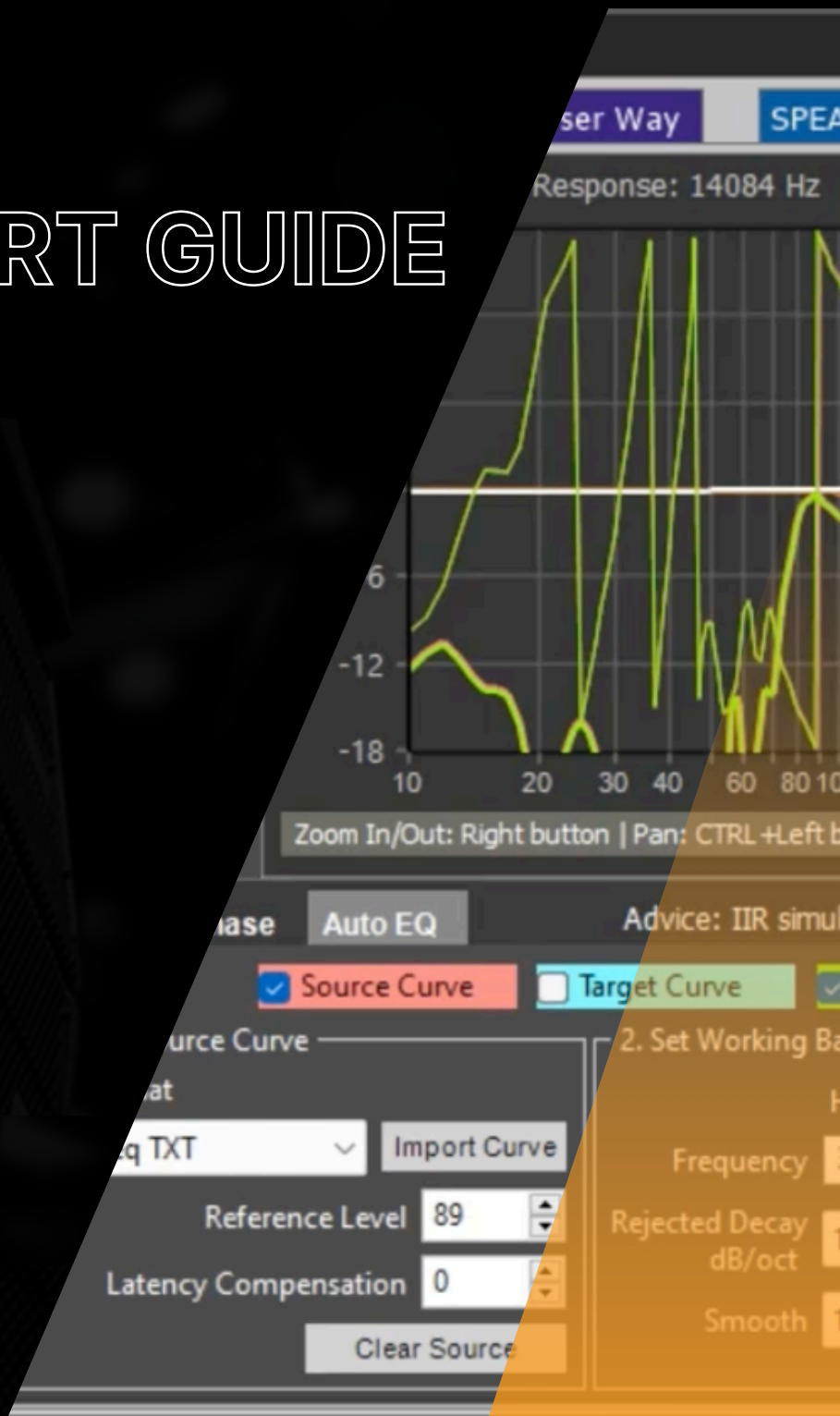
OCS

QUICK START GUIDE

LYNX PRO AUDIO

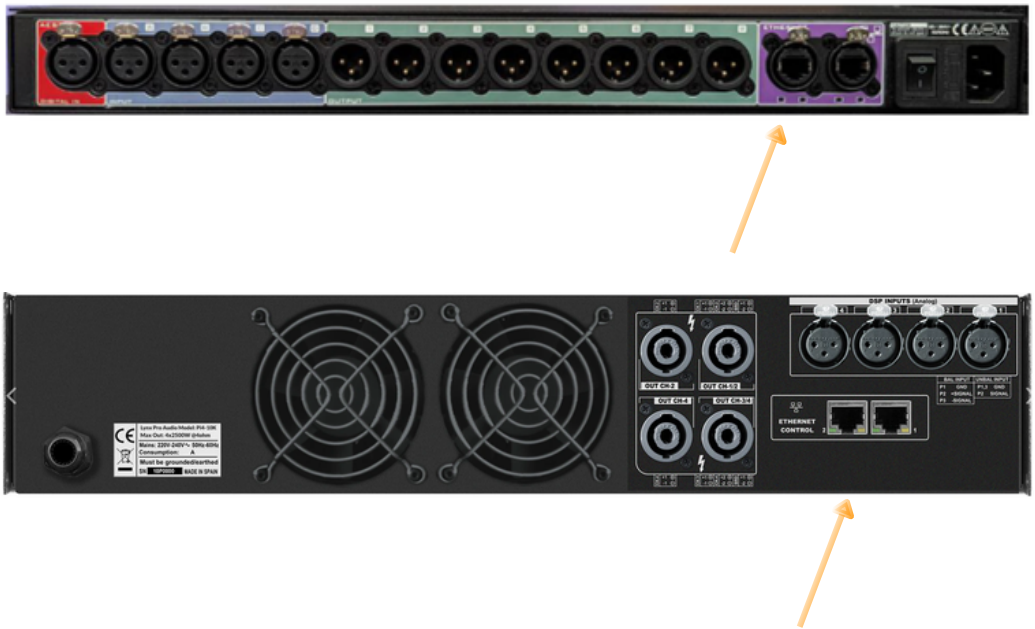


LYNX pro-audio

Welcome to Lynx Pro Audio OCS, the Online Control System for LUKA processors, GTX/XT amplifiers and all self powered cabinets. This guide provide a quick introduction to controling and monitoring the DSP units through an Ethernet network in a Windows system.

Connecting the LUKA/GTX/XT to a computer

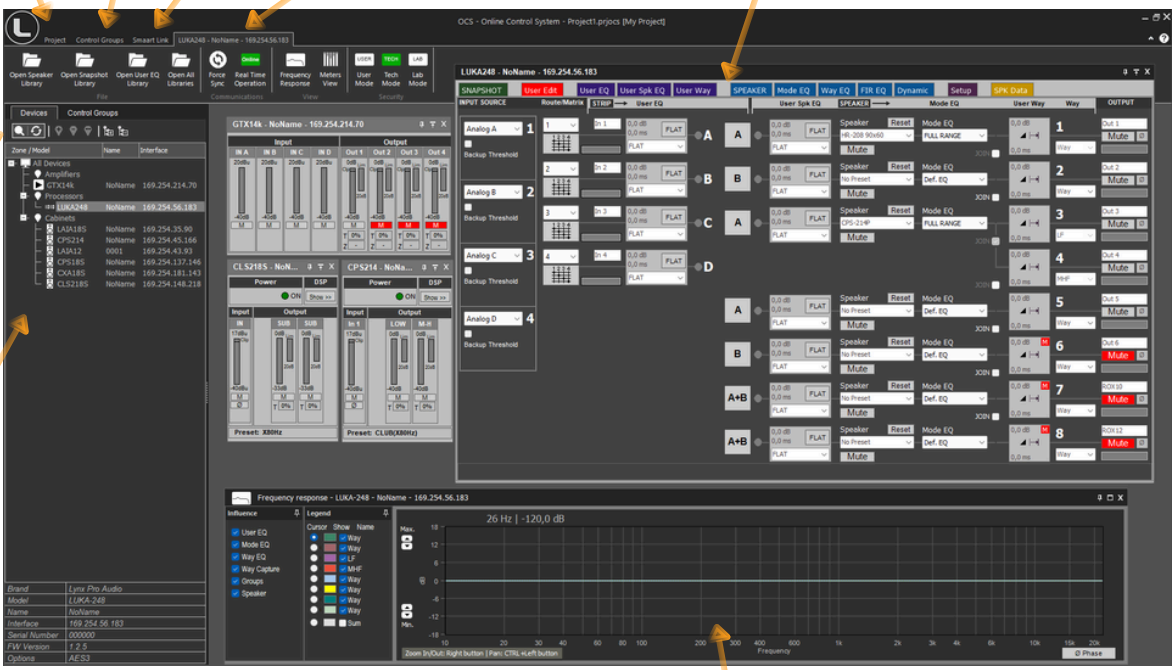
The LUKA's RJ-45 port connects to a standard computer Ethernet port, router, or network switch using CAT-5e (or higher) cables. The Ethernet connection enables remote control and monitoring from a or Windows computer running OCS (Online Control System) software. Bidirectional communication keeps all device parameters synchronized between OCS and the hardware in real time.



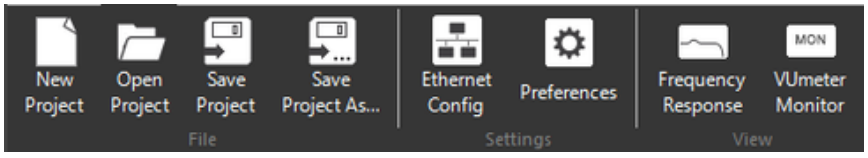
By default, all DPS driven devices are configured for DHCP operation, allowing automatic network configuration and discovery within OCS. Static IP addressing is also supported; when used, all devices on the control network, including the OCS computer, must be configured within the same IP subnet.

Using OCS software

The main screen consists of the following elements:



Project Menu icons:

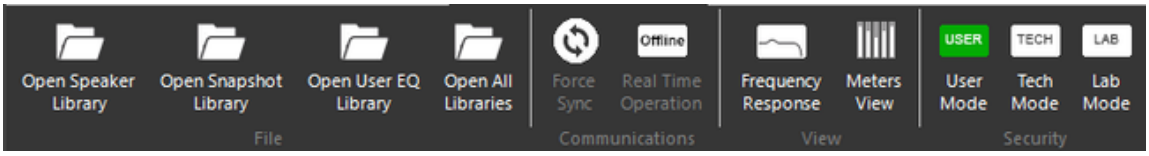


File section: This section contains icons for creating, opening or saving projects.

Settings section:

- **Ethernet configuration:** This section provides functions for selecting the network adapter, assigning IP addresses to devices, rebooting Ethernet modules, renaming devices, and identifying devices on the network.
- **Preferences:** Project information and general settings. Ambient temperature and relative humidity parameters can also be configured in this section.
- **Frequency Response:** Displays the frequency response graph for the current DSP configuration.
- **VUmeter Monitor:** Enables or disables Monitor Mode. When enabled, real-time amplifier data is available in the device window.

Device Menu icons:



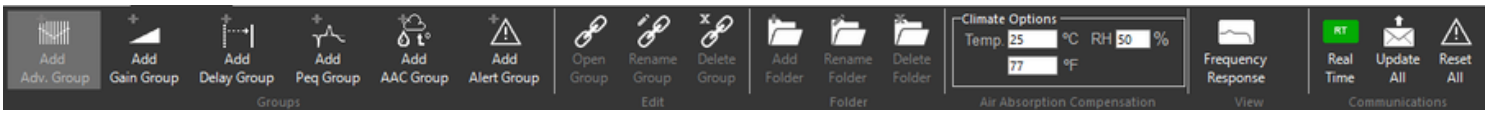
File section:

This section contains icons for opening different libraries.

Communications section:

- **Force Sync:** Forces synchronization between OCS and the device.
- **Real Time Operation:** Turns real-time mode on/off, allowing any changes made to the DSP configuration or amplifier setup to be applied instantly.
- **Frequency Response:** Displays the frequency response graph for the current DSP configuration.
- **Meters View:** Enables or disables Monitor View. When enabled, real-time amplifier data is available in the device window.
- **Security:** This section allows the user to select the desired operating mode.
- **User Mode:** Basic operation mode. Provides access to essential controls and monitoring functions while preventing modification of advanced settings.
- **Tech Mode:** Advanced mode for system technicians. Allows access to configuration, setup, calibration, and speaker library functions required for system deployment and optimization.
- **Lab Mode:** Full-access engineering mode intended for testing, development, and diagnostics. Provides unrestricted access to all system parameters, experimental features, and low-level configuration options.

Control Group Menu icons:



The ***Control Groups*** feature allows the same processing adjustments to be applied simultaneously to multiple devices, making system control faster and more efficient.

Groups section:

This section contains icons for adding different types of groups.

- **Advanced Group:** Includes gain, mute, polarity inversion, delay and 6 PEQ's.
- **Gain Group:** Includes gain.
- **Delay Group:** Includes delay.
- **Peq Group:** Includes only one PEQ.
- **AAC Group:** Atmospheric compensation group.
- **Alert Group:** For alarms and fault conditions.

Edit and Folder sections:

Different group and folder functions, Add, Rename or Delete.

Air Absorption Compensation section:

Here, you can define the temperature and relative humidity values used for acoustic calculations.

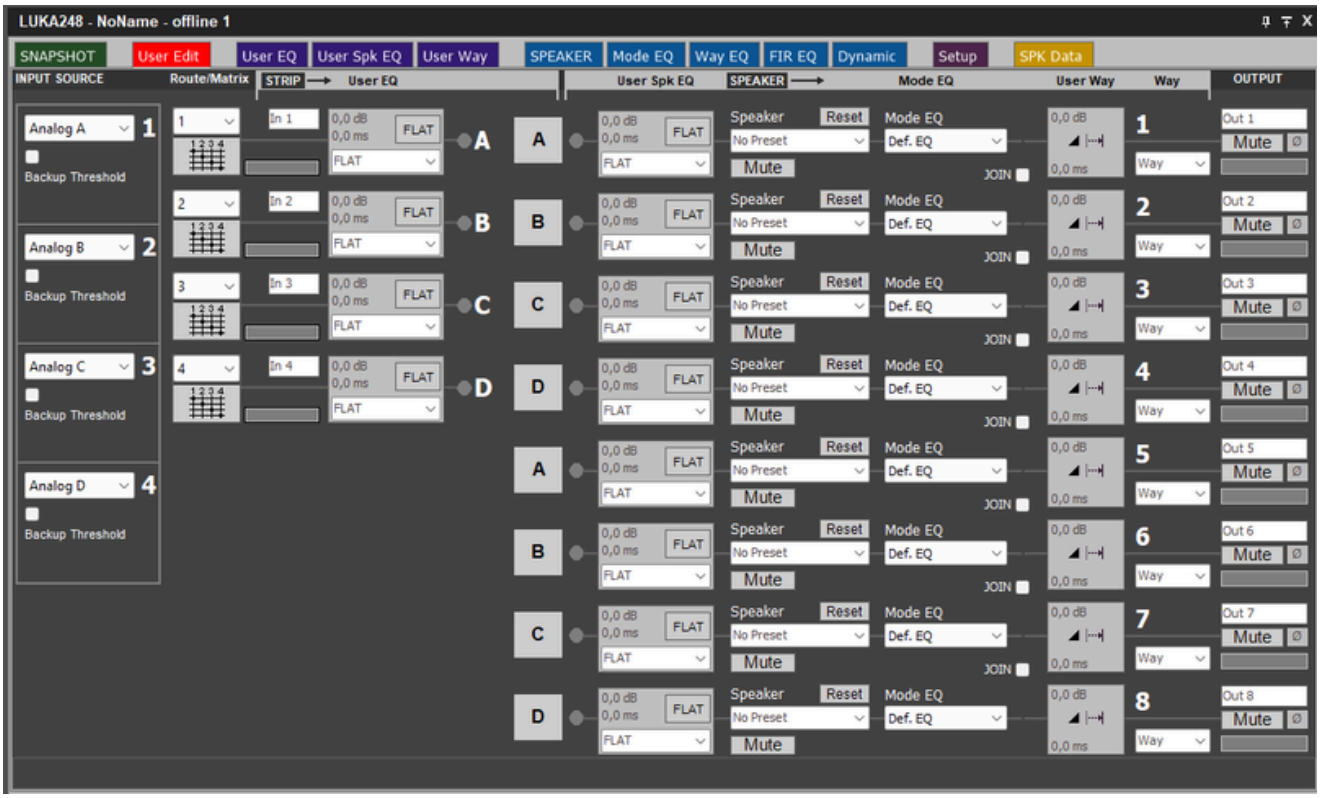
View:

- **Frequency Response**: Displays the frequency response graph for the current DSP configuration.

Communications:

- **Real Time:** Turns real-time mode on/off, allowing any changes made to the Control Group to be applied instantly.
- **Update All:** Synchronizes all devices in the Control Group with the current OCS configuration.
- **Reset All:** Restores all devices within all Control Groups to their default settings.

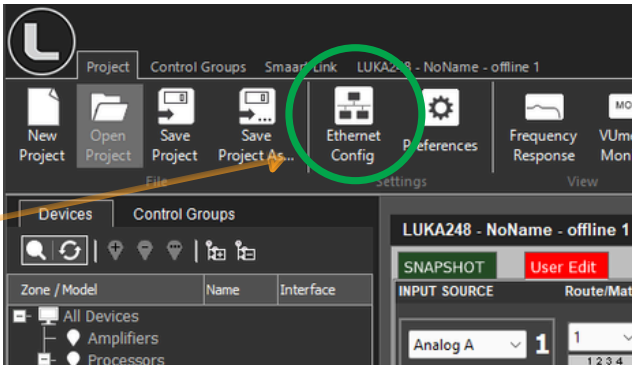
Luka / GTX / XT Device Window:

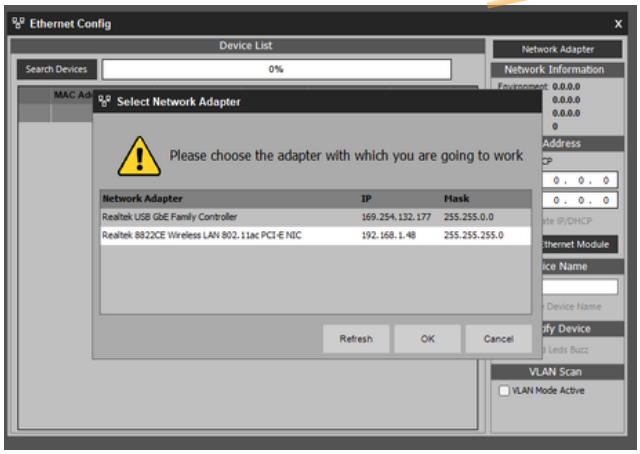


To open the device window, double-click the device you want to access in the Device Tree.

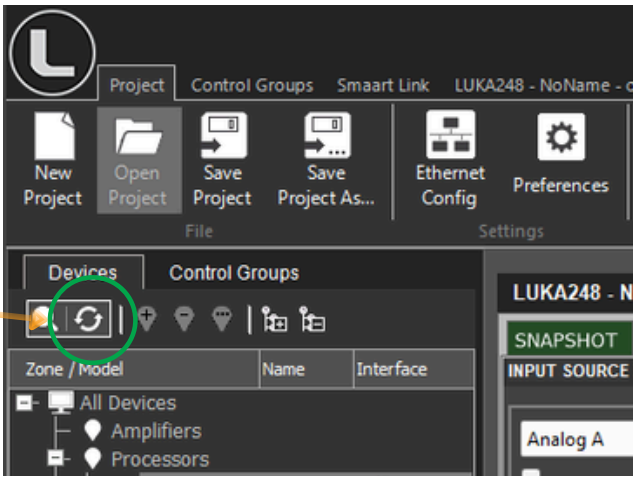
- **Snapshot Tab:** Store and recall complete system configurations, allowing quick switching between different setups.
- **User Edit Tab:** Provides access to all configurable system parameters and a summary view of the current configuration. This tab allows users to adjust settings, review device status, and verify the overall DSP setup from a single location.
- **IN User Eq:** User level input EQ.
- **OUT User Eq:** User level output EQ.
- **User Way:** User level gain, mute, and polarity.
- **SPEAKER Tab:** The Speaker tab allows users to select, load, save and apply manufacturer-defined loudspeaker presets, ensuring the system operates with the recommended processing and protection settings for each cabinet.
- **Mode EQ:** Only accessible in Tech or Lab mode, this feature allows the creation of different “modes” within a preset, enabling quick switching between EQ configurations. In bi or tri-way presets, the changes affect all ways simultaneously.
- **Way EQ:** IIR EQ that affects only the selected way.
- **FIR EQ:** FIR EQ that affects only the selected way. Includes a selectable latency setting and an Auto EQ feature.
- **Dynamic:** Limiting section. RMS and Peak limiters are available.
- **Setup:** In the Setup tab, you can adjust the AES3 input trim and delay, set the amplifier gain, and create a password to lock the processor or amplifier.
- **SPK Data:** Here, you can load frequency response and impulse response files.

To begin a basic system configuration in OCS, after connecting all the devices you want to control, select the network adapter being used in the “Ethernet Config” tab.

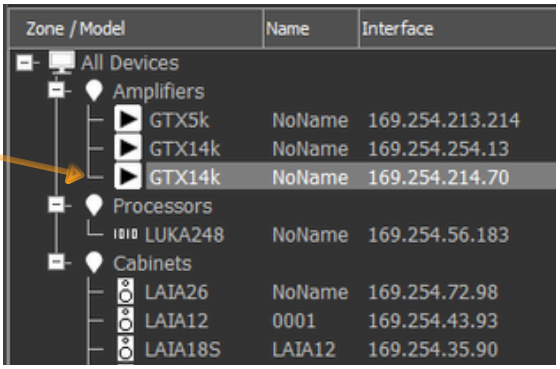


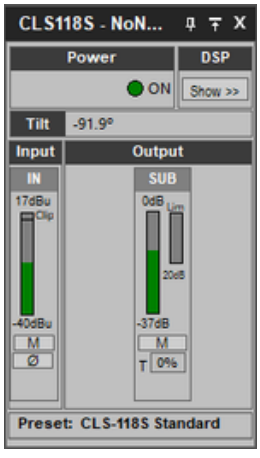


Next, click the “Refresh Device Tree” button to discover the connected devices and display them in the Device Tree.

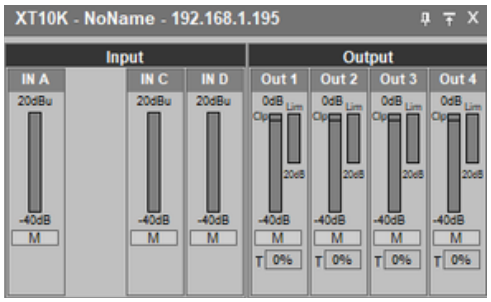


Double-clicking a device opens the basic device window, where you can view the VU meters and mute or invert the polarity of the channels.



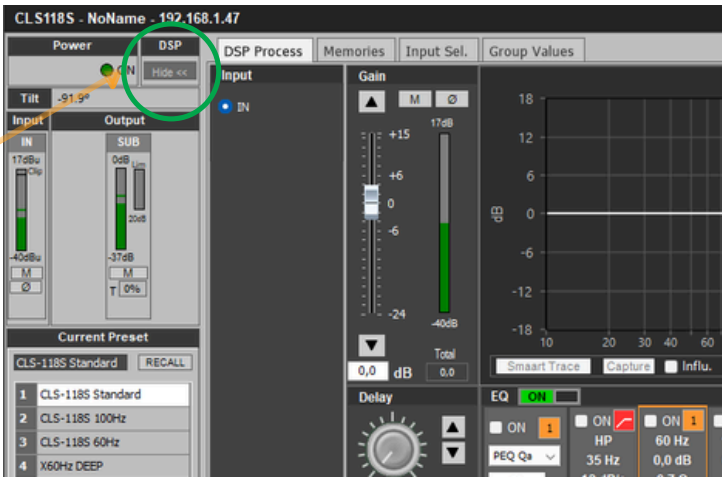


Basic Cabinet window.

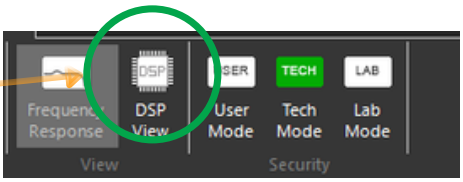


Basic Amplifier window.

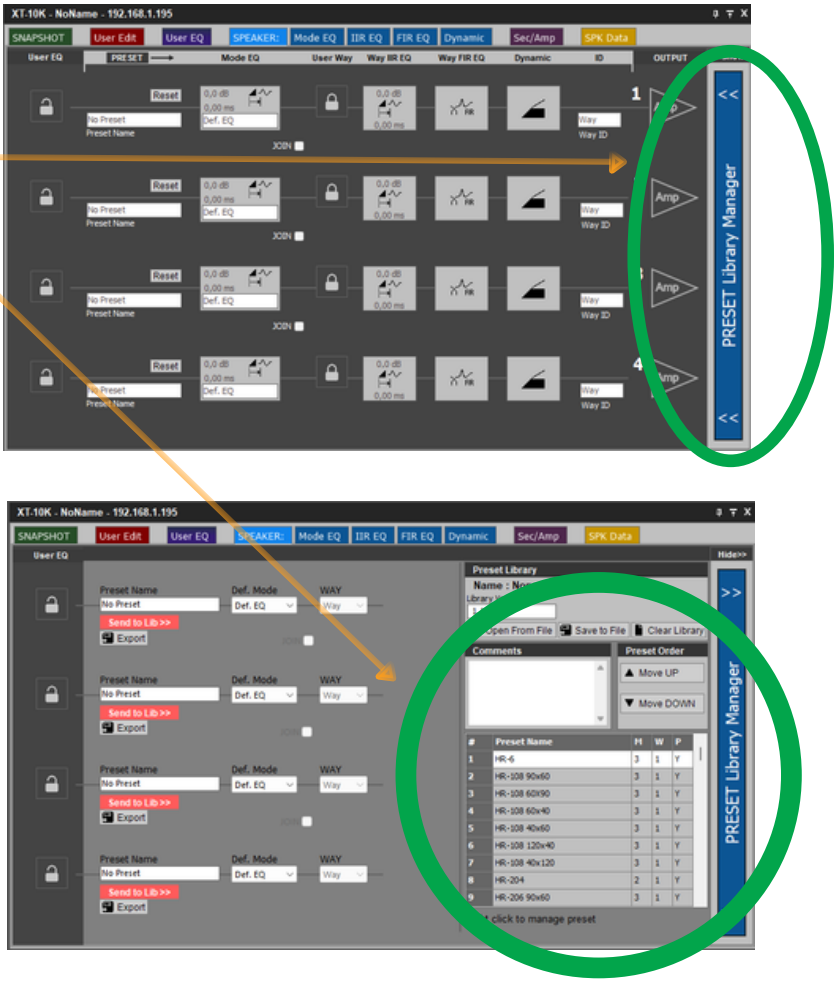
Clicking the Show button in a cabinet's device window opens the user-level controls, allowing you to adjust EQ, gain, mute, polarity inversion, and delay settings.



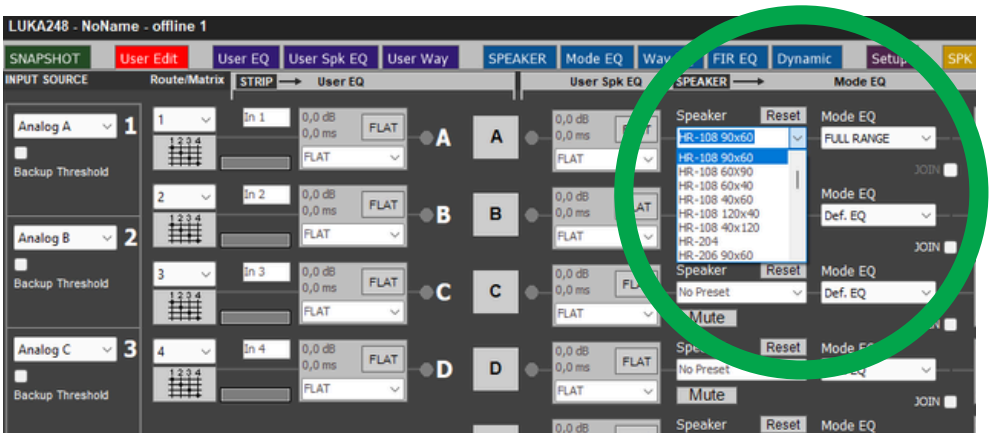
If you are working with a GTX/XT amplifier or a LUKA processor, click DSP View to access additional configuration options. For advanced control and editing features, you must switch to Tech or Lab mode.



Once in Tech or Lab mode, the Speaker tab provides access to the Preset Library Manager, where loudspeaker presets can be loaded, saved and organized.

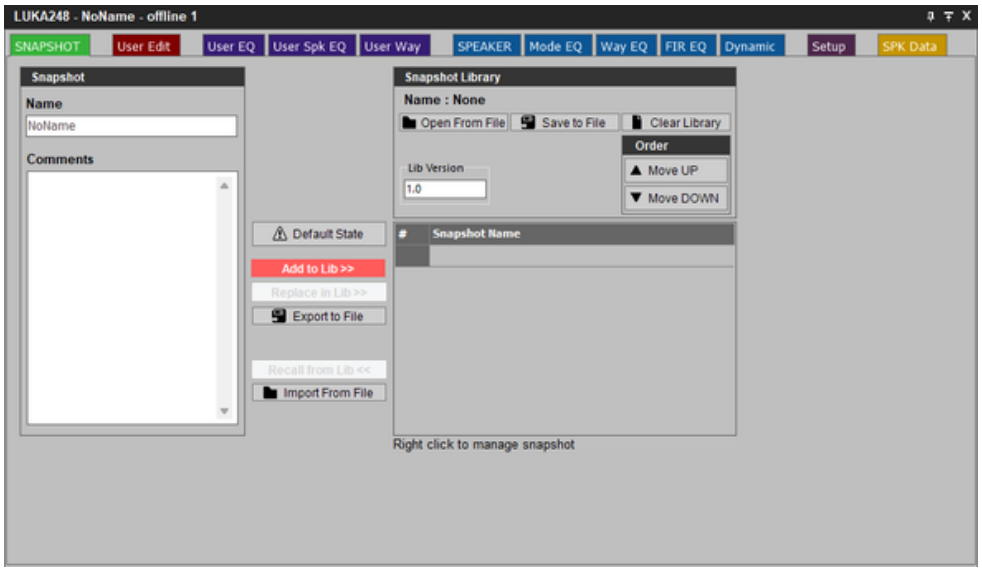


To apply a speaker preset to a channel, go to the *USER EDIT* tab and select the desired preset from the preset list. You can also choose the *MODE* associated with the selected preset.



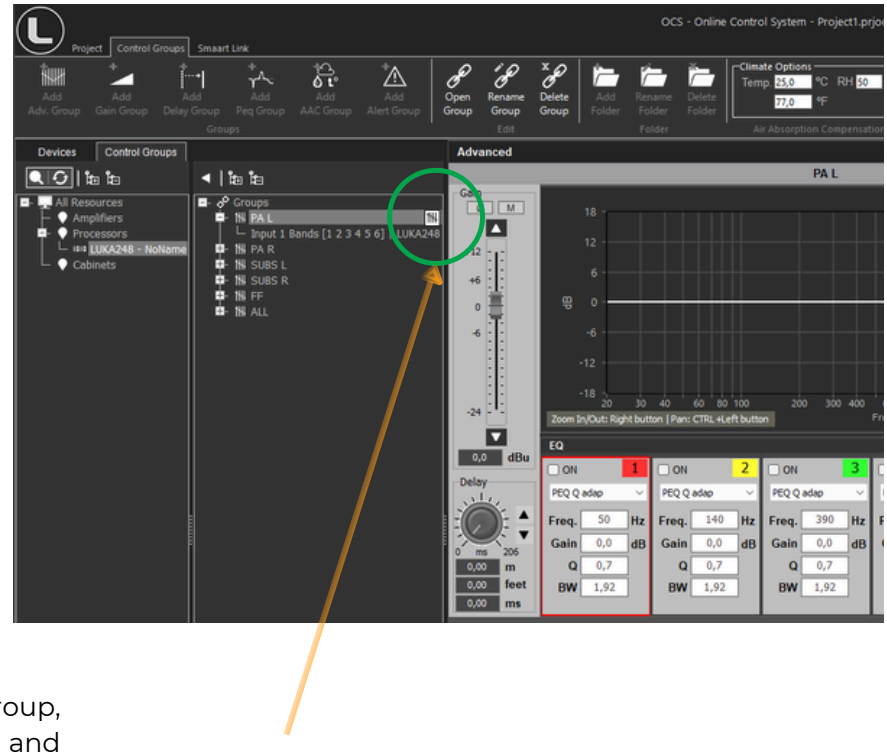
The factory-created presets are protected, so the *MODE EQ*, *WAY EQ*, *FIR EQ*, and *DYNAMIC* tabs are not accessible. However, you can still make adjustments to the EQ, gain, delay, and polarity settings through the *IN USER EQ*, *OUT USER EQ*, and *USER WAY* tabs.

The Snapshot tab allows you to create, save, and recall snapshots of the device's complete configuration. A snapshot stores all processor settings, enabling quick backup and recall of a system setup. However, the speaker preset library is not included in the snapshot and must be managed separately.



The *Control Groups* feature allows the same processing adjustments to be applied simultaneously to multiple devices, making system control faster and more efficient.
The number of control groups that can be assigned to a device depends on the number of EQ points being used.

Control groups that include EQ processing are therefore limited by the available DSP resources, while groups that do not include EQ are not subject to this limitation and can be assigned without restriction.



To add a device to a control group, simply drag it from the Device List and drop it onto the desired control group. Then, select the channel(s) you want to assign to that group. Once assigned, any changes made to the control group will be applied simultaneously to all selected channels within the group.

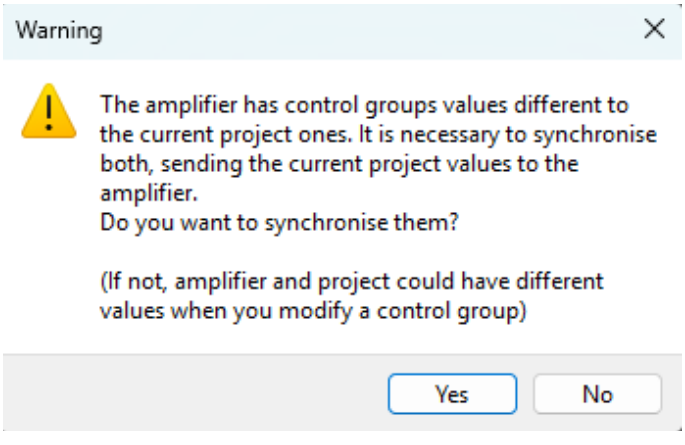
To open the Group window, click the icon located on the right side of the Groups List. This will display the group management interface, where you can view and edit the settings for each control group.

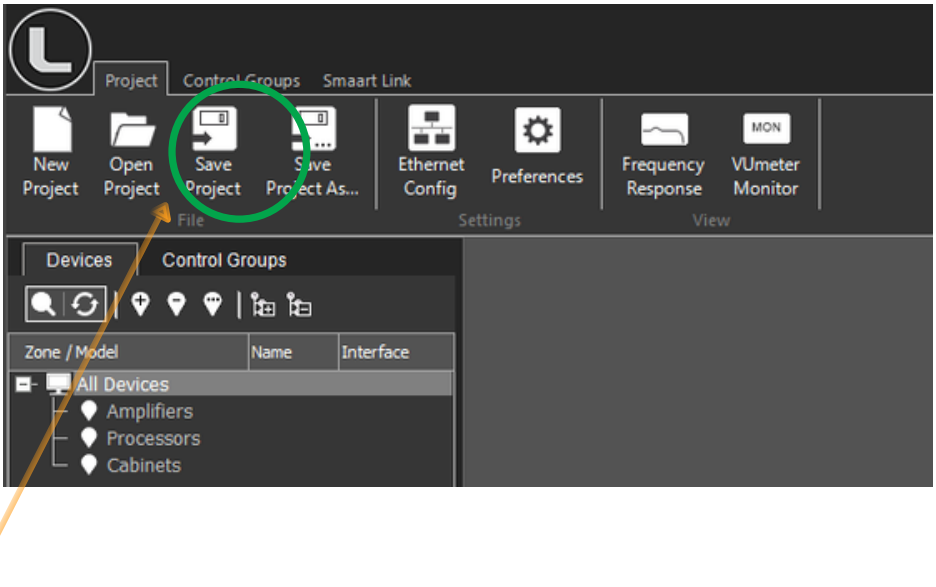
If your project is based on Control Groups, it is very important to save the project file if you want to review or modify the group configuration later. Project information is stored only on the PC, where the project file is saved.

The tuning itself is stored in the cabinets, amplifiers, or processors. This means that if you disconnect the PC, the system will continue to operate with the last applied settings. However, if you want to make further modifications to the Control Groups, you must reopen the original project file, as the Control Group configuration cannot be recovered from the devices.

If you open a device with Control Group parameters assigned from a different project, and those parameters differ from the Control Group settings in the current project, the following message will appear.

To copy the Control Group configuration from the current project to the device's internal settings, click Yes. Please note that doing so will overwrite the device's existing Control Group configuration, and the previous Control Group settings assigned to that cabinet will be lost.





To save a project, click the indicated button. Please note that OCS creates several files when saving a project, and all of them are required to reopen the project correctly. It is recommended to save each project in a dedicated folder to ensure that all associated files remain together.


LYNX
pro-audio
20 30 40 60 80 100 200 300 400 600
Frequency
ON HP
20 Hz
12 dB/o
Butterw
ON 1
61 Hz
5,9 dB
0,7 Q
1,89 BW
ON 2
110 Hz
0,0 dB
0,7 Q
1,01 BW
ON 3
555 Hz
-4,6 dB
0,7 Q
1,66 BW
Hz
dB
Q
BW