You can permanently link the two groups together as static partners to create an extended desktop. Static partners are not available to make other connections and do not appear in in **Layout > List** or **Grid** or **Treeview**.



To create a group of encoders or decoders

1. In **Features > Multihead Groups**, select **Create new Multihead Group**.
2. Select **Encoder** from **Type**.
3. Enter a name for your group.
4. Select encoders on the left and select ➔.
5. Repeat these steps to create a group of decoders. In step 2 select **Decoder** from **Type**.

To edit a group

1. In **Features > Multihead Groups**, select a group from the list.
2. Select **Edit Multihead Group**.

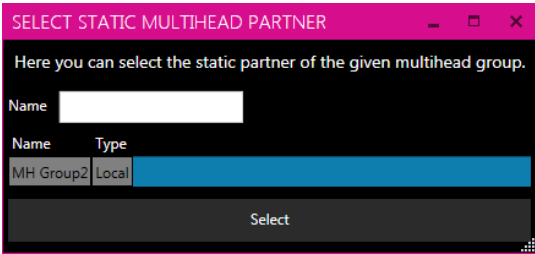
To delete a group

1. In **Features > Multihead Groups**, select a group from the list.
2. Select **Delete Multihead Group**.

To create a permanent connection

1. In **Features > Multihead Groups**, select a group from the list.
2. Select **Select static partner**.
3. Select a group from the list.

If there are many groups, you can enter the first few letters of a group name to search.



Managing scenarios

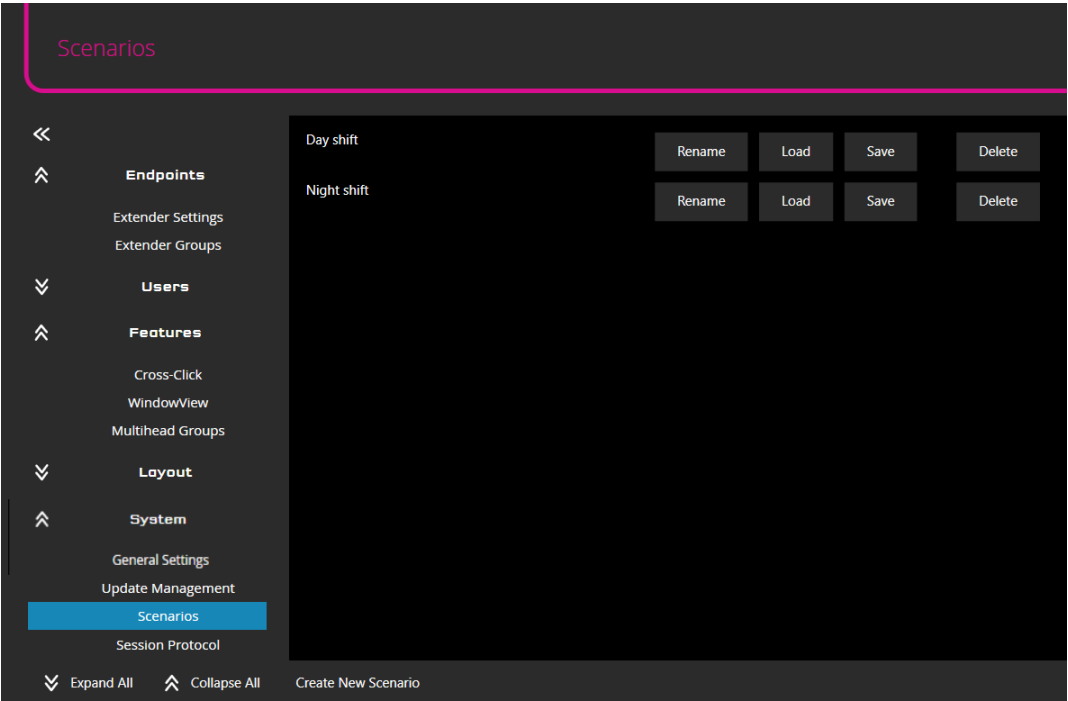
Risk of disrupting your network connections

- ⓘ When you load a scenario, you lose all your current connections. There is no way to undo loading a scenario. We recommend that only professionals use scenarios.

If you need to change all your connections regularly, for example, if you have a set of connections for day shift and a set of connections for night shift, you can create scenarios.

A scenario is a saved snapshot of all your current connections based on the MAC addresses of your devices. Static partnerships are not included in scenarios.

Create, load, and manage scenarios in **System > Scenarios**.



If you want to discard your current connections in favor of a saved scenario, select Load. If you want to overwrite a scenario with your current connections, select Save.

To create new scenario.

1. Select **Create New Scenario**.
2. Enter a name.

To discard your current connections and load a scenario

- Find the scenario you want to load in the list, and select **Load**.

logging user activity

If you selected **Enable Extender User System** in **System > General Settings**, you can log the connections of users when they use the OSD of their decoder.

View and export the log in **System > Session Protocol**.

Backup and restore

Saving general settings

You can save your general settings to an .xml file for backup.

- In Pathfinder Control > **General Settings**, select **(Import/Export General Settings) Export**.

Using saved general settings to set up a new network

You can share general settings between Pathfinder networks (does this depend on firmware versions etc?).

1. In the network that is already set up, export general settings.

In Pathfinder Control > **General Settings**, select **(Import/Export General Settings) Export**.

2. Save the exported file and transfer the file to the PC running Pathfinder Control on the new network.

3. In Pathfinder Control > **General Settings**, select **(Import/Export General Settings) Import**.

Saving device settings

You can save your device settings to a zipped file for backup. The zipped file includes information about:

- Device groups
- Cross-Click configurations
- Extended desktops
- User roles
- Session information

To save device settings

- In Pathfinder Control > **General Settings**, select **(Import/Export Extender Settings) Export**.

Contact us

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Support Asia: tech.asia@tvone.com

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