

Grace Design

# m108 GUI Control Software Manual

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# Getting Started

## Introduction

The m108 Control Software application allows for control of up to 12 m108 preamplifiers using the Ethernet control port on the m108. Each preamplifier in the system will have a dedicated control panel for operating the microphone preamplifiers, ADC, and clocking parameters. The control application allows for the creation of channel groups as well as saving and recalling presets. The application runs under Windows (7,8.1,10) and Mac OS (10.11). For control of the m108 via Android or iOS use the m108 web interface.

## Installation

To install the application, navigate to <http://www.gracedesign.com/support/support.htm> and download the correct version for your operating system.

### Windows Installation

Locate the download and double-click the file. Follow the directions in the installer to complete installation.

### OSX Installation

Locate the downloaded .dmg file and double-click to mount the disk image. Once the file is open, drag the application to the Applications folder.

## Connecting to your preamps

To connect to the preamps, first ensure that:

- Each preamp has a unique ID
- Each preamp is set to Ethernet remote control
- Each preamp has a unique IP Address

Then, open the application. The application will open to the setup page.

1. In the Preamp Management section, press “+” to add a preamp to the menu.
2. For each preamp, type the IP Address into the IP Address field and press enter to confirm the entry. The “ACT” or “Active” indicator will turn green if the application was able to find an m108 at the given IP Address.
3. Once all IP Addresses have been found, click “Connect”, found at the bottom of the window.
4. To view the preamp control page, click on the “Preamps” tab at the top of the window.

## Controlling your preamps

In the preamps view, up to 12 preamps can be displayed, two at a time. For screens with 1600x900 resolution or greater, all eight channels of both preamps will be visible. For screens narrower than 1600 lines of resolution, the channels will be horizontally scrollable. For screens with fewer than 900 vertical lines of resolution, only one preamp will be completely visible at a time. To switch between visible preamps, simply use the scroll wheel or the arrows located on the left side of the screen. An example of a single preamp is shown below.



# Navigation and Setup

## Navigation Bar

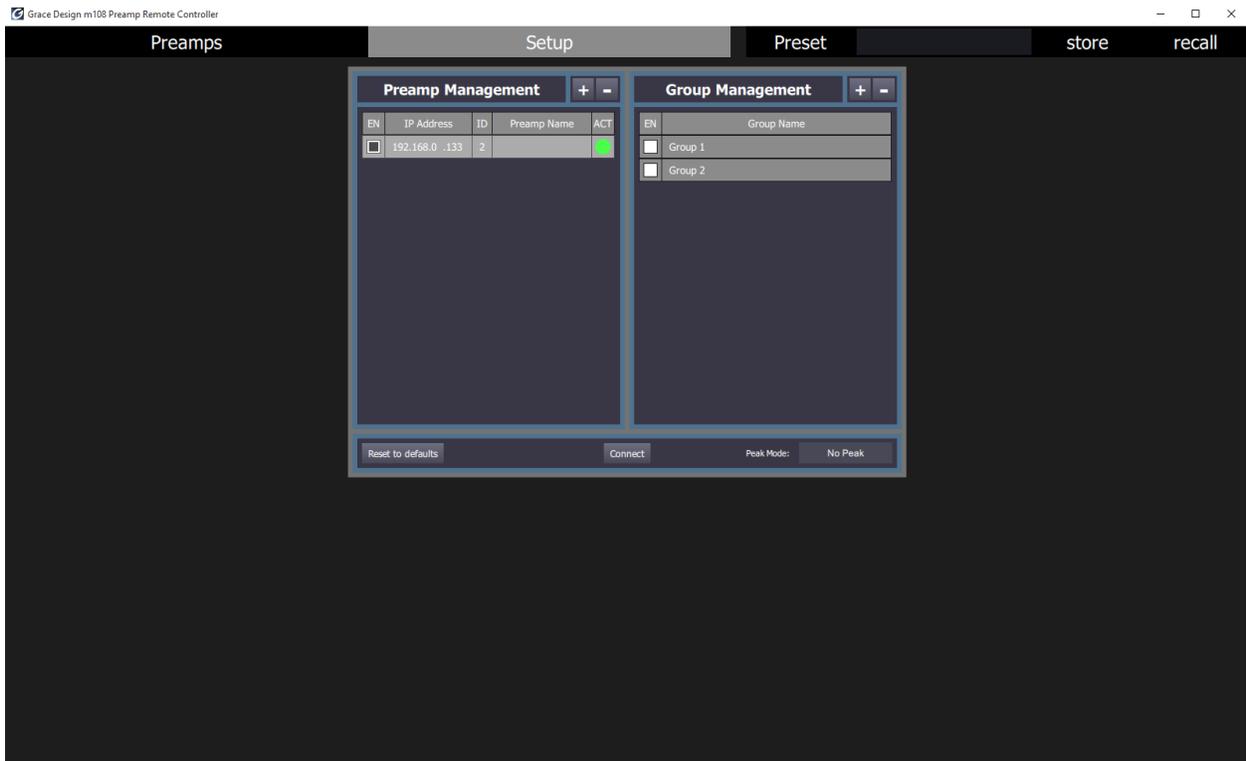


The navigation bar, found at the top of the application, is used for changing between setup and preamp views, as well as saving and recalling presets.

## Changing Views

To change views, click the “Preamps” or “Setup” buttons located on the navigation bar.

## Setup View

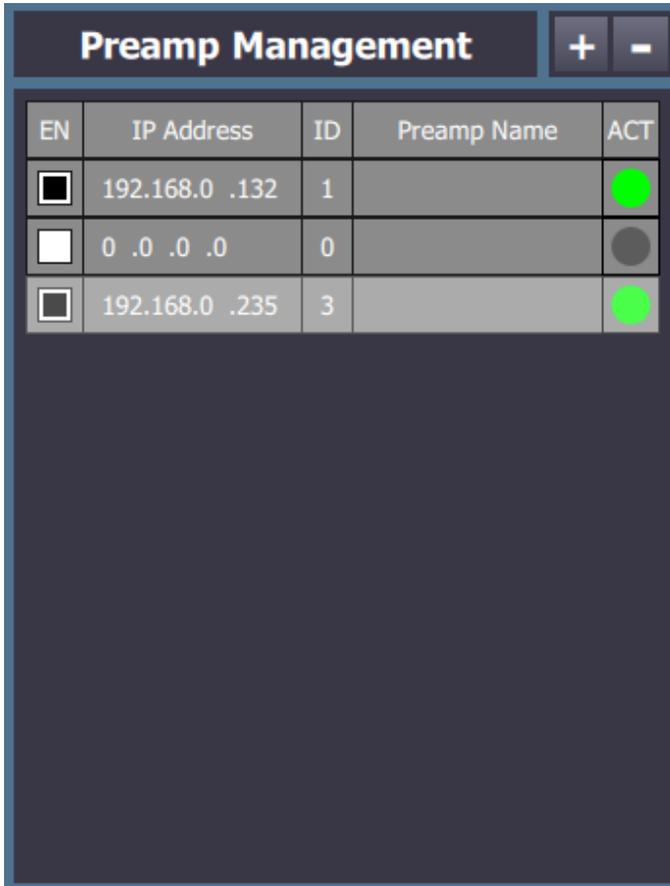


This is the setup pane. From here, the user can set up his system by adding/subtracting or enabling/disabling preamps, as well as adding/subtracting logical groups or enabling/disabling logical groups. The preamps can also be reset to factory defaults and the meter peak mode can be selected.

There are three subpanes in this view: Preamp Management, Group Management, and Utility.

## Preamp Management Pane

In the preamp management pane, the user may add/remove and enable/disable preamps in the system.



EN	IP Address	ID	Preamp Name	ACT
<input checked="" type="checkbox"/>	192.168.0 .132	1		<span style="color: green;">●</span>
<input type="checkbox"/>	0 .0 .0 .0	0		<span style="color: gray;">●</span>
<input checked="" type="checkbox"/>	192.168.0 .235	3		<span style="color: green;">●</span>

### Adding a Preamp

To add a preamp, click the “+” button in the upper right corner of the pane. This will cause a new preamp row to appear in the panel. Then, enter the unit’s IP Address, found on the *Ethernet setup* submenu on the m108 control panel. When the IP Address has been entered, press Enter to confirm entry. If the controller detects the preamp, the “ACT” indicator should turn green and the preamp ID and name should be added to the preamp row. The “EN” checkbox should automatically be checked. If the indicator does not turn green, the controller software was unable to detect the preamp at the specified IP Address.

### Removing a Preamp

To remove a preamp, first click on the row to be removed. Then press the “-” button in the upper right corner of the pane. The selected preamplifier will be removed from the list.

Note that the last preamp cannot be removed from the list.

### Enabling/Disabling a Preamp

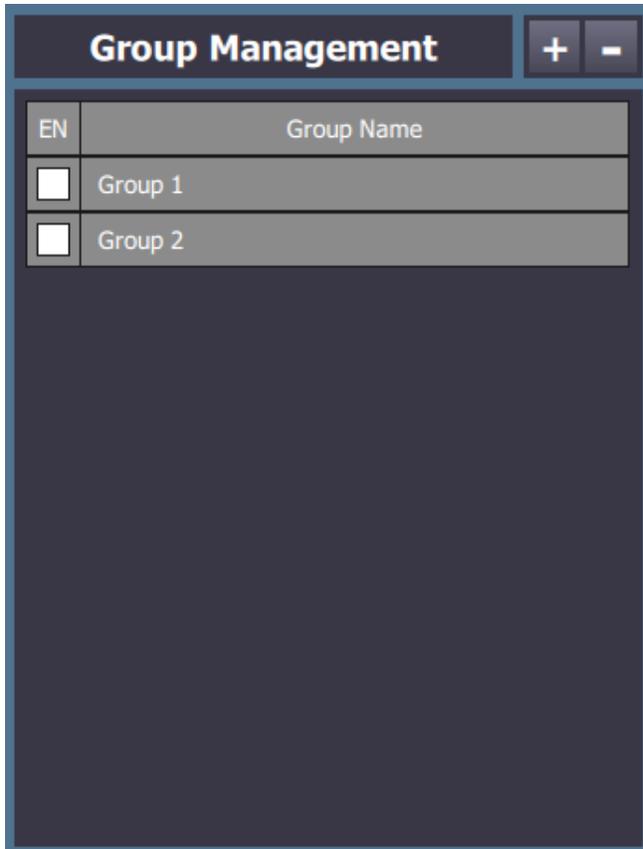
To enable or disable a preamp so that it is not displayed in the control interface, simply check or uncheck the “EN” checkbox.

### Writing changes

After changes have been made, the “Connect” button in the Utility pane must be pressed before the changes become active.

## Group Management Pane

In the group management pane, the user may add/subtract and enable/disable logical groups. At this time, the group names are limited to "Group #" where # ranges from 1-12.



### Adding a group

To add a group, click the "+" button in the upper right corner of the pane.

### Subtracting a group

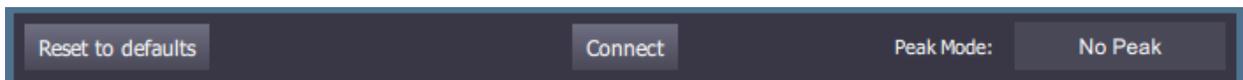
To subtract a group, click the "-" button in the upper right corner of the pane.

### Enabling/Disabling a group

To enable/disable a group globally, check/uncheck the "EN" checkbox. This will set all channels with the specified group to active or inactive.

## Utility Pane

The Utility pane contains general utility functions, such as connecting to preamps, resetting preamps to factory default, and peak mode selection.



### Peak Mode

There are three peak modes for the meters: No Peak, Peak Hold, and Peak Decay.

### Reset to Defaults

This button sets all connected and enabled preamps to factory defaults.

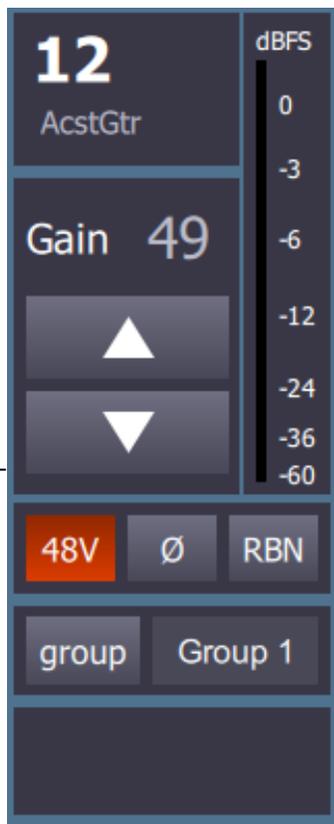
## Preamp View

There are three main sections: Channels, Status, and ADC.



## Channels

The channel strip is the primary interface for the preamp. It allows direct control over an individual channel and provides basic channel metering.



### Setting Gain

There are two ways to set the gain. The first is the up and down arrows. The arrows can be pressed to Increment/Decrement the gain by one, or pressed and held to trigger repeated changes. The second option is direct entry. To enter the gain, click on the gain value and type in the value. Press Enter to finish editing. Accepted values are -6, 2-69.

### Changing Channel Name

To change the channel name, click on the name field and type the desired gain. Press Enter to finish editing. The changes will not be reflected on the preamp until editing is finished. Accepted characters are A-Z, a-z, 0-9, and `_`. There are eleven character spaces available.

### Enabling Phantom Power

To Enable/Disable phantom power, click on the “48V” button. The button will turn red when phantom power is active. Phantom power cannot be enabled when ribbon mode is active.

### Phase Inversion

To invert the phase, click on the “∅” button. The button will turn yellow when the phase inversion is active.

### Ribbon Mode

To Enable/Disable ribbon mode, click on the “RBN” button. The button will turn blue when ribbon mode is active. Turning on ribbon mode when phantom power is enabled will turn phantom power off.

### **Group Enable**

To put a channel into/remove a channel from a group, click the “Group” button. The button will turn green when the group is active. When this button is active, gain changes on this channel will happen on other channels active in the same group.

### **Group Select**

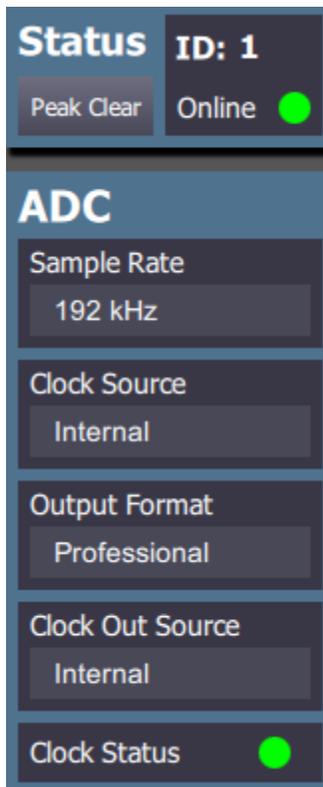
To select which group a channel belongs to, click on the group name. A drop down menu with each of the group names will appear. Click on the desired group to change the group the channel belongs to.

### **Scribble Strip**

At the bottom of the channel strip is a small scribble strip for making notes specific to the channel. Text entered into this box does not wrap.

### **Clearing Meter Peak/Over**

To clear a meter peak or over indicator, click anywhere in the meter. To clear peaks on all channels on that preamp, click on the “Peak Clear” button located in the status pane.



## Status

The status pane indicates Preamp ID, online status, and ADC settings.

### Online Status

When the preamp is online, the indicator will be green. If the indicator is not green, the preamp is offline.

### Preamp Peak Clear

This button clears the peaks/overs on every channel for that preamp.

## ADC

### Changing Sample Rate

To change the sample rate, click on the current value. A drop-down menu will appear with the available sample rates. Click the desired sample rate to set the sample rate.

### Changing Clock Source

To change the clock source, click on the current value. A drop-down menu will appear with the available clock sources. Click the desired clock source to set the clock source.

### Changing Output Format

To change the output format, click on the current value. A drop-down menu will appear with the available output formats. Click the desired output format to set the output format.

### Changing Clock Output Source

To change the clock output source, click on the current value. A drop-down menu will appear with the available clock output sources. Click the desired output source to set the clock output source.

### Clock Status

If the ADC input clock PLL is locked, the indicator will be solid green. If no lock is detected, the indicator will blink.

## Using Presets

Presets are a way of saving a system configuration. When a preset is saved the entire system configuration, with the exception of preamp ID and name, will be saved. For each preamp, all channel settings – gain, phantom power, phase, ribbon mode, group mode, name, scribble strip – and all ADC settings are saved. Upon recall, the previous IP address will be displayed and the program will attempt to reach the preamp at that address. If the preamp is found, the name and ID will be loaded and the “ACT” indicator will turn green. If not preamp is found, the IP address should be updated or the preamp should be excluded from the system by unchecking the “EN” checkbox. Note that the preset functionality in this application is separate from the preset functionality on the preamp front panel.

## Storing a preset

1. Click “store” in the upper right corner of the window.
2. In the file dialog that opens, navigate the desired preset storage location.
3. Type the preset name in the file name box.
4. Press “Save”

## Recalling a preset

1. Click “recall” in the upper right corner of the window.
2. In the file dialog that opens, locate the desired preset file, select it, and press “open”.
3. Verify that all preamplifiers were found by checking the “ACT” indicator in the Preamp Management section for each preamp.
4. If the indicator is not green, verify the IP address is correct and re-enter the IP address.
5. To enable a subset of the total number of preamps, check/uncheck the “EN” checkbox to enable/disable specific preamps.
6. Click “Connect” and navigate to the preamps page.

## Using Groups

Groups in the control application allow linked gain changes between channels, even on different preamps. This behavior is separate from the group mode on the preamp front panel. There are a maximum of 12 groups available.

## Grouping Channels

1. Ensure that all of the channels to be grouped have the same group name selected.
2. If a channel does not have the correct group selected, click on the group name to open the drop-down menu and select the proper group.
3. Click the “group” button on each channel to put it in the group. When the channel is active in the group, the “group” button will be green.
4. All channels with a group selected can be enabled simultaneously via the “EN” checkbox in the Group Management section of the Setup view.

## Adding/Subtracting Groups

1. To add a group, press the “+” button on the Group Management section of the Setup page. A group with the name “Group #”, where # is one greater than the number of the previous group, will be added to the list.
2. To subtract a group, press the “-” button on the Group Management section of the Setup page. The highest numbered group will be removed from the list.

## Release Notes

Version 1.0

- Known Issues
  - Occasional network lag may cause commands to buffer and transmit late. Mitigated by using wired local connection.
  - Meters receive null packets occasionally causing “blips” in the meter display.
  - In preamp management pane, names of preamps may not always display properly until “connect” button is pressed.

Rev.	Description	Date	Initials
A	Initial release	9/20/2016	JJL