



Integration Note

Manufacturer:	Nuvo
Model Number(s):	Grand Concerto
Core Module Versions:	Software 4.0 Build 1452.0 Rel or later 6.0.236 and newer includes zone controller integration only, no virtual keypads for source control.
Comments:	Nuvo Grand Concerto FW v2.56, HWv00; M3 Server v1.60, iPod v1.53
Document Revision Date:	1/17/2013

OVERVIEW AND SUPPORTED FEATURES

THE FOLLOWING FEATURES ARE SUPPORTED:

Traditional Whole-House Audio: The Grand Concerto six-source eight-zone Audio Zone Controller has keypads in each zone that control the volume and source.

Support for IR: The Grand Concerto has IR outputs that can provide signals to each of the sources, enabling transport control (Play, Pause, Stop, etc) for equipment that has IR control. The Grand Concerto has a built-in library of existing codes, as well as the ability to learn codes. These codes are supported through the Virtual Concerto ControlPad in the **g!** system.

Support for AM/FM Radio: The Nuvo T2 AM/FM/XM tuner is supported either through direct two way serial communication using the ELAN tuner interface or through the NuvoNet network using the interface from a Virtual Concerto ControlPad in the **g!** system.

Display: The Concerto ControlPad keypads have a display that normally shows the name of the source, volume level etc. When playing audio from the **g!** system, the track information is displayed.

Multiple Chassis: The Nuvo Expansion Chassis is supported for a total of 16 audio zones.

THE FOLLOWING FEATURES ARE NOT SUPPORTED:

Virtual Keypads for source control (v6): source control via virtual keypads is not supported in version 6.0.

Virtual Concerto ControlPad Limitation: The Nuvo Grand Concerto systems are designed for a maximum of 20 Nuvo ControlPads. The ControlPads are typically addressed to a zone number 1 thru 16. **g!** Virtual ControlPads start at address 20 and are dynamically addressed down from 20 as required. If there is an address conflict between a **g!** Virtual ControlPad and a Nuvo physical ControlPad there will be issues with control from those ControlPads. In a typical 16 zone system this means that there can only be a maximum of 4 **g!** Virtual ControlPads active at any one time.

IR Through Custom Interfaces: The **g!** system cannot send IR commands to the Grand Concerto through Event Mapping. IR can only be sent using the Virtual Concerto ControlPad.

OSD/HR2/TS2 Controllers: The **g!** software On-Screen Display, HR2 and the TS2 **WILL NOT FUNCTION CORRECTLY** with this zone controller's source devices and is specifically **NOT** supported.

Source control in an "output from zone" configuration: virtual keypads for source control will not work unless they are directly in a Russound zone. They will not work when a zone from Russound is configured as a source in another zone controller.

Any feature not specifically noted as supported should be assumed to be unsupported.

VIEWER INTERFACE FOR NUVONET SOURCES

The interface shown on the Viewer for sources to a Grand Concerto depends on the source type.

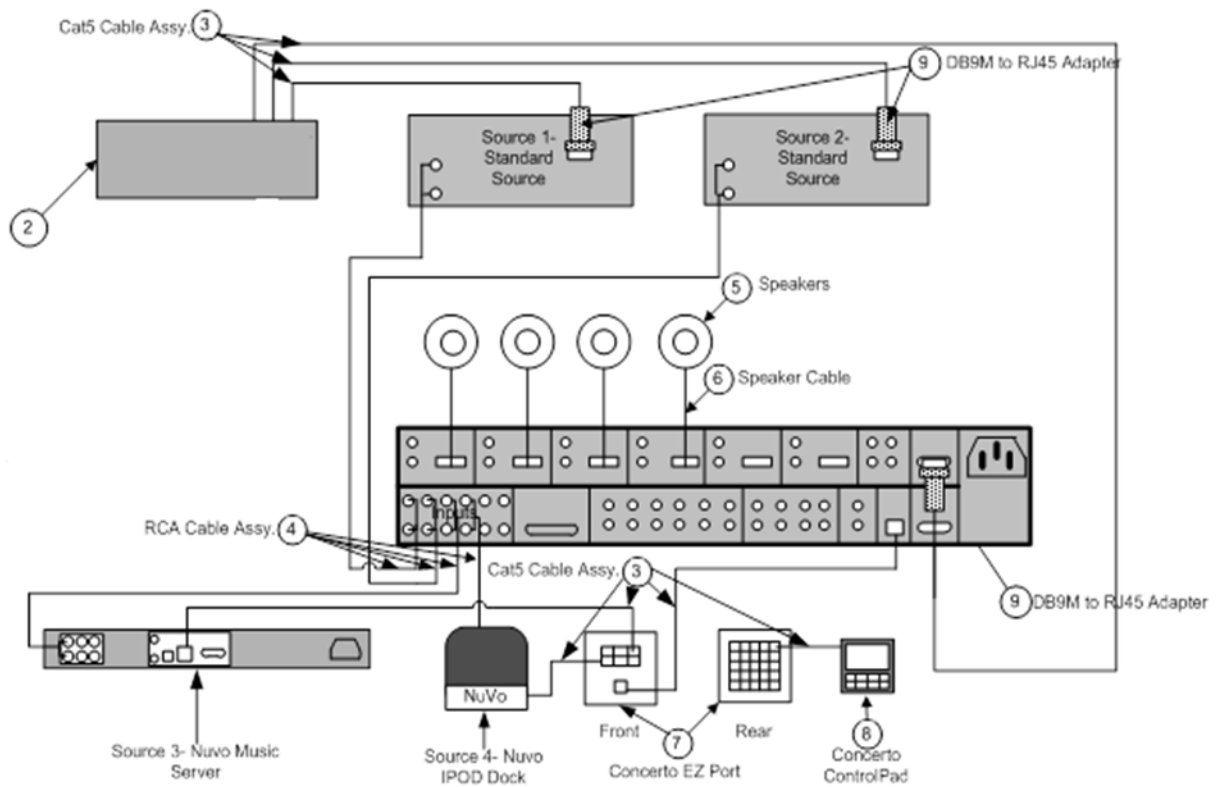
- For Nuvo sources with standard two-way serial control, the **g!** interface for the device will be displayed.
- For NuvoNet sources not controlled by RS-232 connections such as the NV-M3 3-Source Music Server or the NV-RIPD IPOD dock, the display will resemble the Concerto ControlPad interface and two-way feedback will be provided by the Grand Concerto.

Note: Use of a virtual keypad when connecting to the Nuvo via SerialBrick is not supported at this time.

INSTALLATION OVERVIEW

1. During the rough-in phase, install speaker wire for the speakers and Cat5 cable for keypads, in each zone.
2. Also during the rough-in phase, run a Cat5 wire from the location of the Grand Concerto back to the Network Assembly of the **ELAN** system for RS-232 communications. Refer to the **RS-232 Connection Options** Integration Note for other options.
3. Mount the speakers and keypads in each zone, and install the Grand Concerto and the sources.
4. Program the Grand Concerto using the NV-18G NV-E6G Configurator. This includes setting the number of sources, the names and input numbers for each source, and the zones. See the **Grand Concerto Programming** section for more information.
5. Test the entire Grand Concerto system to ensure that all the sources play correctly in every zone, and that the keypad buttons behave correctly from the keypads.
6. If the system includes one or more NuvoNet device (such as the NV-M3 Music Server), they should be connected to the Grand Concerto with NuvoNet according to the standard Nuvo procedure.
7. Connect the **g!** system to the Grand Concerto system electrically. See the wiring diagrams for more information.
8. Configure the **g!** system for the Grand Concerto and confirm communication between the Grand Concerto and the **g!** system controller.
9. Test the system by changing sources in a zone to confirm the correct source plays, and by testing the **g!** interface transport control and media server controls.

CONNECTION DIAGRAMS



BILL OF MATERIALS

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
2	gl System Controller	ELAN	Various (e.g. HC 12)	RS-232	RJ-45 Female	
3	Cat5 Cable Assy.	Installer	N/A	RS-485, RS-232	RJ-45 Male X P Punch Down	
4	RCA Cable	Any	N/A	Analog	RCA X RCA	
5	Speakers	Any	N/A	Analog	Wire	
6	Speaker Cable	Any	N/A	Analog	Wire	
7	Nuvo Concerto EZ Port	Nuvo	NV-18GEZP	NuvoNet	RJ-45 Male X RJ-45 Male	
8	Nuvo Concerto ControlIPad	Nuvo	NV-18GCP	NuvoNet	RJ-45 Male X RJ-45 Male	
9	DB9M to RJ45 Adapter	ELAN	HA-CB-307	RS-232	DB-9 Male X RJ-45 Female	

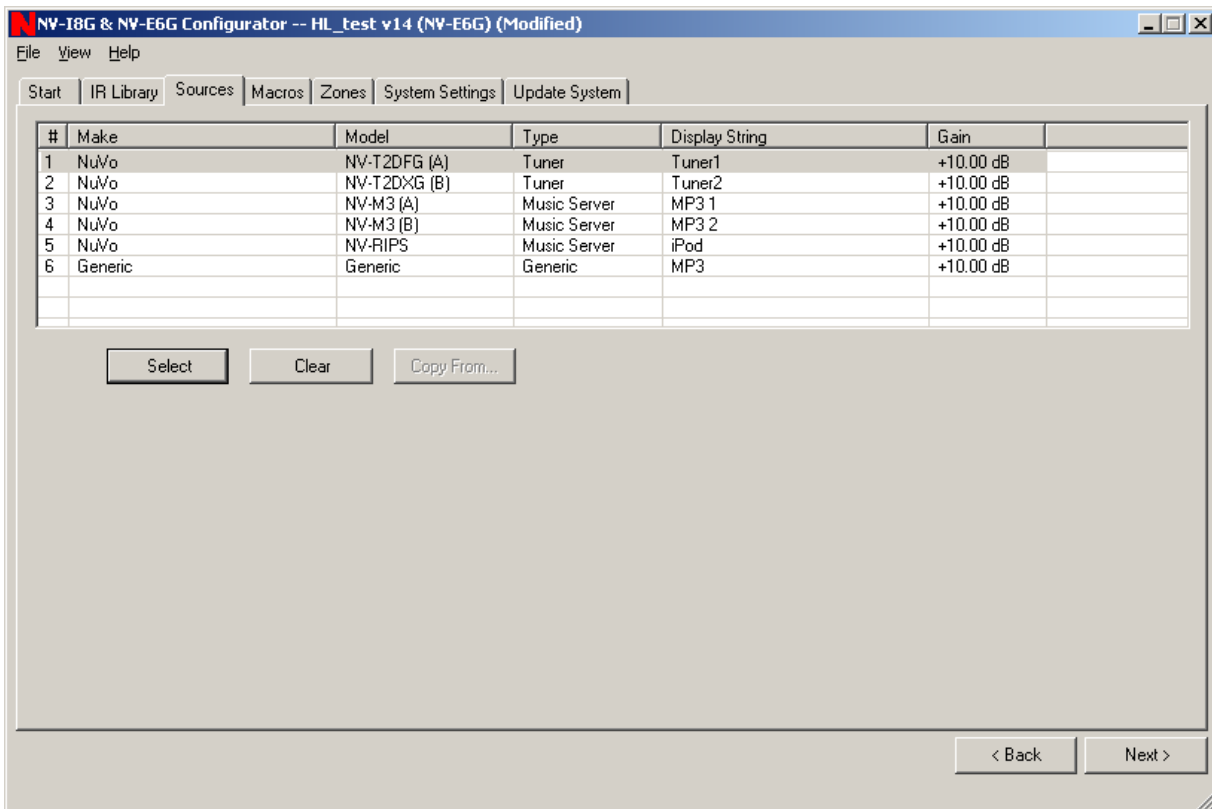
GRAND CONCERTO PROGRAMMING

Once the equipment is installed and connected you must program the Grand Concerto using the Nuvo Configurator Software according to Nuvo guidelines. Special steps that relate to **g!** are provided below.

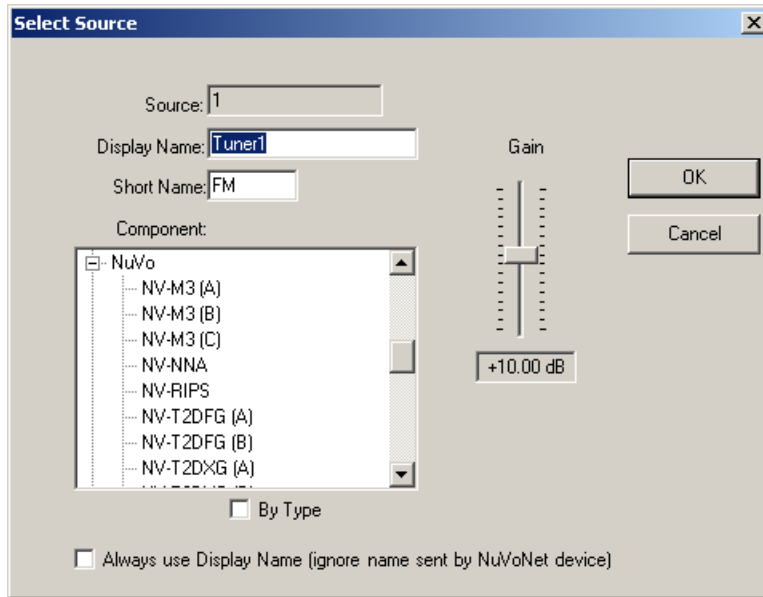
Note: The **g!** software will not read source and zone information from the Grand Concerto. Source and Zone information must still be added manually in the **g!** Configurator.

SOURCE INPUTS:

The source input devices set up in the Nuvo Grand Concerto Configurator must match the Grand Concerto's source set up in the **g!** Configurator, as well as the physical connections to the Grand Concerto itself.



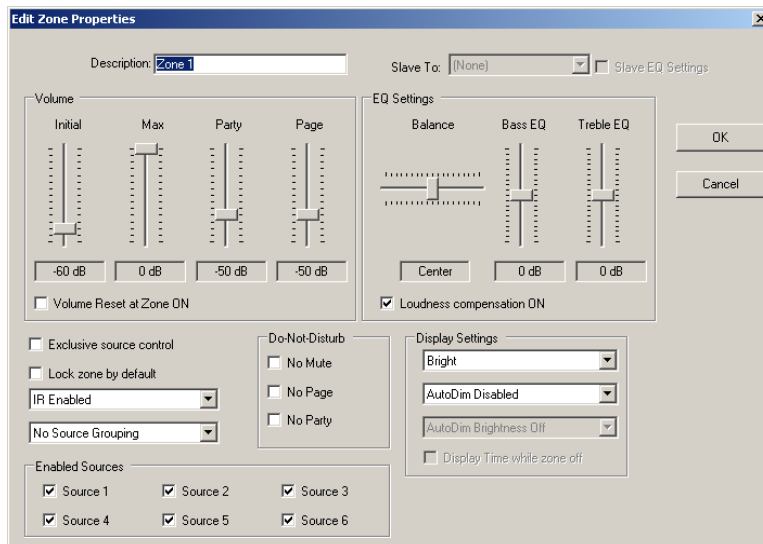
Add sources to the Grand Concerto in the Nuvo software by choosing the source tab, then selecting the input number and clicking the select button.



Fill in the Display Name and Short Name for the source, then choose the nearest match for the component from the component list. The Gain can also be set here for input level matching. Click OK, and repeat for each additional source.

ZONE OUTPUTS

Configure the Zone Outputs in the Nuvo software by selecting the Zones tab, then choose the same number to be configured and click the “Edit” button.



Fill in the Zone Description and make any adjustments to the sound and keypad levels that are necessary.

CONFIGURING THE g! SOFTWARE

SETTING UP THE GRAND CONCERTO:

In the g! Configurator, select the Media tab. Add the Communication Device for the Grand Concerto using Serial Port/ Standard Connection. Add the Grand Concerto itself as an Audio Zone Controller and select the Communication Device added in the last step.

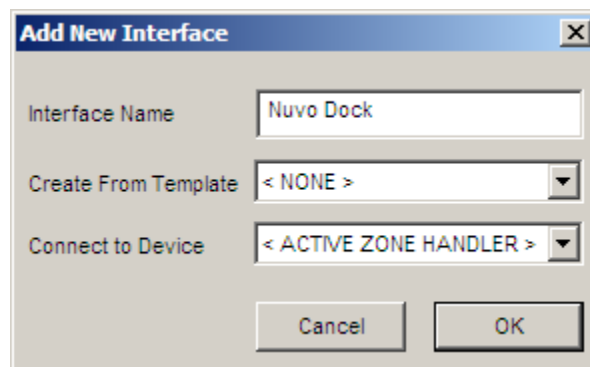
SETTING UP NUVO NET DEVICES

Certain Nuvo Devices, such as the NV-M3 Music Server and the NV-RIPD IPOD dock, communicate directly with the Grand Concerto using NuvoNet, bypassing the **g!** system. These devices can still be controlled and provide the **g!** software with feedback by configuring **g!** to emulate an Grand Concerto ControlPad. Follow the steps below to set up this feature. These devices will not use the standard **g!** interfaces. The emulation imitates a NuvoNet Keypad.

Note: When setting up keypads to control Nuvo sources, you must create a keypad for **each** source.

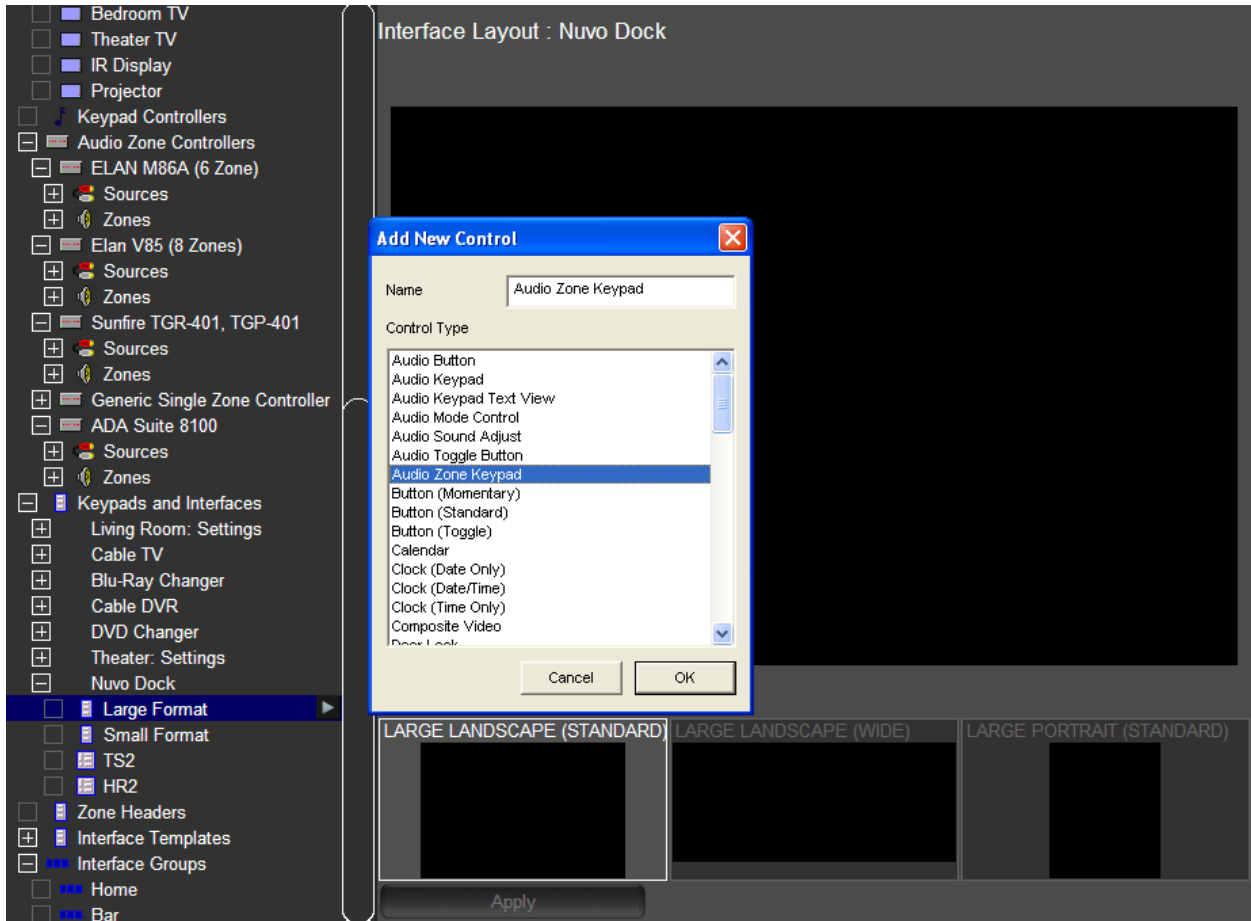
ADDING A KEYPAD:

Add the Grand Concerto ControlPad in the Media tab by right clicking “Keypads and Interfaces” and choosing the “Add New Interface” option. Type a name for the keypad in the space provided. Leave “Create from Template” set to <NONE>, and choose <ACTIVE ZONE HANDLER> from the “Connect to Device” drop-down.

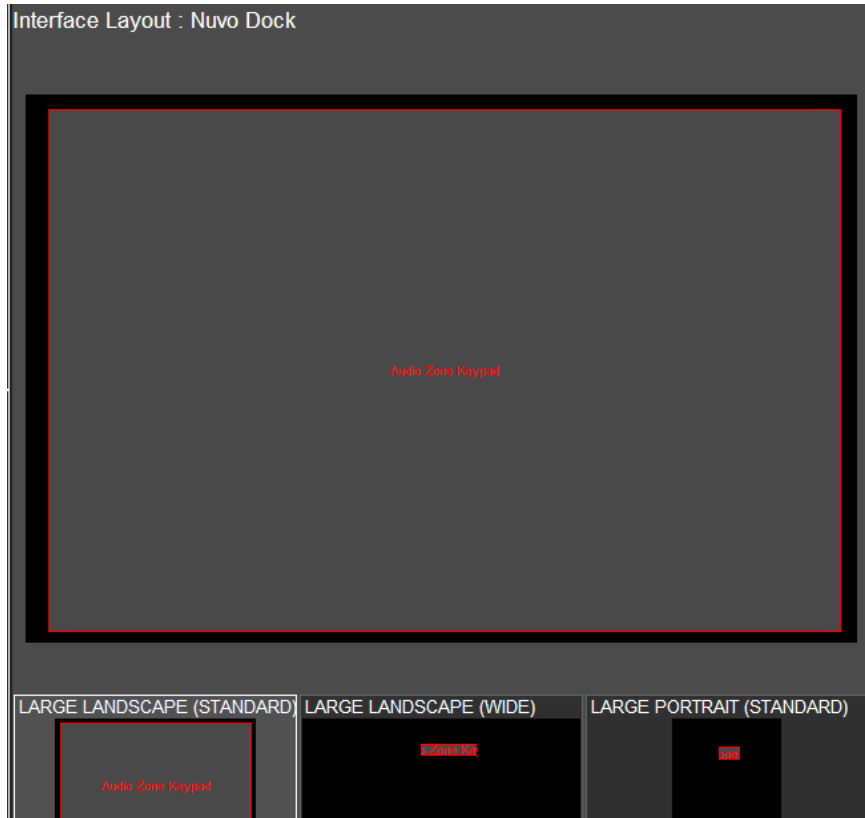


Click the “+” to the left of the new keypad interface to expand the view and show the available layouts. Click the Large Format> Large Landscape(Standard) option to display the blank interface page.

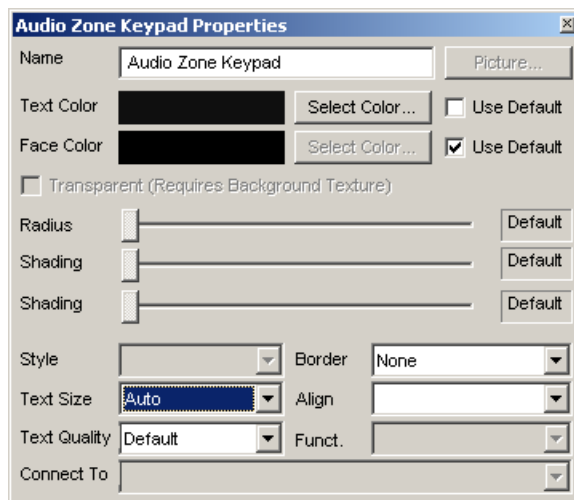
Right-click anywhere in the black field on the right and choose “Add New Control”. From the list, choose “Audio Zone Keypad”:



Click the small blue box that was added to turn the boarder yellow and allow resizing. Stretch the edges of the box to mostly fill the page. As always, leave a slight border around controls on a custom interface.



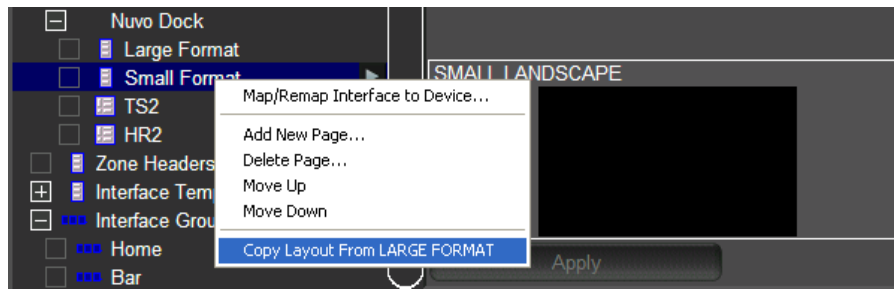
In the Audio Zone Keypad Properties window, select the text size drop down and choose “Auto” from the top of the list. Copy the completed interface to all other resolution settings that will be used in the system.



Note: The Audio Zone Keypad can be copied into other formats to appear on touch screens using other resolutions. To copy the keypad to another “Large Format” resolution, simply right-click in the thumbnail at the bottom of the screen and select **Copy Layout**. Then, click the thumbnail for the new resolution, right-click and select **Paste Layout**.

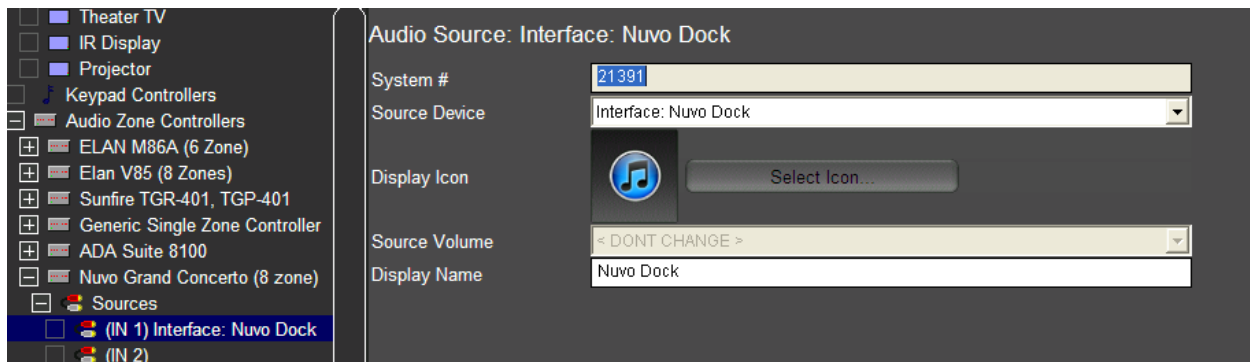


To copy the keypad to another format, right-click the new format type in the system tree, and then select COPY LAYOUT FROM...



Since the Audio Zone Keypad automatically maps to Active Zone Handler, there is no need for further programming.

Next, add the keypad as a source to your Grand Concerto in place of any sources controlled by the NuvoNet. Choose an Icon for the source, and change the Display Name to reflect the nature of the source:



IMPORTANT! Source Input must match input programmed into Nuvo.

COMMON MISTAKES

1. Improper programming of the Grand Concerto. Make sure you complete programming of the Nuvo equipment, and that it functions properly as a stand-alone system, before attempting to connect and control from the **g!** system.
2. Source number mismatch from Nuvo configuration to Configurator. Make sure that the source input configuration is the same in Configurator as in the Nuvo configuration to ensure the keypads in **g!** match the source selected on the Nuvo.
(I.E. Nuvo config: source 1 AM/FM; **g!** config: source 1 AM/FM)
3. ControlPad address conflict. If there are any address conflicts between Nuvo ControlPads and **g!** Virtual ControlPads there will be issues with control from those ControlPads. For example: in a typical 16 zone system with 16 Nuvo ControlPads, a maximum of 4 **g!** Virtual ControlPads can be used simultaneously without causing a conflict. This is due to the maximum number of 20 ControlPads (16 Nuvo + 4 **g!** = 20 Max).
4. Not adding a virtual keypad for each NuvoNet source. Each NuvoNet source (iPod dock, M3 server etc.) must have its own keypad configured for source control.