



Integration Note

Manufacturer:	ADA
Model Number(s):	Suite 16; Suite 32
Minimum Core Module Version:	
Comments:	Programming Software: Suite 16/32D Tester, version 16D_8 Firmware: Audio Module v3.0, Video Module v2.0
Document Revision Date:	1/10/2013

OVERVIEW AND SUPPORTED FEATURES

The Suite 16/32 is a modular A/V switcher that uses an RS-232 connection through the ADA ISO-CAT II or ISO-232 isolation box to communicate with **g!**. This serial connection to the **g!** system provides full two-way communications, enabling reliable control as well as providing feedback to the **g!** system when changes (such as the current source or volume levels) occur at the switcher.

The Suite 16/32 consists of one or more AVP-16/32 chassis that can hold up to three modules each. These chassis can be daisy chained together to expand the number of zone outputs or allow configurations that switch high definition component video or a combination of these.

The A-16/32 audio input module includes 16/32 stereo inputs via RCA connections. The Suite 16/32 can contain only one of these modules to connect to 16/32 stereo audio sources. The P-16/32 audio output module includes 16/32 preamp outputs to drive 16/32 stereo audio zones. A Suite 16/32 can contain up to six audio output modules for a total of 96 zones.

The V-16/32 video modules include 16/32 input channels and 16/32 output channels. A single V-16/32 can be used to switch composite video or three V-16/32 modules can be configured to switch component video.

THESE SWITCHERS SUPPORT THE FOLLOWING FEATURES:

Basic Source Selection: Select any available audio, video, or audio and video source with two-way feedback. Any changes made at the switcher are immediately reflected in the **g!** interface. See limitations below.

Volume Control: On Suite 16/32 systems with audio switching the volume can be controlled from the **g!** interface. Any volume changes made from the Suite 16/32 system are reflected back to the **g!** system.

Sound Control: Adjust the tone (bass and treble) from the **g!** interface. Also turn on or off the Loudness or Stereo enhancement filters on a zone by zone basis. In addition buttons can be setup to store and recall tone presets. See Suite 16/32 Documentation for more details.

All Off: A single all off command can be added to the interface to allow simpler system-wide shutdown.

THESE SWITCHERS DO NOT SUPPORT THE FOLLOWING FEATURES:

Any feature not specifically noted as supported should be assumed to be unsupported.
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Paging: The serial Paging trigger has not been integrated with **g!**.

Audio/Video Matrix switching: The video channels in a Suite 16/32 with audio can not be switched independently from the audio channels. The video must be programmed using the Suite 16/32 Tester software for "video inputs to follow audio" to allow proper operation with **g!**. This limits the total number of A/V sources to sixteen in a Suite 16/32 system configured for switching both audio and video.

Party Mode: Party mode is not supported in **g!**.

INSTALLATION OVERVIEW

1. During the rough-in phase install the necessary speaker and video cabling for the system installation.
2. Also during the rough-in phase, run a Cat5 wire from the location of the Suite 16/32 and isolation box back to the Network Assembly of the **g!** system to provide the serial connection needed to control the switcher. Refer to the **RS-232 Connection Options** Integration Note for other serial connection options.
3. Install the speakers, displays, and other distributed A/V components.
4. Program the Suite 16/32 according to the manufacturer's documentation: see **ADA Programming** below.
5. Test the system to ensure that the sources play correctly and that the audio and video operate as expected.
6. Connect the **g!** system to the Suite 16/32 electrically. See the connection diagram for more information.
7. Configure the **g!** system for the Suite 16/32 and confirm communication between it and the **g!** system controller.
8. Test the system by changing sources and volume to confirm the correct source plays.

ADA PROGRAMMING

The ADA must be programmed according to normal ADA instructions, with the following additional requirements:

CHECK SWITCH SETTINGS ON ISOLATION BOX

The isolation box has switches which must be set as follows:

1. Set switches 1, 2 and 3 Down
2. Switch 4 Up.

CHECK THE MODULE ADDRESSES

The ADA Suite 16/32 must have all modules addressed properly. Each module has an address switch accessible from under the front Plexiglas cover on the AVP-16/32 Chassis. (see the ADA documentation for more information).

Audio module addressing:

Since there can only be one A-16 audio input module it will be addressed properly from the factory.

The first P-16 audio output module (zones 1-16) should be set to address 0, the second (zones 17-32) to address 1, and so on.

Video module addressing:

For composite switching the first V-16 module (zones 1-16) should be set to address 0, the second (zones 17-32) should be set to address 1, and so on.

For component video switching the Suite 16/32 will need three V-16 modules for each group of 16 zones. It uses one module to switch each component video channel, "Y", "Cr", and "Cb".

The proper addressing of the V-16 modules for zones 1-16 is to set one module to address 0 and the other two modules to address 6.

For zones 17-32 set one module to address 1 and the other two modules to address 7.

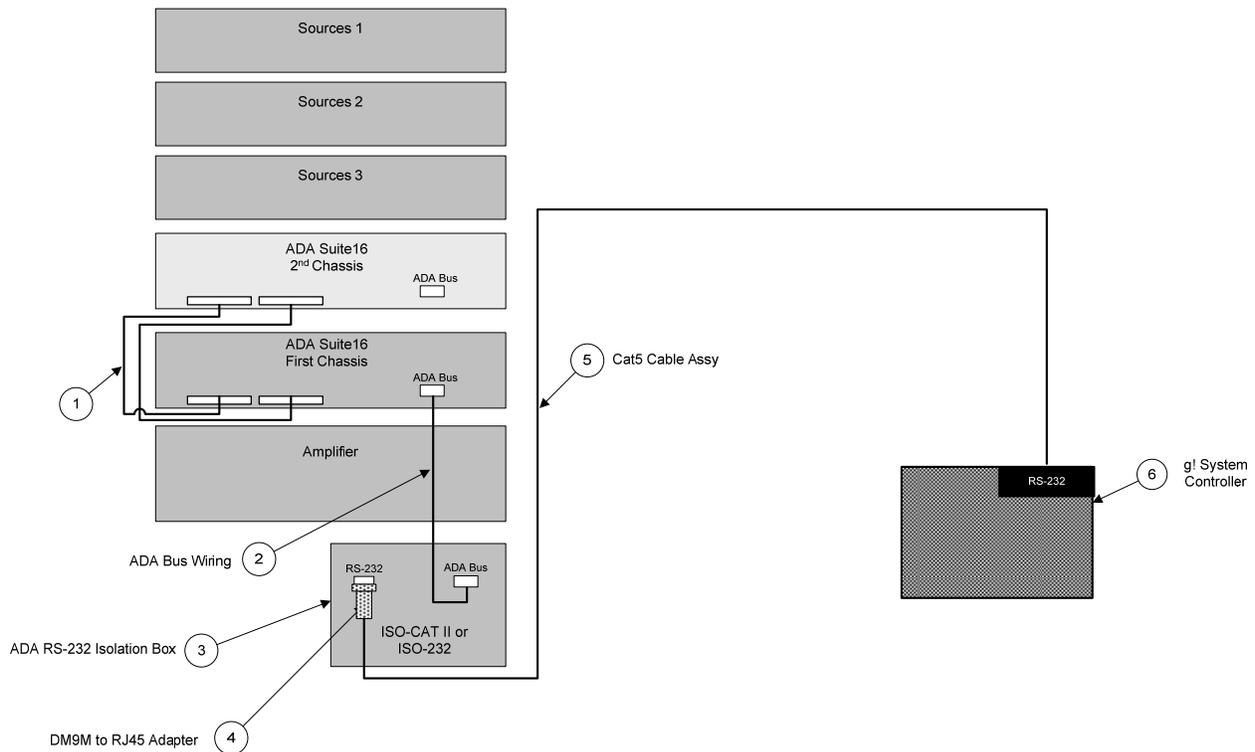
PROGRAM THE SUITE 16/32

The Suite 16/32 is programmed using the ADA Suite 16/32D Tester software. Module firmware can be checked using this tool, from the “Configuration Tab” click **Global Version Request**. Confirm the module versions match those listed in the header of this document.

There is no specific programming settings required to control an **audio only** or **video only** Suite 16/32 system. Follow ADA documentation to properly set up the system prior to connecting to g! as these settings may include audio trim levels, turn on volume, maximum volume levels, etc.

In the case of a Suite 16/32 system that will include audio **and** video switching it is required that the video inputs are programmed to follow the audio inputs. This is done on the “Video Control” tab in the software – set the video input to switch with the audio input for each source in each room that the video will be switching to.

CONNECTION DIAGRAMS



BILL OF MATERIALS

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	50 Pin Ribbon Cables	ADA	Ribbon-50	ADA Bus	Ribbon x Ribbon	Required to link multiple AVP-16 chassis
2	ADA Bus Wiring	Installer	N/A	ADA Bus	Screw x Screw	3C 18awg Shielded cable (alt. 4C 16AWG speaker cable) 15' Max wire run length
3	ADA RS-232 Isolation Box	ADA	ISO-CAT II or ISO-232	ADA Bus x RS-232	Screw x DB9 Female	
4	RJ45 x DB9 male adapter	ELAN	HW-CB-307	RS-232	RJ-45 Female X DB-9 Male	
5	Cat5 Cable Assy	Installer	N/A	RS-232	RJ-45 Male x RJ-45 Male	
6	g! Controller	ELAN	Various (e.g. HC-12)	RS-232 & Ethernet	RJ-45	

g! CONFIGURATION DETAILS

The following table provides settings used in the **g!** Configurator. Please refer to the *g! Configurator Reference Guide* for more details.

- “<Select>” Select the appropriate item from the list (or drop-down) in the Configurator.
- “<User Defined>”, etc. Type in the desired name for the item.

Devices	Variable Name	Setting	Comments
Communication Devices	Name	<User Defined> (Default: New Device)	
	Type	Serial Port	Refer to the RS-232 Connection Option Integration note for alternative configurations
	Communication Type	ADA Bus	Select the Communication Type that matches your system
	Location	<User Defined> (Not Required)	
	COM Port	<Select>	
<Other RS-232 Sources>	Add any other RS-232 controlled sources. Refer to the Integration Note for each specific source device.		
<Other IR Controlled Sources>	Add IR devices on the Input/Output tab for other IR controlled sources. Refer to the Generic IR Source Integration note.		
<Video Display>	Add the Video Display for the receiver. Refer to the Integration Note for the specific display, or the Generic Video Display Integration Note for an IR controlled display		
Other Audio Devices / Interfaces	Name	<User Defined>	Add one Interface for each source that should appear in the Viewer
	Template	<Select>	
	Default Device	<Select>	Select the RS-232 or IR controlled source for this interface
Audio Zone Controllers	Name	<User Defined>	Defaults to the make and model of your system after selecting Device Type
	Device Type	<Select>	Select your model of controller (See note 1)
	Location	<User Defined> (Not Required)	
	COM Device	<Select> (Default: New Device)	
Sources	Name	<User Defined>	
	Source Device	<Select>	Sources must be previously configured in order to allow selection.
	Source Icon	<Select>	This icon appears on the source button in the Viewer Interface
	Display Name	<User Defined>	This text appears on the source button in the Viewer Interface
Zones	Name	<User Defined>	
	Display	<Select>	Select the Video Display in this zone
	Universal Receiver	<Select>	Refer to the <i>g! Training Guide</i> for more details
	<Source>		
	Display On/Off	<Select>	For each source, select what the display should do when that source is active
	Display Source	<Select>	If using more than one input on the video display select the input for each source.
	Show Source	<Select>	Set to No for any inputs on the system that are not used or do not want to be seen in the zone
<Interface Tab>			Click on the Interface tab in order to hide or show zone tabs on individual touchscreens
	<Touchscreen Options>		Select the touchscreen to modify from the list
	Tab Layouts	<Select>	Move any unused zone tabs into Available Zones to remove from the viewer

Notes:

1. If using a video only Suite16 select either **ADA Suite16 (16 video zones)** or **ADA Suite16 (32 audio zones)** as appropriate. In the case of audio only or audio and video select the **ADA Suite16 (XX Zones)** with the correct number of zones.

COMMON MISTAKES