



Working With Apogee Hardware

Logic Express offers a dedicated control panel that allows you to directly configure Apogee’s Duet and Ensemble hardware.

Note: The control panel and associated menu entries are only available if the supported Apogee hardware is installed correctly in your system. For further information on installing the Apogee device, please refer to the manuals supplied with your Apogee device.

To open the Apogee control panel:

- Choose Options > Audio > Open Apogee Control Panel from the main menu bar.

The Apogee control panel automatically displays the parameter set that applies to your connected audio device.

See the following section for details on the Ensemble control panel. See “Duet Control Panel” on page 6, for a full description of all Duet parameters.

Ensemble Control Panel

The Ensemble control panel offers two parameter types: Global and Unit.

- Global parameters are only relevant if more than one Ensemble device is connected to your system; they define how several devices work together.
- Unit parameters configure individual hardware units.

Global Parameters

The Global parameters at the top of the Apogee hardware control panel define how multiple Apogee Ensemble hardware devices work together.



Unit Selection

The Unit Select menu defines the hardware device (when multiple units are connected). The parameters of the selected device are displayed in the Unit tabs below.

Activate the Identify Unit checkbox (next to the Unit Select menu) to illuminate all LEDs on the corresponding hardware interface.

Loop Sync

Loop Sync facilitates the proper clocking of multiple units. It allows simple re-configuration of clock signals, accommodating non-synchronous digital inputs on all connected units.

Choose the hardware unit that should be used as the clock master from the Loop Sync Master menu. Once a device is designated as master, all other units are automatically locked to its word clock.

Enabling the Disable Loop Sync checkbox allows you to manually adjust synchronization settings.

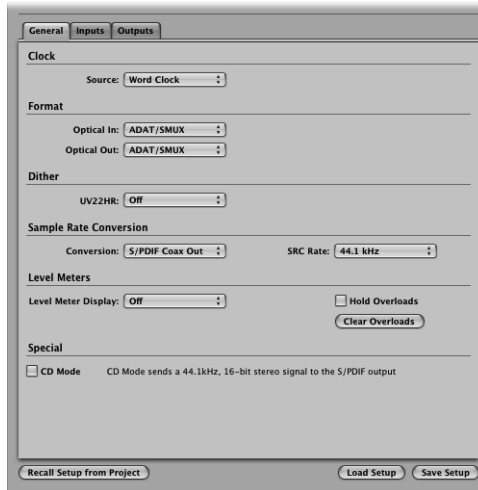
Note: Multiple Apogee device configuration (and interaction between Apogee devices) is determined by the Apogee driver version. Please refer to the information included with the Apogee driver or device for details.

Units Parameters

The Units parameters determine the behavior of individual hardware units in your system. They are spread over three tabs: General, Inputs, and Outputs.

General Tab

The settings in this tab control a variety of features, such as the clock source, UV22HR dithering algorithm, and level meter behavior.

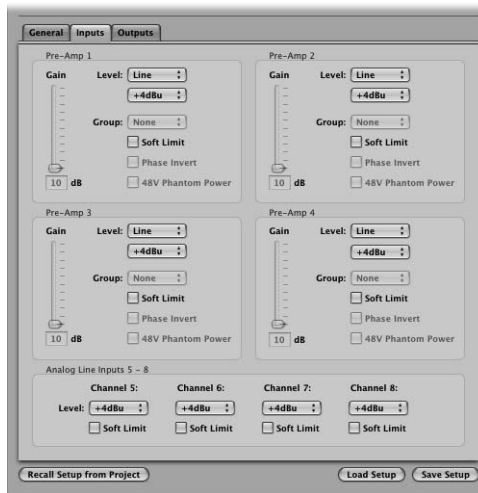


- *Clock Source menu*: Sets the clock source for the chosen unit. Options are: Internal, Optical, Coax, and Word Clock.
- *Format section*: These settings determine the format of the optical input and output channels. Options are: ADAT/SMUX and S/PDIF.
- *UV22HR*: This specifies the target signal path for the UV22HR dithering algorithm. Options are: Off, Analog In 1–2, Analog In 3–4, Analog In 5–6, Analog In 7–8, Optical In 1–2, Optical In 3–4, Optical In 5–6, Optical In 7–8, S/PDIF In, and S/PDIF Out.
- *Sample Rate Conversion section*: The Conversion menu allows you to enable sample rate conversion for the S/PDIF Input or Output signal path. If you decide to engage sample rate conversion on the S/PDIF Out channel, you can set the desired destination sample rate in the SRC Rate menu (beside the Conversion menu).
- *Level Meters section*: The Level Meter Display menu determines the type of metering displayed by your units. Options are: input level, output level, or no signal at all. If you activate the Hold Overloads checkbox, your hardware displays overloads permanently. Clicking the Clear Overloads button (alongside the Level Meter Display menu) resets the overload LEDs of your meters.

- *CD Mode checkbox*: Activating this checkbox engages CD mode, which sends a 44.1 kHz, 16-bit stereo signal to the S/PDIF output, regardless of the input. In effect, activating this checkbox automatically switches the Conversion menu to S/PDIF Out, the SRC Rate menu to 44.1 kHz, and the UV22HR menu to S/PDIF Out. If you manually change any of these automatically set parameters, the CD Mode checkbox is instantly disabled.

Inputs Settings

This tab is used to configure the inputs of your Ensemble hardware. The tab contains four identical parameter sets for mic inputs 1 to 4, and a parameter section for line inputs 5 to 8.



Inputs 1 to 4

Inputs 1 to 4 feature built-in pre-amps. These can be configured individually via the four identical sets of Pre-Amp parameters.

- *Level menu*: This menu enables you to switch the respective channel between mic and line inputs. If you choose the Line option, the +4 dBu and –10 dBV options (shown in the pop-up menu below) are used to set the reference level of the line input. All mic related settings—Gain, Group, 48V Phantom Power, and Phase Invert—are dimmed.
- *Gain slider*: Sets the gain level of the chosen input (only available for mic channels).
- *Group menu*: The gain controls of the mic inputs can be assigned to a group. Groups allow you to link the Gain sliders of the mic inputs. Changing the Gain slider of any mic input assigned to a group also changes the Gain sliders of all mic inputs in this group. Individual gain relationships (relative levels between mic inputs)—at the time the Gain sliders were assigned to the group—are retained. Options are Group 1, Group 2, and None. The Group menu is only available to channels used as mic inputs.
- *Soft Limit checkbox*: Activate to apply Apogee’s soft limiting to the inputs.

- *Phase Invert checkbox*: Activate this checkbox to reverse the phase of the input signal (only available if the channel is used as a mic input).
- *48V Phantom Power checkbox*: Click to activate a 48 volt phantom power supply for inputs 1 to 4. This checkbox is only available if the channel is used as a mic input.

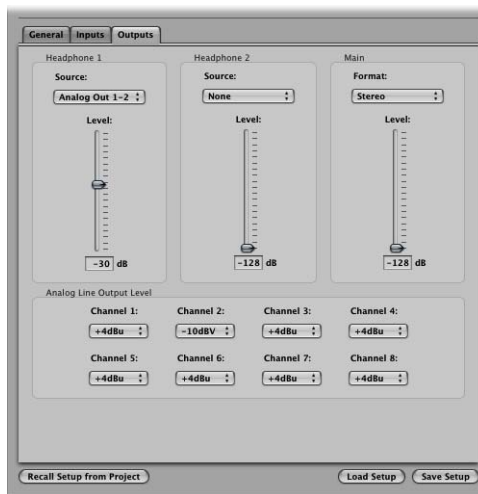
Line Inputs 5 to 8

The Analog Line Input section offers the following parameters for line inputs 5 to 8:

- *Level menu*: Sets the input level of line inputs 5 to 8. Options are +4 dBu and –10 dBV.
- *Soft Limit checkbox*: Activate to apply Apogee’s soft limiting to the analog line inputs.

Outputs Settings

This tab is used to configure the outputs of your Ensemble hardware.



Headphone Output 1 and 2 Parameters

These options configure the output signal for the headphone outputs.

- *Source menu*: Determines which output pair is sent to the respective headphone output. Options are: Analog Out 1–2, Analog Out 3–4, Analog Out 5–6, Analog Out 7–8, Optical Out 1–2, Optical Out 3–4, Optical Out 5–6, and Optical Out 7–8, and S/PDIF Out.
- *Level slider*: Sets the level of the respective headphone output.

Main Parameters

The Format menu allows you to choose the output channels that you want to control with the Main Output Level slider. Values are Stereo, 5.1 Surround, and 7.1 Surround.

Analog Line Outputs

Choose either the +4 dBu or –10 dBV option in the respective Channel menu to determine the reference level—for each of your eight analog line outputs.

Setup Buttons

The bottom of the Apogee hardware control panel offers three buttons that allow you to save and load your configuration settings.

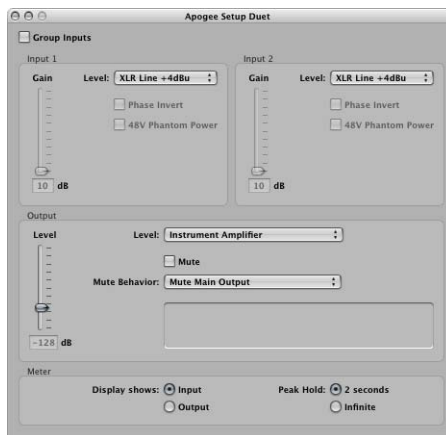


- *Recall Setup From Project*: Loads the configuration saved with the project.
- *Load Setup*: Opens a file selector box, allowing you to load a stored configuration.
- *Save Setup*: Opens a file selector box, allowing you to save the current configuration.

Duet Control Panel

The Duet control panel offers three parameter types: Global, Input, and Output.

- *Global parameters*: Use to configure your Duet interface.
- *Input parameters*: Use to configure the inputs of your Duet interface.
- *Output parameters*: Use to configure the outputs of your Duet interface.



Global parameters

- *Group Inputs checkbox*: Click to link the Gain sliders for the two inputs.
- *“Display shows” buttons*: Choose which level is shown by the level meter on your Duet interface.
- *Peak Hold button*: Use to determine the amount of time that peaks are held on the Duet display.

Input parameters

- *Gain slider*: Allows you to set the amount of gain applied to the input signal when instrument or XLR Mic is chosen in the Level menu.
- *Level menu*: This menu enables you to switch the respective channel between mic, instrument, and line inputs. You can choose between two line options, +4 dBu and –10 dBV, when setting the reference level of the line input. All mic and instrument related settings—Gain, 48V Phantom Power, and Phase Invert—are dimmed. The instrument input setting activates the 1/4 inch input. The mic and line settings activate the XLR input.
- *Phase Invert checkbox*: Activate this checkbox to reverse the phase of the input signal (only available if the channel is used as an instrument or mic input).
- *48V Phantom Power checkbox*: Click to activate a 48 volt phantom power supply for the inputs. This checkbox is only available if the channel is used as a mic input.

Output parameters

- *Level slider*: Sets the output level. If you set the Output Level menu to Instrument Amplifier, this slider has no effect.
- *Level menu*: Allows you to choose which output you would like to use. You can choose between Line –10 dBV and Instrument Amplifier.
- *Mute checkbox*: Mutes the output chosen in the Mute Behavior menu.
- *Mute Behavior menu*: Allows you to choose which output is muted by activating the Mute checkbox. Choose the Toggle Main Output/Headphones setting to alternate between muting the main output and the headphone output—by using the Mute checkbox.