

Savi | DEALER GUIDE

DSP.ONE

www.hellosavi.com

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1. GENERAL DESCRIPTION

The SAVI DSP.One is a Digital Signal Processor that requires no licensing or additional software. Features a physical 16 x 16 I/O and SAVI Link, a standards-based audio over IP system, for a possible 16 x 32 configuration.

1.1. RELEASE NOTES

Data Sheet Version	Date	Revised	Description
1.0	2023-06-23	TN	First release for SAVI DSP.One

2. GETTING STARTED

This User Guide details SAVI's new DSP.One. This Digital Signal Processor provides matrix switching of up to 16 physical inputs and outputs. Additionally, SAVI Link provides access to any digital SAVI audio stream as an input and for digitizing any output for integration into a SAVI project. For questions not answered here, be sure to contact SAVI Support!

2.1. REQUIREMENTS

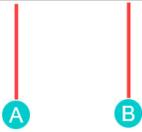
SAVI's DSP.One is fully integrated into the overall SAVI architecture but is extremely capable in a configuration without a SAVI Server Pro. As such, the only hardware needed for this setup is the DSP.One, speakers, and one or more sources.

Additionally, while the DSP.One does not require internet access, it does require connection to a local network for access to the User Interface. It also requires any device with access to a modern internet browser, such as a tablet, laptop, or desktop. The DSP UI is not designed to be used on a small screen device, such as a phone.

Warning: The DSP.One must be connected to a network when powered on to complete the startup process!

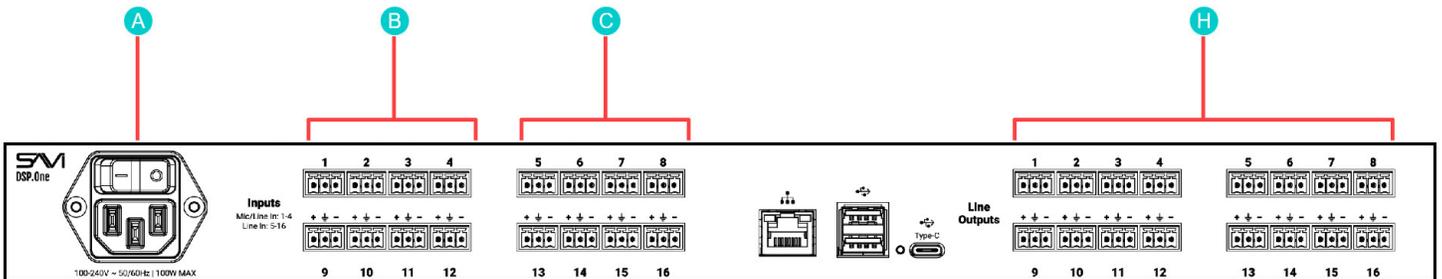
Lastly, the DSP.One is designed to focus completely on matrix switching and mixing. Therefore, it does not have any amplified outputs and will require either powered speakers or a separate amplifier (such as SAVI's AMP.One). All 16 outputs provide fully balanced line level audio.

2.2. PHYSICAL LAYOUT



A. LED Screen

B. D-Pad



A. Main Power Input and Switch

B. 4 x Microphone/Line Input (Euroblock, 3.55mm)

C. 12 x Line Input (Euroblock, 3.55mm)

D. Network (Ethernet, 1Gb/s)

E. 2 x USB 2.1 Type A

F. Factory Reset

G. USB Type C

H. 16 x Line Output (Euroblock, 3.55mm)

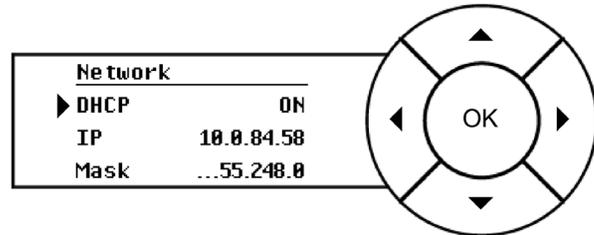
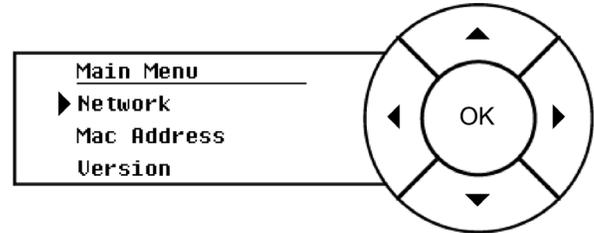
2.3. FRONT PANEL & D-PAD

The front panel LED screen and D-pad allow access to some basic functionality for the device.

Select **OK** on the D-pad to open the Main Menu. Use the **Up** and **Down** arrows to navigate, the **Left** button to go back, and the **OK** button to select.

Main Menu Properties

- **Network:** Allows changing network settings
 - **DHCP:** Toggles DHCP On/Off
 - **IP:** Set static IP address
 - **Mask:** Set static subnet mask
 - **Gate:** Set static gateway
 - **DNS1:** Set static DNS
 - **DNS2:** Set alternate static DNS
- **Mac Address:** Displays the device MAC address
- **Version:** Displays the device software versions
 - **App:** Main UI software
 - **Front Panel:** LED front panel software
- **Reboot Device:** Restarts the device
- **Factory Reset:** Erases all custom configurations

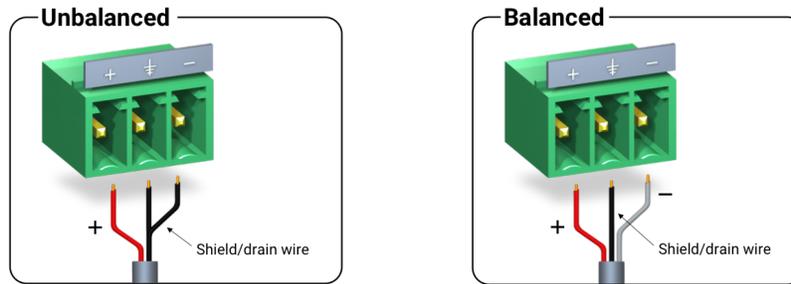


2.4. CONNECTOR WIRING

Line Inputs/Outputs

The euroblock connector wiring changes depending on the type of connection. Be sure to follow this wiring guide for maximum sound quality.

Line input and output connections can be either Balanced or Unbalanced.



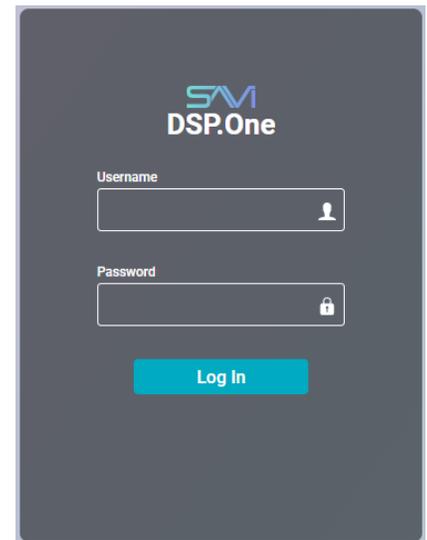
2.5. INITIAL LOGIN

The entirety of the DSP.One UI is accessible through any modern browser by navigating to the correct IP address and entering a valid Username and Password. The DSP.One Address is set to DHCP by default but may be assigned a static IP address once you login.

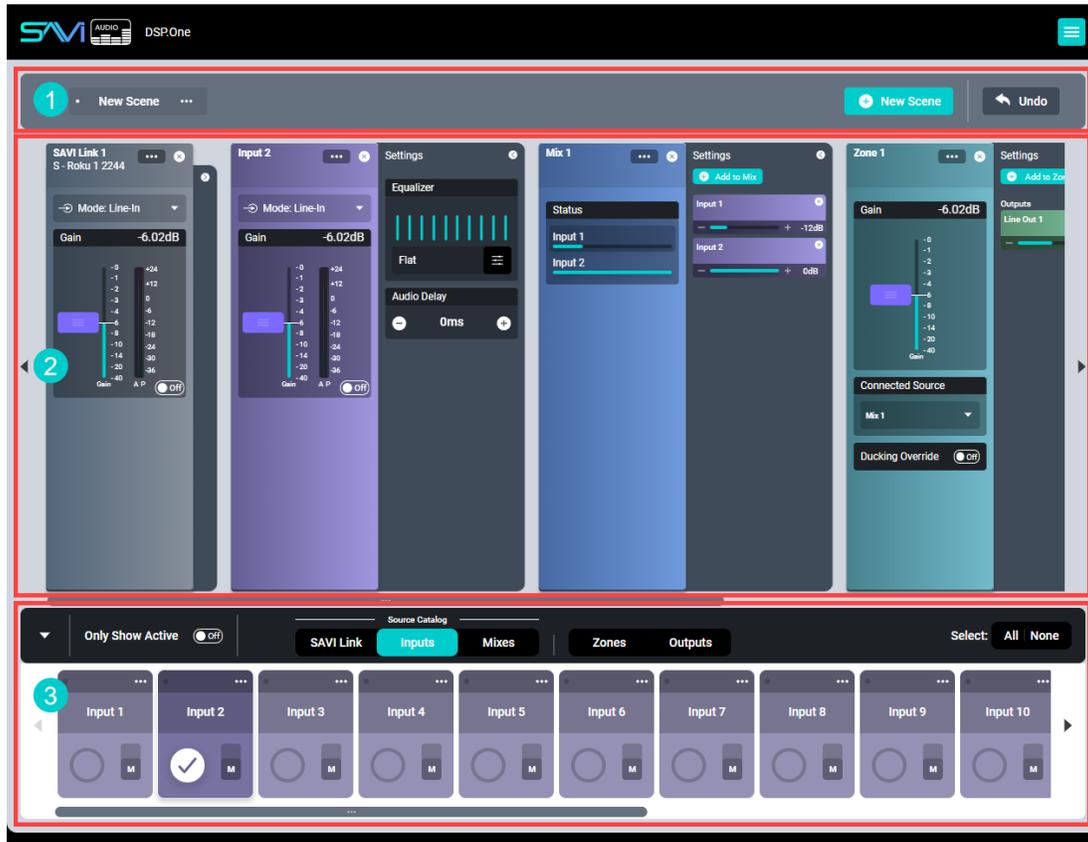
The current IP address can be found on the front panel display.

On first login, you will be greeted with the login window (right). The default login credentials are:

Username: admin
Password: admin



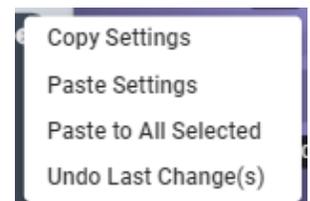
3. INTERFACE



The DSP.One interface is divided into three main areas:

- 1. Scene Toolbar:** (on the top) This contains all saved **Scenes**, the **New Scene** icon, and the **Undo** button.
- 2. Configuration Zone:** (in the middle) This is where all **Config Cards** appear when selecting an **I/O Card** from the **Carousel**.
- 3. Carousel:** (on the bottom) Here is where you will find all **I/O Cards** for the selected type, as well as the **Type Catalog**. The **Carousel** is collapsed by default and can be opened or closed by clicking the arrow on the left side.

In the **Configuration Zone**, each **Config Card** has access to the same ellipsis menu. Here you can copy all settings from one **Config Card** to paste to another individually or to all actively selected cards. There is also an option to undo the last single settings change, though that may affect multiple configuration settings. Undo may be used multiple times to undo a number of changes.



4. THE CAROUSEL AND TYPE SELECTOR



The **Carousel** is the starting point for any project. Start on the left side of the **Type Selector** and work your way through the audio flow. Or Start at the end and work your way back.

The Inputs option is selected by default, but you can select any of the available options to change the **Carousel** to that type.

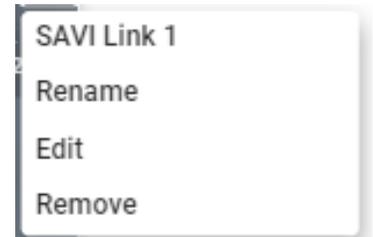
Each **I/O Card** selected in the Carousel will reveal the corresponding **Config Card** in the **Configuration Zone** above. Additionally, selecting one of the **Type Catalog** options will show those I/O Cards in the Carousel.

4.1. I/O CARDS

Each of the I/O Cards have an ellipsis menu located in the top right of the card. This menu will always include the current name of the card and a rename option. Additional properties may be available depending on the type of I/O Card.

I/O Card Properties:

- **Ellipsis Menu:** Located in the top right of every I/O Card. Selecting this will toggle the menu items below.
- **Name:** Displays the name of the I/O and Config Card. Selecting this will toggle selection of the I/O Card.
- **Rename:** Changes the name on both the I/O Card and the Config Card. Card identifier will remain as well (i.e., Input 1, Mix 1, etc.).
- **Edit:** Opens the stream data modal to edit the SDP/URI string. (Only available on SAVI Link)
- **Remove:** Deletes the I/O Card and connection to the item. (Only available on SAVI Link and Mixes)
- **M:** Mutes the individual physical input or output. (Only available on Inputs and Physical Outputs)



4.2. CAROUSEL

Besides the Type Selector, there are a few quality-of-life options in the Carousel. Similar to Facility View, the selector on the right side will select all or deselect all of the currently available I/O Cards. This selector is not currently customizable.



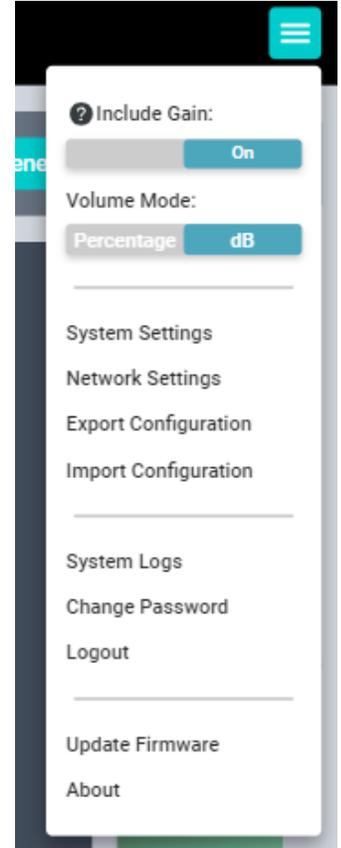
Carousel Properties:

1. **Collapse/Expand:** Click the arrow to collapse or expand the I/O Card section of the Carousel.
2. **Only Show Active:** Enabling this will only display I/O Cards and Config cards that have been connected to other cards. All others will be hidden.
3. **Type Selector:** This selector changes what cards are shown in the Carousel. Selecting Outputs reveals the selector to specify Physical or Network outs.
4. **Select ALL | NONE:** Toggles selecting or deselecting all I/O Cards to display their Config Cards.

5. MAIN MENU

The **Main Menu** icon is located in the top right of the UI. Selecting it will open the full menu, though you may need to scroll depending on your screen size.

- **Include Gain:** Enabling this allows gain control to be included when switching scenes and when copying settings between cards.
 - **Volume Mode:** Toggles volume display between Percentage and dB (decibels).
-
- **System Settings:** Allows configuration of Device Name, Log Level, and Stream settings.
 - **Network Settings:** Allows configuration of DHCP or Static network settings.
 - **Export Configuration:** Downloads all settings as a .json file.
 - **Import Configuration:** Uploads and applies settings from a .json file.
-
- **System Logs:** Launches a modal that allows viewing logs.
 - **Change Password:** Launches a modal to change the password of one or more users. Select the user from a drop-down.
 - **Logout:** Locks the UI and requires entering a username and password to access again.
-
- **Update Firmware:** Allows uploading a firmware update file.
 - **About:** Displays firmware version and SAVI Copyright information.



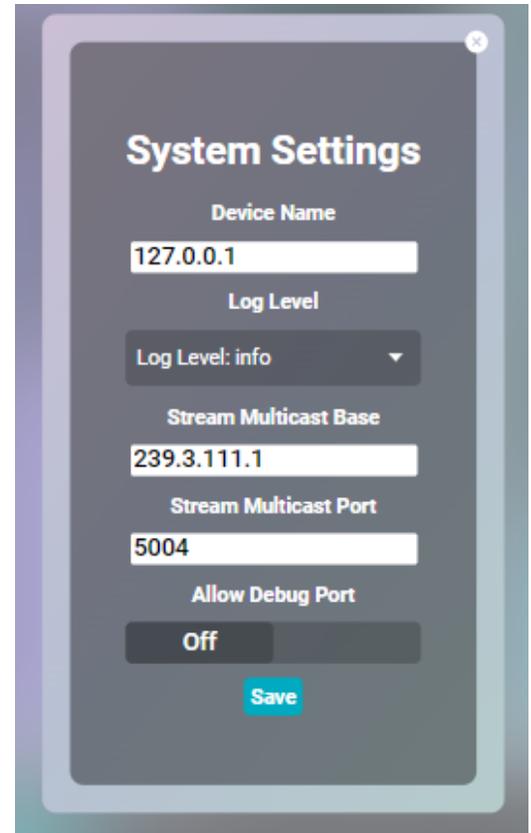
5.1. SYSTEM SETTINGS

Select **System Settings** from the main menu to open.

This modal provides configuration fields for the device name and multicast stream settings. Log level settings and the debug port toggle are also available here.

System Settings Properties:

- **Device Name:** Sets the name of the device. (Only allows letters, numbers, hyphens, and periods)
- **Log Level:** Select one of the drop-downs to determine log types.
 - **trace:** Extremely detailed information on each step of the code.
 - **debug:** Relatively detailed tracing used by application developers.
 - **info:** Informational messages that might make sense to end users and system administrators, and highlight the progress of the application.
 - **warn:** Potentially harmful situations of interest to end users or system managers that indicate potential problems.
 - **error:** Error events of considerable importance that will prevent normal program execution, but might still allow the application to continue running.
 - **fatal:** Any error that is forcing a shutdown of key services to prevent data loss (or further data loss).
 - **silent:** Disables logging. (Not recommended)
- **Stream Multicast Base:** IP address for the output multicast stream.
- **Stream Multicast Port:** Port for the output multicast stream. Set to 5004 as default.
- **Allow Debug Port:** Enables the debug port on the main internal DSP board. (Disabled by default)



5.2. NETWORK SETTINGS

Open the menu and select **Network Settings**.

This modal allows toggling DHCP and making adjustments to the standard network fields. The device MAC address is also shown here.

Network Settings Properties:

- **DHCP:** Toggles between static and DHCP. Setting to DHCP will grey out all fields though text will be preserved.
- **IP Address:** The network address of the device in IPv4.
- **Subnet Mask:** The subnet mask of the device.
- **Gateway IP:** The network address of the router.
- **DNS 1:** The network address of the Domain Name Server.
- **DNS 2:** Backup DNS address. (optional)
- **DNS 3:** Backup DNS address. (optional)
- **MAC Address:** Lists the device's physical network address.

When disabling DHCP or making adjustments to the IP address, the device will reboot to complete setup. Please allow up to 30 seconds for the DSP.One to come back online. The new IP address will be displayed on the front panel of the device after the startup process is complete.

Be aware that even when DHCP is disabled and a static is used, the DHCP address remains active as a secondary IP address.

The screenshot shows a 'Network Settings' modal window. At the top, there is a title 'Network Settings' and a close button. Below the title is a 'DHCP:' toggle switch, which is currently turned off. Underneath are several input fields: 'IP Address' with the value '10.0.84.58', 'Subnet Mask' with '255.255.248.0', 'Gateway IP' with '10.0.80.1', 'DNS 1' with '10.0.0.2', 'DNS 2' with '10.0.0.2', and 'DNS 3' which is empty. At the bottom, there is a 'MAC Address' field showing 'D0:54:75:05:01:60' and a blue 'Save' button.

5.3. SYSTEM LOGS

Open the menu and select **System Logs**.

This modal displays logs configured in the System Settings. The drop-down menu allows selecting logs for different sections of the device. The refresh icon to the right of the drop-down updates the log output to include the current status.

System Logs Properties:

1. Drop-down: Located in the top right of the System Logs modal. Select to see the following options.

- **All:** Displays all log sections.
- **Actions & Front Panel:** Only displays logs for actions taken in the UI or in the front panel.
- **Actions:** Only displays logs for actions taken in the UI.
- **Front Panel:** Only displays logs for actions taken in the front panel.

2. Refresh: Located to the right of the Drop-down. Fetches updated logs.

3. Slider: Located beneath the Drop-down.

- **1-Line:** Displays log entries on one line each. (Selected by default)
- **Pretty:** Displays log entries in an easier to read format with line breaks after each error.

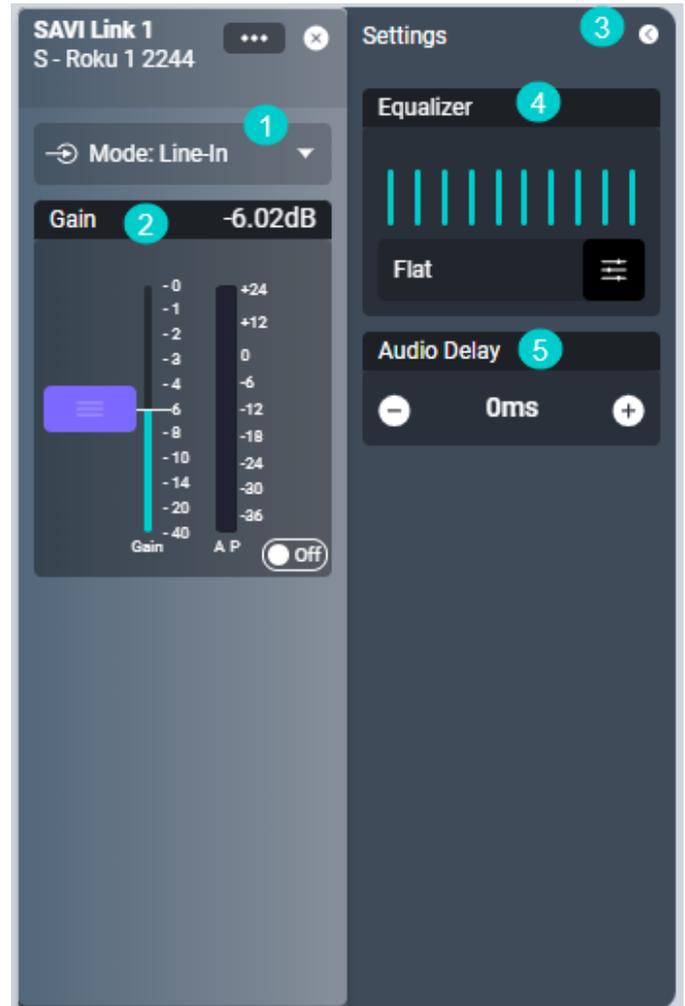
```
-- Logs begin at Fri 2023-05-05 16:40:03 UTC, end at Wed 2023-05-10 13:42:51 UTC. --
May 05 16:40:06 Example-DSP systemd[1]: Started SAVI Network Metal Service.
May 05 16:40:06 Example-DSP systemd[1]: Started SAVI DSP app service.
May 05 16:40:06 Example-DSP run-net-daemon.sh[387]: reset gpio mounted gpio
May 05 16:40:06 Example-DSP run-net-daemon.sh[387]: release GPIO for openocd use
May 05 16:40:06 Example-DSP run-net-daemon.sh[387]: D21 reset success!!!!
May 05 16:40:06 Example-DSP run-net-daemon.sh[387]: host name already exists
May 05 16:40:09 Example-DSP run-net-daemon.sh[387]: Loading routes...
May 05 16:40:09 Example-DSP run-net-daemon.sh[387]: Starting server...
May 05 16:40:09 Example-DSP run-net-daemon.sh[387]: Listening on port 8989
May 05 16:40:09 Example-DSP run-net-daemon.sh[387]: Ready!
May 05 16:40:11 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304811837,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:12 Example-DSP run-net-daemon.sh[387]: {"level":30,"time":1683304812085,"pid":398,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813198,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813292,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813300,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813335,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813520,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: {"level":30,"time":1683304813521,"pid":397,"hostname":"Example-DSP"}
May 05 16:40:13 Example-DSP run-ui.sh[391]: Open On-Chip Debugger 0.11.0+dev-00571-g254883597-dirty (2022-08-11)
May 05 16:40:13 Example-DSP run-ui.sh[391]: Licensed under GNU GPL v2
May 05 16:40:13 Example-DSP run-ui.sh[391]: For bug reports, read
May 05 16:40:13 Example-DSP run-ui.sh[391]: http://openocd.org/doc/doxygen/bugs.html
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : Linux GPIO/JTAG/SWD bitbang driver
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : This adapter doesn't support configurable speed
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : SWD DPIDR 0x0bc11477
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : at91samd21g18.cpu: Cortex-M0+ r0p1 processor detected
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : at91samd21g18.cpu: target has 4 breakpoints, 2 watchpoints
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : at91samd21g18.cpu: external reset detected
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : starting gdb server for at91samd21g18.cpu on 3333
May 05 16:40:13 Example-DSP run-ui.sh[391]: Info : listening on port 3333 for gdb connections
```

6. SAVI LINK

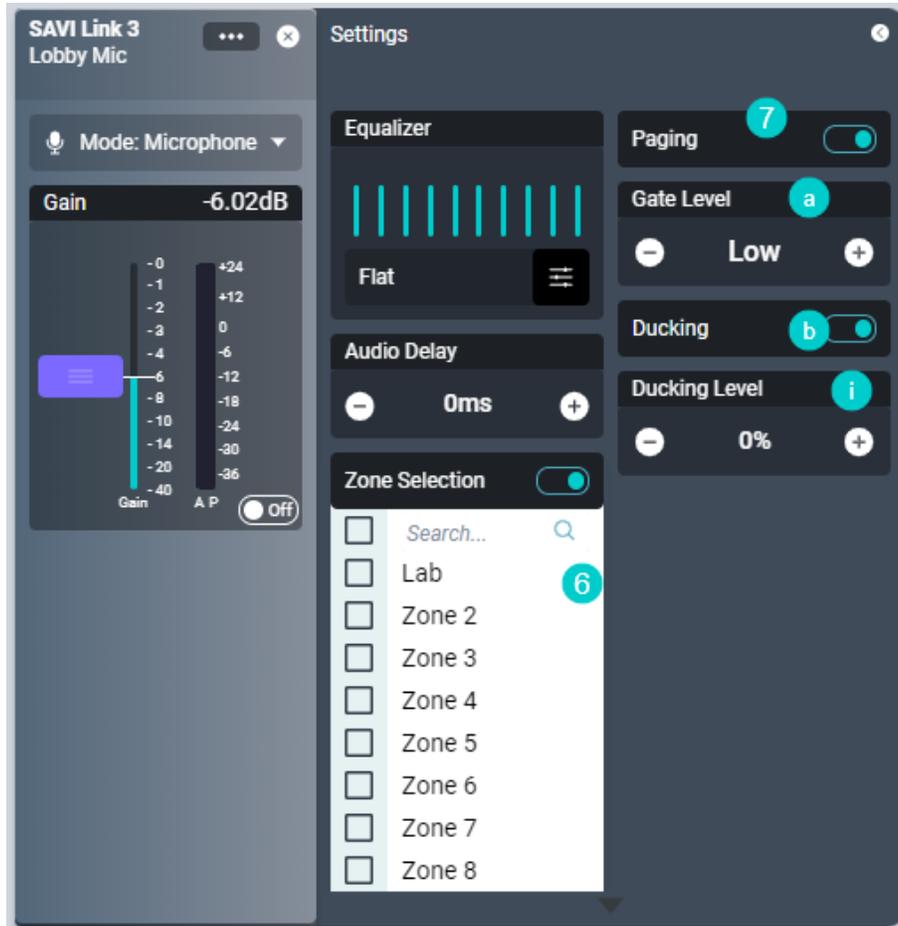
SAVI Link inputs are where you connect audio sources that are already broadcast on the SAVI Canvas network. These include **STREAM.One** and **DSP.One** devices.

SAVI Link Properties:

1. **Mode:** This specifies the input connection type.
 - **Line-In:** Set as a standard 2-pin audio input.
 - **Microphone:** Set as a mic with appropriate options.
2. **Gain:** This sets the input gain level for tone control.
 - a. **Peak Hold:** Toggle this on to place a red mark on the highest Average and Peak meters. Resets when toggled off.
3. **Expand/Collapse:** The arrow on the side of the card opens to reveal the settings pane.
4. **Equalizer:** Shows the current EQ bands in a visual graph and the name of the currently selected EQ preset. May be set to one of six presets or customized by clicking **Button** to the right of the name.
 - **Modify:** Selecting the button displays the EQ Settings modal. Allows access to ten individual frequency sliders and creating or editing preset EQs.
5. **Audio Delay:** Allows the audio to play on a delay (range=0 to disable, up to 7,200ms or 7.2 sec).



Please see section 10 for EQ settings



Microphone Properties:

Changing the Mode to Microphone will enable additional options.

- 6. Zone Selection:** Directs individual Inputs to specific Outputs or Mixes, depending on device mode.
- 7. Paging:** Enabling this allows the input to become active upon detecting audio input surpassing the Gate Level.
 - a. Gate Level:** Select from Low, Med, or High to determine when paging audio is detected.
 - Low:
 - Med:
 - High:
 - b. Ducking:** Enables ducking on this input and enables the Ducking Level option. Set to Off by default.
 - i. Ducking Level:** Sets how much other audio input gains are reduced when the paging mic is detected. (100%=gain not reduced, 0%=gain muted)

Reminder: Only 16 total Inputs can be active across both SAVI Link and Inputs (Line In)

6.1. ADDING A NEW LINK INPUT

1. Start by clicking the **Add New SAVI Link Input** icon in the Carousel to launch the modal.

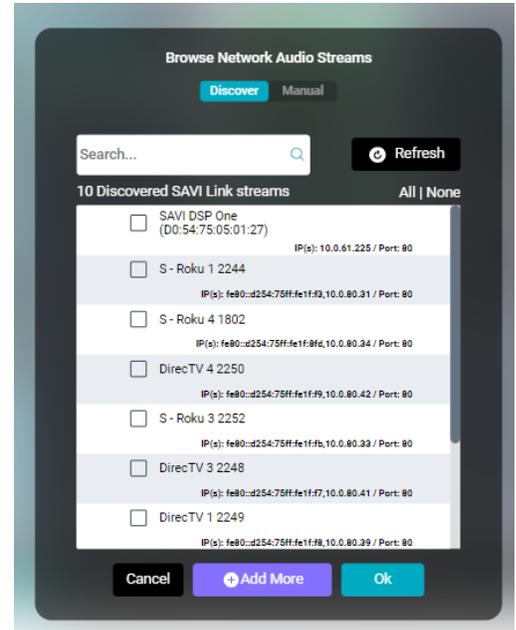


2. The modal will search the network for broadcasting SAVI Link streams and display them here.

- Compatible devices include: DSP.One and STREAM.One

3. Select one or more discovered links (You can use the **All | None** selector to quickly select all of them) and press **OK** to add them.

- The order that devices are selected will correspond to their SAVI Link #



Note: If there are many results, you can search for the specific device.

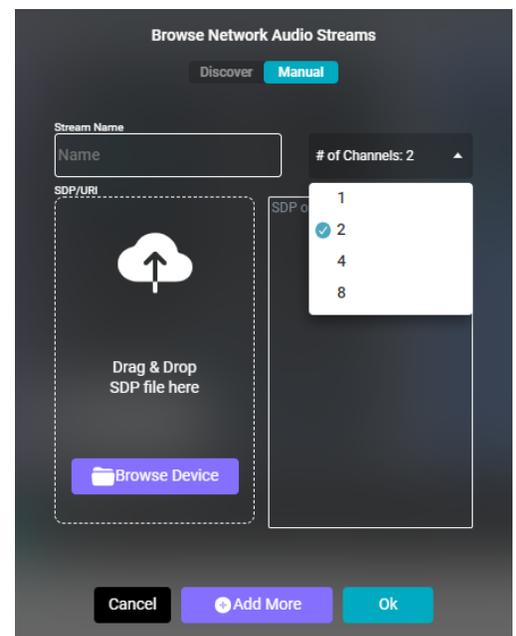
If your device does not appear in the Discovered SAVI Link streams list even after clicking **Refresh**, select **Manual**.

4. Here you can upload an SDP file with the device string or paste a supported link directly into the right field.

- Supported links and formats:
- RTP Audio with 48KHz = rtp:// ,s1audio://
- RTP audio with 44.1KHz = s2audio://
- UDP MPeg TS video stream. ex: com3000 audio = udp:// , udpts://

5. Name the stream and select the number of channels from the drop-down.

6. Click **OK** to close the modal or **Add More** to continue adding devices.

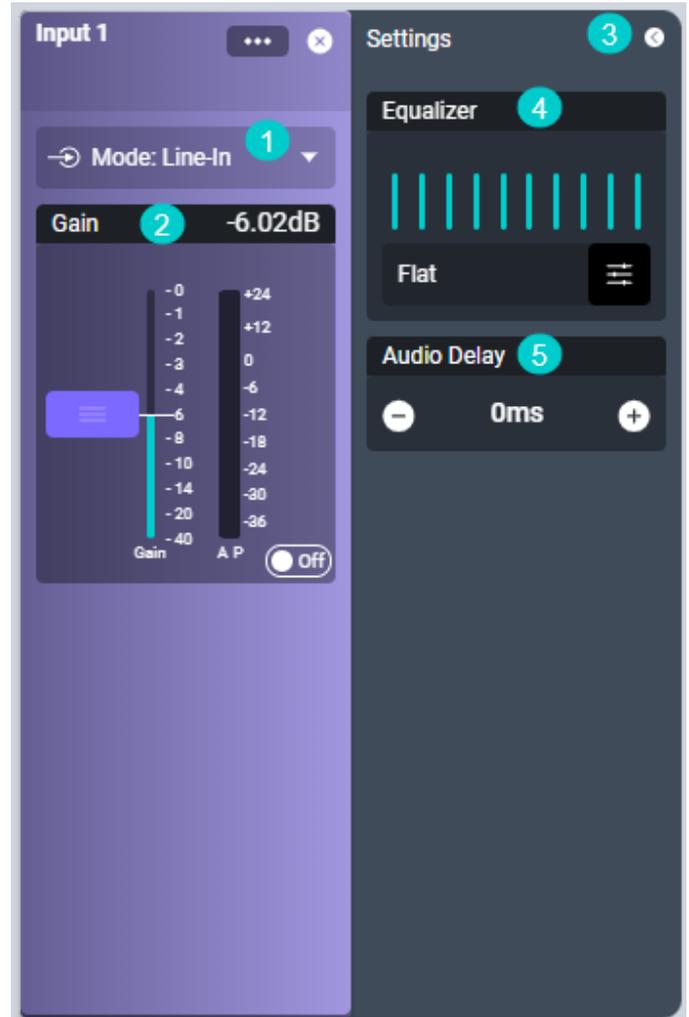


7. INPUTS

Inputs are physically connected audio sources. Simply connect the source to one of the numbered phoenix connectors on the back of the device then select the corresponding I/O Card from the Carousel. Selecting your desired Mode will affect what options are available.

Input Properties:

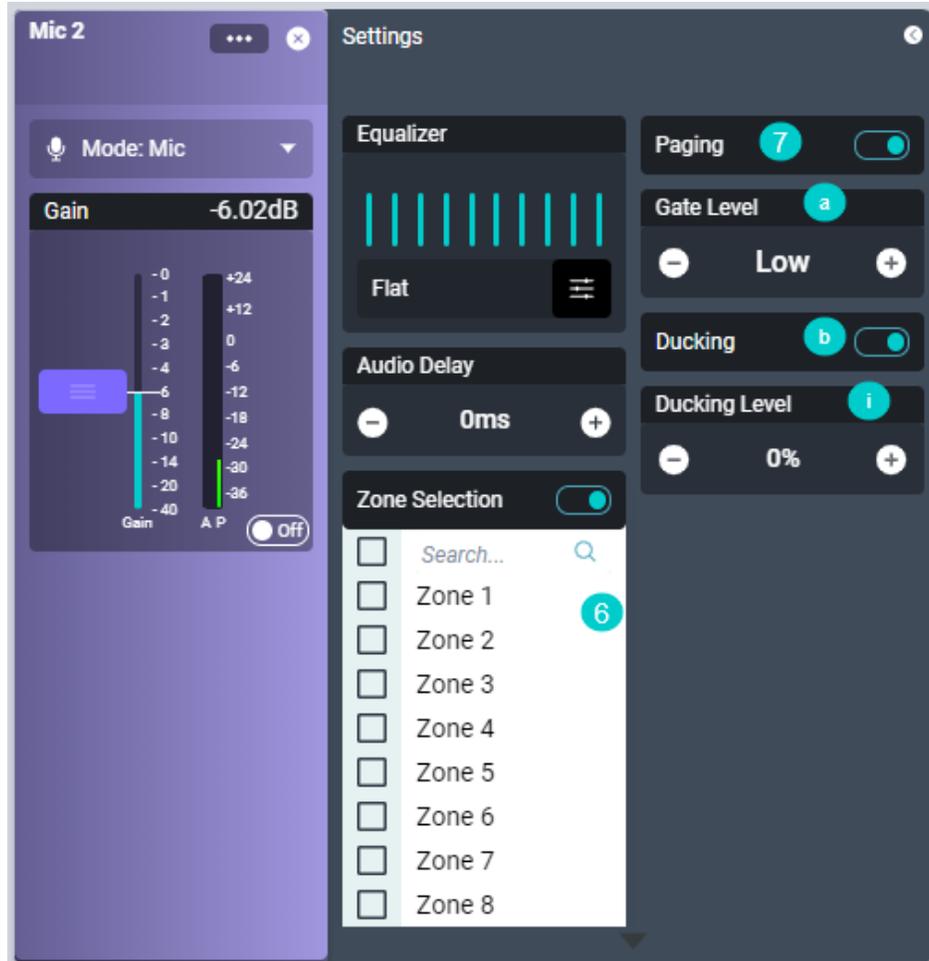
- 1. Mode:** This specifies the input connection type.
 - **Line-In:** Set as a standard 2-pin audio input.
 - **Line-In Balanced:** Allows for 3-pin audio connections.
 - **Microphone:** Set as a mic with appropriate options. (Only inputs 1-4 support mic settings)
- 2. Gain:** This sets the input gain level for tone control.
 - a. Peak Hold:** Toggle this on to place a red mark on the highest Average and Peak meters. Resets when toggled off.
- 3. Expand/Collapse:** The arrow on the side of the card opens to reveal the settings pane.
- 4. Equalizer:** Shows the current EQ bands in a visual graph and the name of the currently selected EQ preset. May be set to one of six presets or customized by clicking **Button** to the right of the name.
 - **Modify:** Selecting the button displays the EQ Settings modal. Allows access to ten individual frequency sliders and creating or editing preset EQs.
- 5. Audio Delay:** Allows the audio to play on a delay (range=0 to disable, up to 7,200ms or 7.2 sec).



Please see section 10 for EQ settings

WARNING: DO NOT CONNECT AMPLIFIED AUDIO TO THE INPUTS OF THE DSP.ONE

Reminder: Ensure your cabling is configured correctly for either Balanced or Unbalanced. Check "2.3. Connector Wiring" on page 6 for more information.



Microphone Properties:

Setting an input to Microphone will enable new options.

- 6. Zone Selection:** Directs individual Inputs to specific Outputs or Mixes.
- 7. Paging:** Enabling this allows the input to play in a Mix upon detecting audio input surpassing the Gate Level.
 - a. Gate Level:** Select from Low, Med, or High to determine when paging audio is detected.
 - b. Ducking:** Enabling this will enable the Ducking Level. Set to Off by default.
 - i. Ducking Level:** Sets how much other audio input gains are reduced when the paging mic is detected. (0%=gain not reduced, 100%=gain muted)

Reminder: Only 16 total Inputs can be active across both SAVI Link and Line in

7.1. CONFIGURING AN INPUT

1. Correctly wire the input into the euroblock and ensure it is fully seated
 - See “2.3. Connector Wiring” on page 6 for the wiring guide
2. Select the corresponding Input I/O Card from the Carousel
3. Set the Mode and adjust settings as desired

8. MIXES

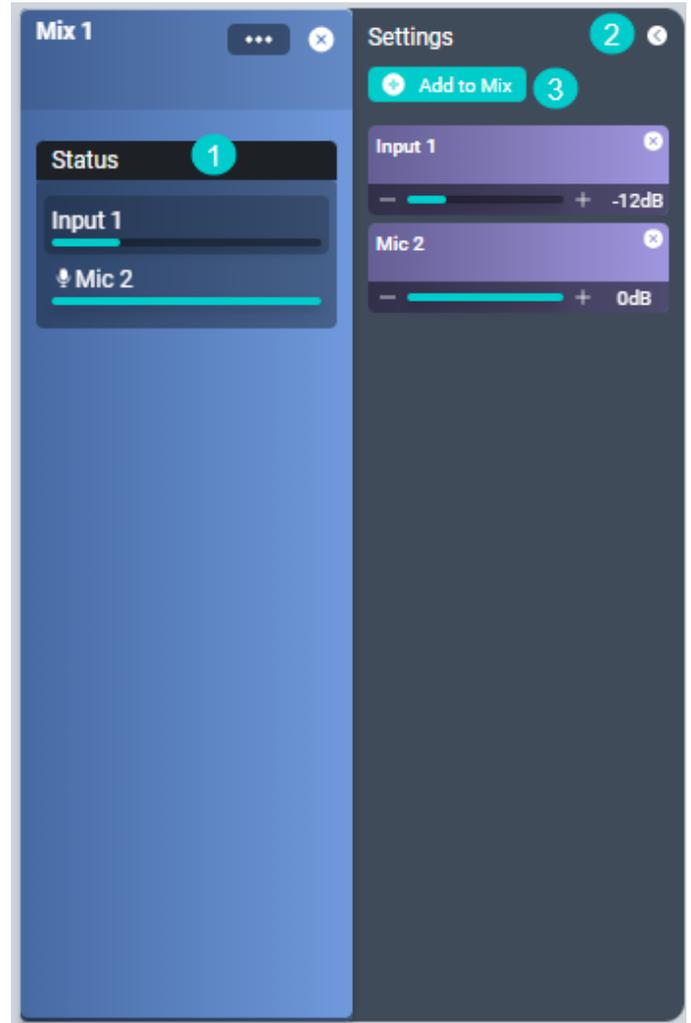
Mixes allow combining multiple source inputs together to play on one or more Zones. Mixes are created on an as-needed basis by selecting the **Add New Mix** button in the Carousel.

Mix Properties:

1. **Status:** Displays the gain level of all connected SAVI Links and Inputs.
2. **Expand/Collapse:** The arrow on the side of the card opens to reveal the settings pane.
3. **Add to Mix:** Opens a drop-down that lists all available SAVI Link and Input sources.
 - **Gain Control:** The gain level on each connected source can be adjusted by using the **+** and **-** buttons on either side of the gain bar below each source. Alternatively, select the dB amount to type in a specific value.

8.1. ADDING A MIX

1. Navigate to the Mixes in the Carousel
2. Click **Add New Mix** on the left side of the Carousel
3. Select the new Mix I/O Card from the Carousel
4. Open the tray in the Mix Card
5. Click **Add to Mix**
6. Select one or more desired SAVI Links and/or Inputs
7. Set Mix gain levels between sources as needed



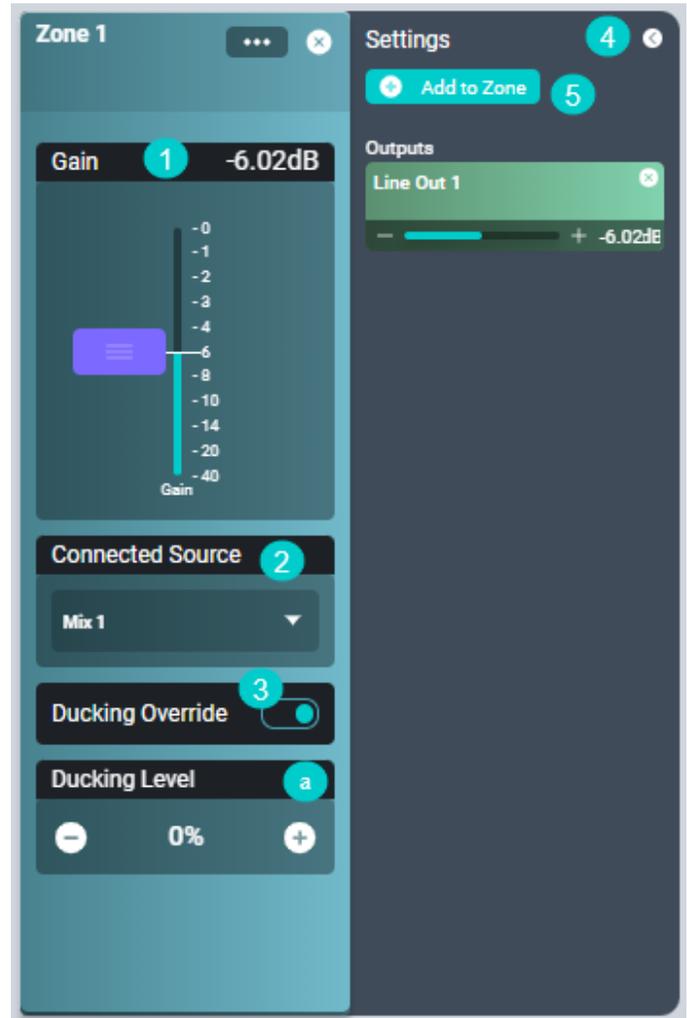
9. ZONES

Zones allow channeling a single SAVI Link, Input, or Mix to multiple Outputs. Zones will appear in Facility View as an Audio Zone.

In the DSP.One UI, Zones function like a reverse of Mixes. However, Zones have much more control than Mixes.

Zone Properties:

1. **Gain:** Sets the output volume for the whole Zone and is what is adjusted in Facility View when changing Audio Zone volume.
2. **Connected Source*:** The drop-down allows adding or changing the selected source from the Source Catalog. (Only ONE source may be selected. Use a Mix if multiple sources are desired)
3. **Ducking Override:** Overrides normal ducking settings for this specific zone.
 - a. **Ducking Level:** (Only available when Ducking Override is enabled) Sets how much audio input gains are reduced when the paging mic is detected. (100%=gain not reduced, 0%=gain muted)
4. **Expand/Collapse:** The arrow on the side of the card opens to reveal the settings pane.
5. **Add to Zone:** Connects Zones to one or more Physical Outputs.



9.1. CONFIGURING A ZONE

1. Navigate to the Zones in the Carousel
2. Select the desired **Zone I/O Card** from the Carousel
3. Open the tray in the Zone Card
4. Click **Add to Zone**
5. Select one or more desired **Line Outs**

*Since Zones are Audio Zones within Facility View, the Connected Source option is not required. The Connected Source will update in real time when selecting the Audio Zone in Facility View and assigning a source.

10. OUTPUTS

Outputs are separated into two subcategories; Physical and Network. Physical Outputs offer a host of configuration options while Network Outputs simply make SAVI Links, Inputs, and Zones available to other DSP.Ones on the network.

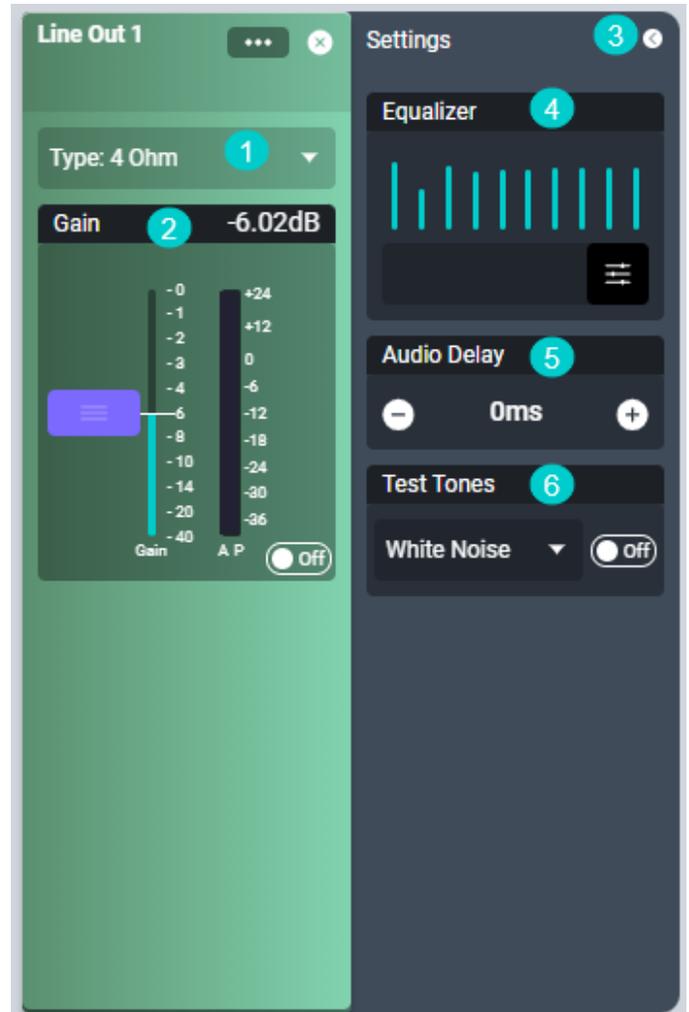


10.1. PHYSICAL

Physical Outputs are where your physically connected speakers are located. These are also labeled as Line Outs. Each Line Out corresponds to the same numbered Output euroblock connector on the back of the device. You must connect a Zone to a Physical Output by using the **Add to Zone** button in the tray of the desired Zone.

Physical Output Properties:

1. **Type:** Select the connection type. (Except for Low Pass, this is only for documentation)
 - **4/8 Ohm & 70/100V:** Used for documentation.
 - **Low Pass:** Applies a low pass filter with a crossover of 80Hz to the Output.
2. **Gain:** This sets the gain for the entire output channel and is what is adjusted in Facility View when changing Audio Zone volume.
 - a. **Peak Hold:** Toggle this on to place a red mark on the highest Average and Peak meters. Resets when toggled off.
3. **Expand/Collapse:** The arrow on the side of the card opens to reveal the settings pane.
4. **Equalizer:** Shows the current EQ bands in a visual graph and the name of the currently selected EQ preset. May be set to one of six presets or customized by clicking **Button** to the right of the name.
 - **Modify:** Selecting the button displays the EQ Settings modal. Allows access to ten individual frequency sliders and creating or editing preset EQs.
5. **Audio Delay:** Allows the audio to play on a delay (range=0 to disable, up to 1,200ms or 1.2 sec).
6. **Test Tones:** Toggling this on will produce a continuous signal for audio testing. Select one of the options from the drop-down.
 - **Sine Tone:** Creates a signal with a single frequency tone.
 - **White Noise:** Creates a signal with many frequencies at equal intensity.



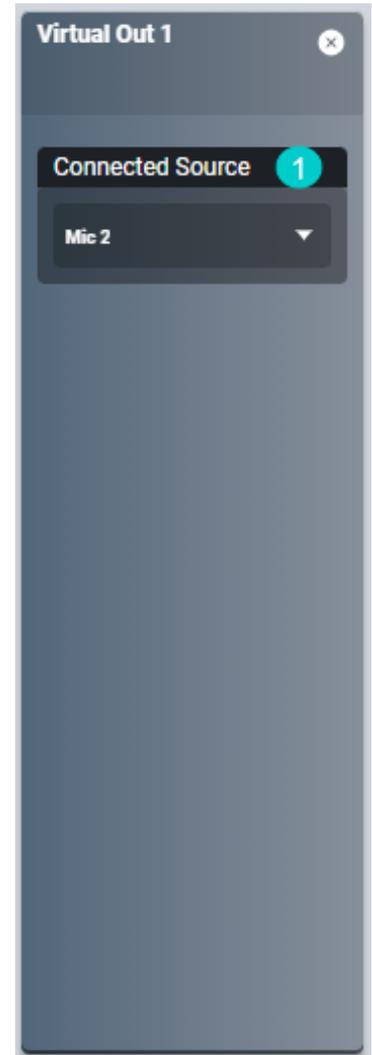
10.2. NETWORK

Network Outputs are digital only and are also labeled as Virtual Outs. They are used to make SAVI Links, Inputs, and Zones available as a SAVI Link source to other DSP.Ones on the network. These outputs will appear on all DSP.Ones as a discoverable stream. This output may be modified by changing or editing the **Connected Source** and will update across devices that use it as a SAVI Link.

Together, physical and virtual outputs allow for a total of 32 simultaneously active outputs.

Network Output Properties:

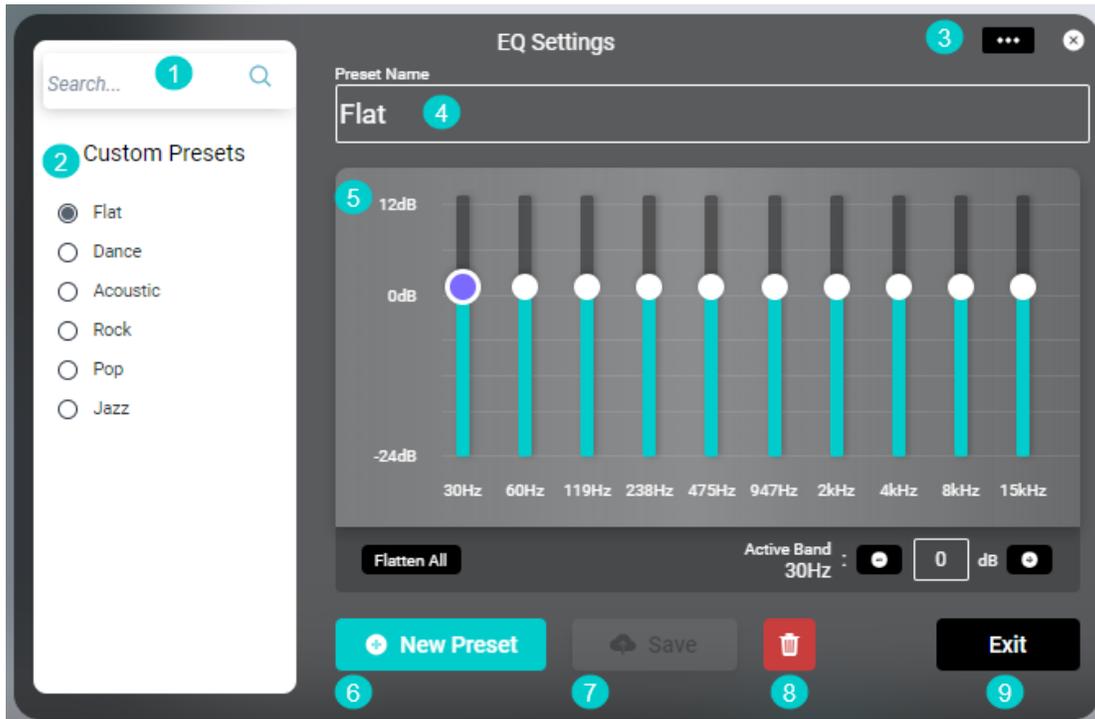
- 1. Connected Source:** The drop-down allows selecting ONE SAVI Link, Input, or Zone.



Note: While the DSP.One is restricted to 16 physical outputs, all 32 outputs may be configured for hot-swapping active outputs.

Warning: Virtual Outs will NOT appear in Facility View.

11. EQ SETTINGS



Click on the button to the right of the name under Equalizer to launch the EQ Settings modal. Custom presets can be created, edited, or deleted here. With no restrictions on the number of presets created, the Search bar cuts down on having to scroll through all presets.

EQ Settings Properties:

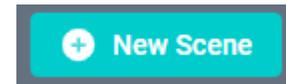
1. **Search:** Search all preset names.
2. **Custom Presets:** Displays all presets. Can be filtered by using the Search bar.
3. **Ellipses Menu:** Click to reveal additional options.
 - **Export EQ Presets:** Saves all presets as a CSV file.
 - **Import EQ Presets:** Uploads a previously exported CSV file.
 - **Clear All Custom Presets:** Deletes all presets.
4. **Preset Name:** An editable field with the currently selected preset name.
5. **EQ Sliders:** Sliders for ten frequency bands (range= -24dB to 12dB)
 - **Flatten All:** Sets all frequency bands to 0dB.
 - **Active Band:** Displays currently selected frequency band exact dB level. Use the + and - buttons to change in 0.5 increments or select the digit and type in a specific value. Press Enter to input.
6. **New Preset:** Creates a duplicate of the currently selected preset.
7. **Save:** Saves the current configuration for the preset.
8. **Delete:** Permanently removes the preset.
9. **Exit:** Click to close modal. (can also click anywhere outside of the modal to close)

12. SCENES

Scenes are how to save your work and are an integral part of the versatility of SAVI's DSP.One. Creating a Scene saves all current configurations in a quick select shortcut. Once a Scene has been saved, feel free to change settings and rearrange the connections on the DSP.One. This new configuration can also be saved as a Scene and activating a Scene will reapply that configuration.

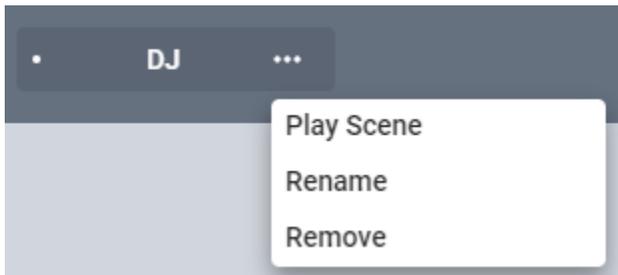
12.1. CREATING A SCENE

1. Start by configuring the DSP to your desired specifications.
2. Next, decide if you want to include or exclude gain settings as part of the saved Scene.
 - a. To include gain, toggle **Include Gain** to the on position in the Main Menu. Otherwise toggle it off.
3. Select the **New Scene** button.
4. Either select the name of the Scene or select Rename from the ellipsis menu to type in a new name.
5. Press 'Enter' on your keyboard to save the name.



12.2. PLAYING A SCENE

Activating or playing a Scene is even easier than creating one. Simply select the ellipsis menu on the scene you want to play and select **Play Scene**. A green play light will activate to let you know the Scene is running.



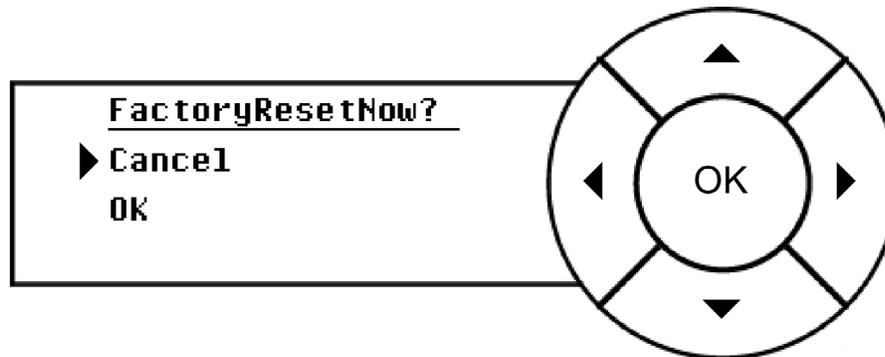
Note: It may take a few seconds for the Scene to fully update the system.

13. FACTORY RESET

The device can be completely reset to factory settings with two separate methods.

1. The first method is to navigate to Factory Reset in the Main Menu list, select it, and select OK
2. The second method is to hold in the physical reset button found on the back of the device for 10 sec (see "2.2. Physical Layout" on page 4)

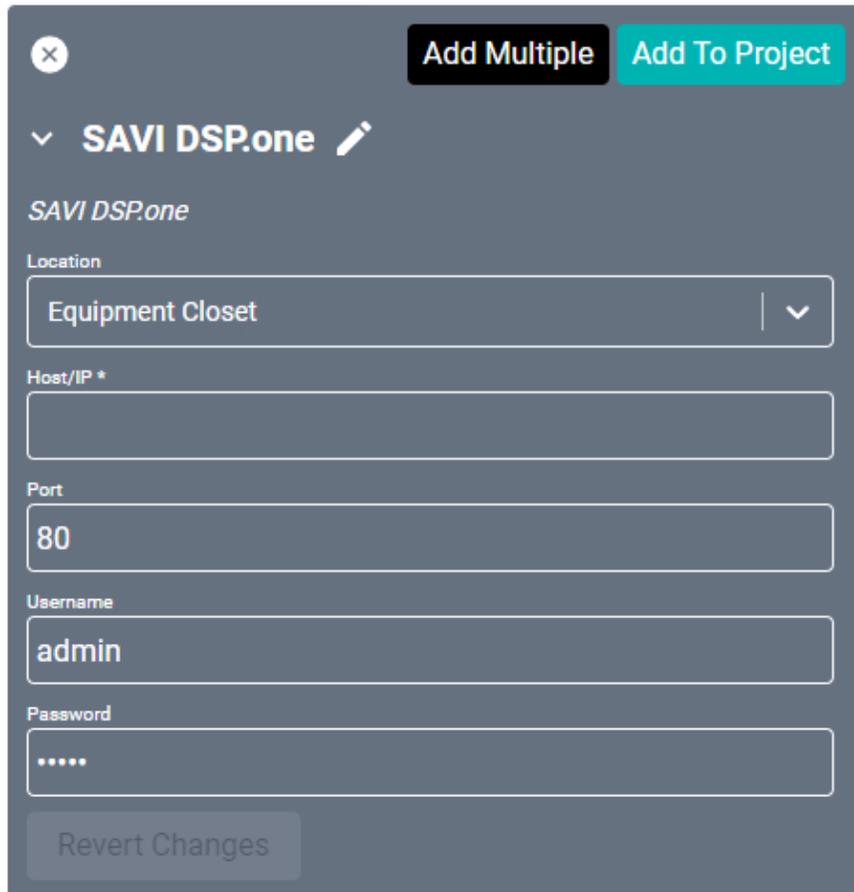
Warning: Factory Reset will erase all custom data from the device.



14. CREATOR

To fully integrate the DSP.One into an existing SAVI Server Pro project, it will need to be added in Creator.

More information on Creator can be found in the Creator Dealer Guide located on the [SAVI dealer portal](#).



The screenshot shows a configuration modal for a SAVI DSP.one device. At the top right, there are two buttons: 'Add Multiple' (black) and 'Add To Project' (teal). Below the title 'SAVI DSP.one' with a pencil icon, the device name 'SAVI DSP.one' is displayed. The form contains several fields: 'Location' (a dropdown menu with 'Equipment Closet' selected), 'Host/IP *' (an empty text input), 'Port' (a text input with '80'), 'Username' (a text input with 'admin'), and 'Password' (a masked text input with six dots). A 'Revert Changes' button is located at the bottom left of the modal.

1. Log into **Creator**
2. Navigate to **Equipment**
3. Search for **SAVI DSP.One** under **Add Equipment**
4. Select the driver
5. Name the device
6. Fill out the properties
 - a. Location:** Select a location from the drop-down or type in a new location.
 - b. Host/IP:** Enter the IP address of your DSP.One (this is displayed on the front panel of the device)
 - Do this after assigning a static IP address when not using DHCP
 - c. Port:** Enter the port to use for the device (default is 80)
 - d. Username:** Enter your username for the DSP.One UI login
 - e. Password:** Enter your password for the DSP.One UI login
7. Click **Add to Project**

14.1. CONNECTIONS

The DSP.One requires some minor configuration in Connections. Specifically, source drivers need to be selected for each SAVI Link and Input, and Audio Zones selected for each Zone.

Any changes made to this driver will update live on the DSP.One UI (This may require a refresh of the DSP.One UI to reflect the changes).

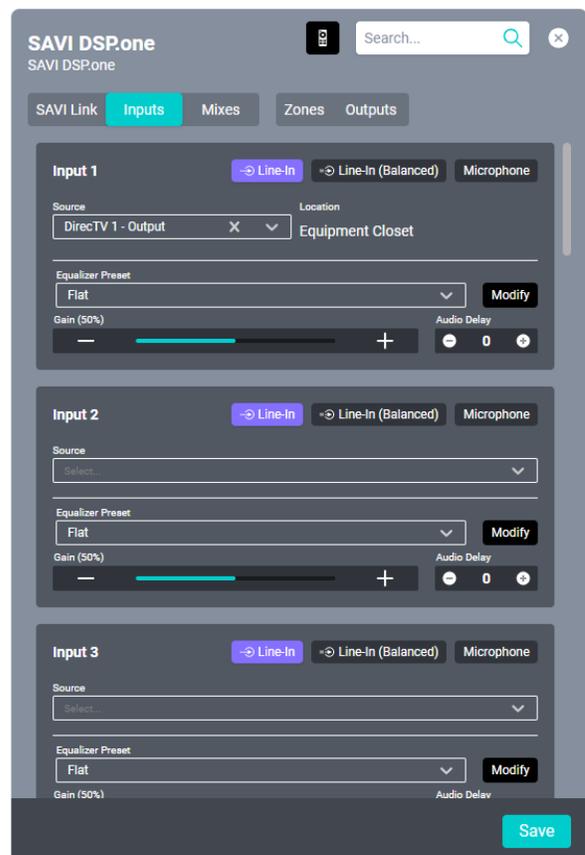
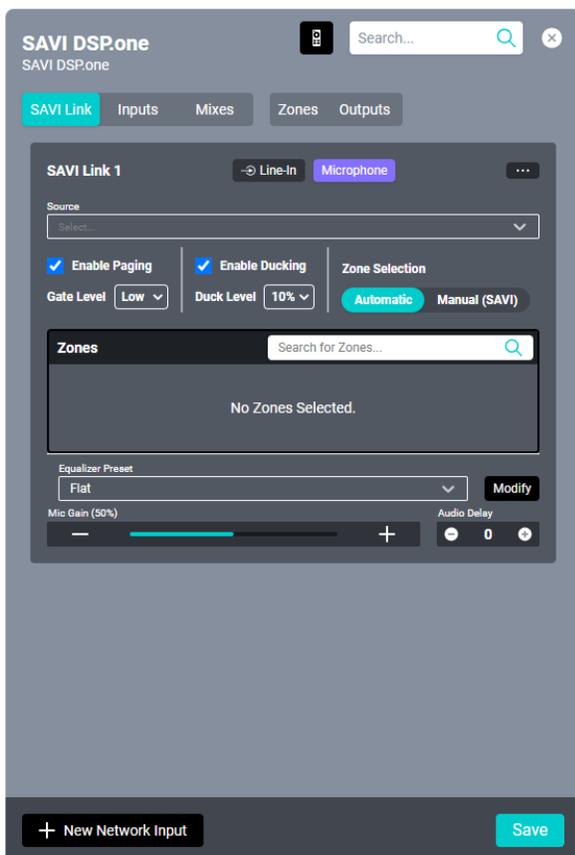
14.1.1. SAVI LINK & INPUTS

The source driver for each SAVI Link and Input connection created in the DSP.One will need to be established so Facility View knows what to display.

The properties available for each connection mirror the ones in the DSP.One UI with the addition of a Source drop-down that pulls from drivers added to the Creator project.

To configure:

1. Select the **Source** drop-down in the SAVI Link or Input
2. Choose one of the project source drivers
 - If the driver is not listed, add it as usual in Equipment
3. Repeat these steps as necessary for each SAVI Link and Input
4. Click **Save** in the bottom right of the DSP.One Connections driver



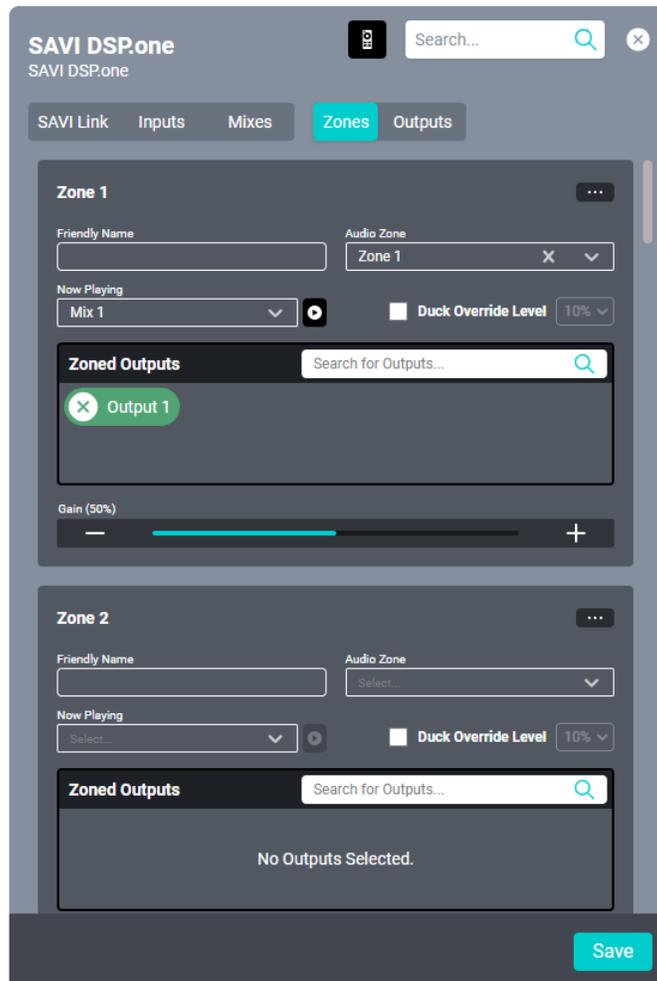
14.1.2. ZONES

Similar to SAVI Links and Inputs, Zones require a connected Audio Zone from those available in the project.

The properties available for each connection mirror the ones in the DSP.One UI with the addition of an Audio Zone drop-down that pulls from drivers added to the Creator project. There is also a Friendly Name field that may be used to update the name in the DSP.One UI.

To configure:

1. Select the **Source** drop-down in the Zone
2. Choose one of the project source drivers
 - If the driver is not listed, add it as usual in Equipment
3. Repeat these steps as necessary for each Zone
4. Click **Save** in the bottom right of the DSP.One Connections driver



14.1.3. MIXES & OUTPUTS

Mixes and Outputs may also be configured here. Their properties also mirror those in the DSP.One UI.

The Friendly Name field will display any custom name used in the I/O Card for that Mix or Output.

