N7142 Presentation Switcher

Direct Control API

An SVSI system is comprised of Encoders, Decoders, and other available accessories including Presentation Switchers, Network Video Recording (NVR) solutions, Window Processing (WP) units, and Audio Transceivers (ATRs). The system allows you to distribute HD video and audio across a Gigabit Ethernet network. Each device is controllable via TCP/IP direct socket using device IP addresses and port 50002. Port 50002 supports a single connection at one time and rejects all other connection attempts until the established connection is closed.

Refer to this document to find commands needed for your NMX-PRS-N7142 Presentation Switcher application. Keep in mind that these lists are not exhaustive and many more commands are available for this device. If the command you need is not listed here, refer to the section *API Command Discovery* section on page 13 for instructions on how to find additional commands.

NOTE: This information is considered current as of the date of publication. AMX reserves the right to add/modify/remove commands and change the standard response packet as needed.

NOTE: In the Command Example sections of this document, <CR> indicates a carriage return as defined by your control method (e.g., \x0d, $0d, 00x0d, 0x0d, 0dH). <CRLF> is also supported, but not required.

NOTE: When issuing commands, it is best practice to wait for the command response before sending another. Otherwise, you must allow at least half a second between commands (when sending them back-to-back).

Device Status Commands

Command	Description	Response	Example
getStatus	Returns with current status of device.	Refer to return packet information in the *getStatus Response* section on page 7.	getStatus<CR> or ?<CR>
getNetStatus	Returns with current network status of device.	Refer to return packet information in the *getNetStatus Response* section on page 9.	getNetStatus<CR>
audio:getAudioStatus	Returns with current audio settings.	Refer to return packet information in the *getAudioStatus Response* section on page 10.	audio:getAudioStatus<CR>

Video/Audio Switch Commands

Command	Description	Example	Notes
idOn	Turns on ID mode for 10 seconds.	idOn<CR>	This is used to identify the unit you are working on. It sends an ID packet that command tools like N-Able receive and then display the unit's web page.
set	Switches the output video port[1-2] to the selected input [1-6].	set:1,2<CR>	
modeset:[1, 2],<*mode*>	Sets the output resolution modeset for either of the two outputs.	modeset:1,1080p<CR>	<*mode*> = auto | 480P60 | 720p50 | 720p60 | 1080P24 | 1080P25 | 1080P30 | 1080P50 | 1080P60 | UHD24 | UHD25 | UHD30 | UHD60 | 4K60 *Note: auto = scale to display native resolution*
colorspaceset:[1,2],<*colorspace*>	Sets the output color space.	colorspacesset:1,RGB444<CR>	<*colorspace*> = RGB444 | YUV444 | YUV422
applyPreset:[1-4]	Applies the specified preset.	applyPreset:1<CR>	
savePreset:[1-4]	Saves the specified preset.	savePreset:1<CR>	
relayOpen:[1-4]	Opens specified relay.	relayOpen:1<CR>	
relayClose:[1-4]	Closes specified relay.	relayClose:1<CR>	
gpoOn:[1-4]	Turns on the specified GPIO out if it is in output mode.	gpoOn:4<CR>	
gpoOff:[1-4]	Turns off the specified GPIO out if it is in output mode.	gpoOff:3<CR>	

Audio Controls		
Command	**Description**	**Example**
Mic Commands		
audio:micNoiseReductionLevel :[1-2],<*0-100%*>	Sets the target level of the specified Noise Reduction processor to the given decibel value.	audio:micNoiseReductionLevel :2,35<CR>
audio:micVolume:[1-2],<*0-100%*>	Sets the microphone volume for the designated output (1 or 2).	audio:micVolume:2,80<CR>
audio:micMute:[1-2],[on|off]	Mutes the microphone.	audio:micMute:2,on<CR>
audio:micFeedbackCancellerAttackTime:[1-2],<*seconds*>	Sets the feedback canceler attack time in milliseconds. Accepted values are between 0.0 and 10.0 seconds.	audio:micFeedbackCancellerAttackTime:1,10.0<CR>
audio:micFeedbackCancellerHoldTime:[1-2],<*seconds*>	Sets the feedback canceler hold time in seconds (0 to 100).	audio:micFeedbackCancellerHoldTime:2,10<CR>
audio:micFeedbackCancellerMinGain:[1-2],<*0-100%*>	Sets the minimum gain (maximum attenuation). This limits the amount of attenuation the FBC applies to a frequency band when oscillations are detected in that band.	audio:micFeedbackCancellerMinGain:2,50<CR>
audio:micEnableHpFilter:[1-2]:[on|off]	Enables the microphone high pass filter.	audio:micEnableHpFilter:1,on<CR>
audio:micEnableNoiseReduction:[1-2],[on|off]	Enables the microphone noise-reduction filter.	audio:micEnableNoiseReduction:1,off<CR>
audio:micEnableFeedBackCanceller:[1-2],[on|off]	Enables the microphone feedback canceler.	audio:micEnableFeedBackCanceller:2,off<CR>
audio:micEnableEchoCanceller:[1-2],[on|off]	Enables the microphone echo canceler.	audio:micEnableEchoCanceller:1,on<CR>
audio:micEnableMono2Stereo:[1-2],[on|off]	Duplicates the microphone audio to left/right stereo.	audio:micEnableMono2Stereo:1,on<CR>
Analog Commands		
audio:analogNoiseReductionLevel :[1-6],<*0-100%*>	Sets the target level of the specified Noise Reduction processor to the given decibel value.	audio:analogNoiseReductionLevel :2,35<CR>
audio:analogDelay:[1-6],<*milliseconds*>	Sets the number of milliseconds (0-300)by which the RX stereo stream should be delayed.	audio:analogDelay:6,15<CR>
audio:analogEnableNoiseReduction:[1-6],[on|off]	Enables the analog input noise reduction.	audio:analogEnableNoiseReduction:3,on<CR>
audio:analogEnableDelayLine:[1-6],[on|off]	Enables analog input delay.	audio:analogEnableDelayLine:6,on<CR>
audio:analogAutoDuckHangoutTime:[1-6],<*seconds*>	Sets the amount of time in millisecond during which the RX signal stays ducked after the control signal becomes inactive. Accepted values are between 0 and 60 seconds.	audio:analogAutoDuckHangoutTime:2,50<CR>
audio:analogAutoDuckFade:[1-6],<*milliseconds*>	Sets the amount of time in milliseconds during which the attenuation gain is gradually applied or removed. Accepted values are between 1 and 1000 ms.	audio:analogAutoDuckFade:2,500<CR>

Audio Controls (Cont.)		
Command	**Description**	**Example**
audio:analogAutoDuckAttenuation:[1-6],<*0-100%*>	Sets the percentage amount of attenuation to apply to the stereo RX signal when voice is detected in the control (microphone) audio stream.	audio:analogAutoDuckAttenuation:3,40<CR>
audio:analogAutoDuckSensitivity:[1-6],<*0-100&*>	Sets the percentage threshold level above which the control signal is considered active and ducking attenuation should be applied.	audio:analogAutoDuckSensitivity:1,35<CR>
audio:analogEnableAutoDuck:[1-6],[on|off]	Enables analog input ducking.	audio:analogEnableAutoDuck:6,on<CR>
HDMI Commands		
audio:hdmiVolume:[1-3],<*0-100%*>	Controls volume for the HDMI inputs.	audio:hdmiVolume:3,70<CR>
audio:hdmiNoiseReductionLevel:[1-4],<*dB*>	Sets the target level of the specified Noise Reduction processor to the given decibel value.	audio:hdmiNoiseReductionLevel:4,-25<CR>
audio:hdmiDelay:[1-4], <*milliseconds*>	Sets the number of milliseconds (0 to 300) by which the HDMI audio stream should be delayed.	audio:hdmiDelay:3,20<CR>
audio:hdmiEnableNoiseReduction:[1-4],[on|off]	Enables HDMI noise reduction filter.	audio:hdmiEnableNoiseReduction:1,on<CR>
audio:hdmiMute:[1-4],[on|off]	Mutes the HDMI input.	audio:hdmiMute:4,on<CR>
audio:hdmiEnableDelayLine:[1-4],[on|off]	Enables HDMI audio delay.	audio:hdmiEnableDelayLine:1,on<CR>
audio:hdmiEnableAutoDuck:[1-4],[on|off]	Enables HDMI audio ducking feature.	audio:hdmiEnableAutoDuck:1,on<CR>
audio: hdmiAutoDuckHangoutTime:[1-4],<*seconds*>	Sets the amount of time in seconds during which the RX signal stays ducked after the control signal becomes inactive. Accepted values are between 0 and 60 seconds.	audio: hdmiAutoDuckHangoutTime:1,50<CR>
audio:hdmiAutoDuckFade :[1-4],<*milliseconds*>	Sets the amount of time in milliseconds during which the attenuation gain is gradually applied or removed. Accepted values are between 1 and 1000 ms.	audio:hdmiAutoDuckFade :240<CR>
audio:hdmiAutoDuckAttenuation:[1-4],<*dB*>	Sets the amount of attenuation in dB to apply to the stereo RX signal when voice is detected in the control (microphone) audio stream. Accepted values are between 0 and -40 dB.	audio:hdmiAutoDuckAttenuation:2,25<CR>
audio:hdmiAutoDuckSensitivity:[1-4],<*0-100%*>	Sets the percentage threshold level above which the control signal is considered active and ducking attenuation should be applied.	audio:hdmiAutoDuckSensitivity:4,25<CR>
Lineout/Amp Commands		
audio:analogVolume:[1-6],<*0-100%*>	Sets the analog input line volume.	audio:analogVolume:3,20<CR>
audio:analogMute:[1-6],[on|off]	Mutes the analog input.	audio:analogMute:1,on<CR>
audio:mixOutVolume:[1-3],<*0-100%*>	Sets the volume for the mixer output. [1-3] = Lineout 1/2 and Amp [0-100%] = The volume for the selected lineout or amp.	audio:mixOutVolume:3,50<CR>

setSettings Commands		
Command	**Description**	**Example**
setSettings:name:<*new_name*>	Sets the unit's name.	setSettings:name:room1_switch<CR>
setSettings:ipset:<*ipaddress*>, <*netmask*>,<*gateway*>	Sets the unit's IP address, netmask and gateway.	setSettings:ipset169.254.120.2,255.255.0.0,169.254.1.1 <CR>
setSettings:ipdhcp	Sets the unit to DHCP address mode.	setSettings:ipdhcp<CR>
setSettings:ipautoip	Sets the unit AUTO IP address mode.	setSettings:ipautoip<CR>
setSettings:ipsave	Saves the current IP settings.	setSettings:ipsave<CR>
setSettings:switchIpset:<*ipaddress*>, <*netmask*>,<*gateway*>	Sets the IP address, netmask and gateway address for the unit's internal six-port switch.	setSettings:switchIpset: 169.254.120.7,255.255.0.0,169.254.1.9<CR>
setSettings:switchIpdhcp	Puts the internal switch into DHCP address mode.	setSettings:switchIpdhcp<CR>
setSettings:reboot:reboot	Reboots the unit.	setSettings:reboot:reboot<CR>
setSettings:factoryRestore:factoryRestore	Forces the unit to a factory state (except for IP settings).	setSettings:factoryRestore:factoryRestore<CR>
setSettings:factoryRestoreIP:factoryRestoreIP	Forces the unit to a factory state including IP address.	setSettings:factoryRestoreIP:factoryRestoreIP<CR>
setSettings:enableDiscoveryPackets:[on|off]	Enables auto generation of discovery packets.	setSettings:enableDiscoveryPackets:on<CR>
setSettings:discoveryIntervalSec:<*seconds*>	Sets the discovery send interval (1-1000 seconds).	setSettings:discoveryIntervalSec:5<CR>
setSettings:gratuitousARP:[on|off]	Enables generation of gratuitous ARP packets.	setSettings:gratuitousARP:on<CR>
setSettings:gratuitousARPInterval:<*seconds*>	Sets the ARP interval (1-1000 seconds).	setSettings:gratuitousARPInterval:9<CR>
setSettings:netlinxEnable:[on|off]	Enable the NetLinx server.	setSettings:netlinxEnable:on<CR>
setSettings:masterSerialIP:<*ipaddress*>	Specifies (by IP address) the server for the IP serial connection.	setSettings:masterSerialIP:169.254.120.2<CR>
setSettings:relay12Interlock:[on|off]	Enables the relay interlock function.	setSettings:relay12Interlock:on<CR>
setSettings:relay34Interlock:[on|off]	Enables the relay interlock function.	setSettings:relay34Interlock:on<CR>
setSettings:phantomPower1:[on|off]	Enables phantom power for microphone 1.	setSettings:phantomPower1:on<CR>
setSettings:phantomPower2:[on|off]	Enables phantom power for microphone 2.	setSettings:phantomPower2:on<CR>
setSettings:gpioInputMode:[1-4],[on|off]	Puts the GPIO into input mode.	setSettings:gpioInputMode:24,on<CR>

Compressor Functionality

The compressor/limiter processor keeps two separate internal gains, one for the compressor and one for the limiter. The two gains are varied in time based on the input signal level.

- The compressor amplifies low-level input signals and attenuates high-level input signals, functioning as an automatic level controller.
- The limiter makes sure the output signal never exceeds a given value (limiter knee) to avoid distortion if the signal clips.
- The compressor output is equal to its input for input levels lower than the compressor knee. At higher levels than the compressor knee, calculate the output with the following formula:
  *y = (1 / CompRatio) * CompKnee * (1 – 1/CompRatio) + Offset*
- The offset is a scalar level which moves the whole compressor input/output curve up or down.
- The limiter output equals to its input as long as the compressor output level is lower than the limiter knee. As the compressor output (which is also the limiter input) increases above the limiter knee, the output signal is limited to the limiter knee level.

Commands related to this functionality are provided in the table below.

Compressor Commands		
Command	**Description**	**Example**
audio:mixOutEnableCompressorLimiter:[1-3],[on|off]	Enables/disables the compressor limiter on the specified output (1=line1, 2=line2, 3=amplified).	mixOutEnableCompressorLimiter:1,on<CR>
audio:mixCompressorKnee:[1-3],<*db*>	Sets the compressor knee on the specified output (1=line1, 2=line2, 3=amplified). Accepted values are between -18 and 18 db.	mixCompressorKnee:2,12<CR>
audio:mixLimiterKnee:[1-3],<*db*>	Sets the limiter knee on the specified output (1=line1, 2=line2, 3=amplified). Accepted values are between -24 and 24 db.	mixLimiterKnee:3,20<CR>
audio:mixCompressorRatio:[1-3],[.1-100]	Sets the compressor ratio on the specified output (1=line1, 2=line2, 3=amplified).	mixCompressorRatio:3,10<CR>
audio:mixCompressorOffset:[1-3],<*db*>	Sets the compressor offset on the specified output (1=line1, 2=line2, 3=amplified). Accepted values are between -15 and 15 db.	mixCompressorOffset:2,8<CR>
audio:mixCompressorAttackTime:[1-3],<*milliseconds*>	Sets the compressor attack time in milliseconds on the specified output (1=line1, 2=line2, 3=amplified). The attack time determines how fast the compressor processor detects oscillations. Accepted values are between .001 and 2.0.	mixCompressorAttackTime:3,2.0<CR>
audio:mixCompressorReleaseTime:[1-3],<*milliseconds*>	Sets the compressor release time in milliseconds on the specified output (1=line1, 2=line2, 3=amplified). The release time determines how long to continue attenuation after the oscillations ends. Accepted values are between .001 and 2.0.	mixCompressorReleaseTime:1,2.0<CR>
audio:mixLimiterAttackTime:[1-3],<*milliseconds*>	Sets the limiter attack time in milliseconds on the specified output (1=line1, 2=line2, 3=amplified). Accepted values are between 0 and 2.0.	mixLimiterAttackTime:1,2.0<CR>

Compressor Commands (Cont.)		
Command	**Description**	**Example**
audio:mixLimiterReleaseTime:[1-3],<*milliseconds*>	Sets the limiter release time in milliseconds on the specified output (1=line1, 2=line2, 3=amplified). The release time determines how long to continue attenuation after the oscillations ends. Accepted values are between 0 and 2.0.	mixLimiterReleaseTime:3,1<CR>
audio:mixLeftBalance:[1-3],<*0-100%*>	Sets the mixer output left balance control on the specified output (1=line1, 2=line2, 3=amplified).	mixLeftBalance:3,10<CR>
audio:mixRightBalance:[1-3],<*0-100%*>	Sets the mixer output right balance control on the specified output (1=line1, 2=line2, 3=amplified).	mixRightBalance:3,25<CR>
audio:micMix1Coef:[1-2],[0.0-1.0]	Controls the microphone inputs into the mixer 1 output.	micMix1Coef:2,1.0<CR>
audio:analogMix1Coef:[1-6],[0.0-1.0]	Controls the analog inputs into the mixer 1 output.	analogMix1Coef:5,0.7<CR>
audio:hdmiMix1Coef:[1-4],[0.0-1.0]	Controls the HDMI inputs into the mixer 1 output.	hdmiMix1Coef:4,0.1<CR>
audio:micMix2Coef:[1-2],[0.0-1.0]	Controls the microphone inputs into the mixer 2 output.	micMix2Coef:2,0.5<CR>
audio:analogMix2Coef:[1-6],[0.0-1.0]	Controls the analog inputs into the mixer 2 output.	analogMix2Coef:6,0.5<CR>
audio:hdmiMix2Coef:[1-4],[0.0-1.0]	Controls the HDMI inputs into the mixer 2 output.	hdmiMix2Coef:4,0.0<CR>
audio:micMix3Coef:[1-2],[0.0-1.0]	Controls the microphone inputs into the mixer 3 output.	micMix3Coef:2,0.1<CR>
audio:analogMix3Coef:[1-6],[0.0-1.0]	Controls the analog inputs into the mixer 3 output.	analogMix3Coef:5,0.5<CR>
audio:hdmiMix3Coef:[1-4],[0.0-1.0]	Controls the HDMI inputs into the mixer 3 output.	hdmiMix3Coef:3,0.5<CR>
audio:mixOutEnableEqualizer:[1-3],[on|off]	Enables the equalizer for the mixer output.	mixOutEnableEqualizer:1,on<CR>
audio:mixEqGainBass:[1-3],<*0-100%*>	Mixer output bass control.	mixEqGainBass:1,5<CR>
audio:mixEqGainTreble:[1-3],<*0-100%*>	Mixer output treble control.	mixEqGainTreble:2,10<CR>
audio:mixOutEnableStereo2Mono:[1-3],[on|off]	Enables stereo to mono conversion for the mixer output.	mixOutEnableStereo2Mono:3,on<CR>
audio:mixOutEnableInvertRight:[1-3],[on|off]	Inverts the right channel for the mixer output.	mixOutEnableInvertRight:1,on<CR>
audio:mixOutStereoBalance:[1-3],[on|off]	Controls the stereo balance for the mixer output.	mixOutStereoBalance:2,on<CR>
audio:mixOutMute:[1-3],[on|off]	Mutes the mixer output.	mixOutMute:3,on<CR>

getStatus Response		
Response	**Description**	**Notes**
The response packet detailed in this table is sent as a confirmation to all commands as well as in response to the **getStatus** command. Additional information may be contained before the response packet. It is recommended when decoding response data to search for the field required and then output the data accordingly. All fields are separated by "\r".		
SERIALNUM:N7142-00000000006	Device type and serial number	
NAME:00:19:0B:8B:40:60	Name of device	Serial string with name (255 character max)
MAC:00:19:0B:8B:40:60	Mac address of device	
IP:169.254.137.6	IP address of device	
NM:255.255.0.0	Subnet mask of device	
GW:169.254.1.1	Gateway of device	
IPTRIAL:0	IP in trial mode	N-Series software specific
IPMODE:STATIC	IP mode of device	DHCP | Static | Auto IP
ID:0	N-Series software specific	N-Series software specific
REL:00.00.12	Software release number	
SWVER:11/20/2017	Software version running on device	N-Series software specific
WEBVER:1511157600	Web version running on device	N-Series software specific
FPGAVER:11/30/2017 7:38:31	N-Series software specific	N-Series software specific
BAUD:9600	Serial port's communication speed in bits per second	300 |1200 | 2400 | 4800 | 9600 | 14400 | 19200 | 28800 | 38400 | 57600 | 115200 | 230400
SNUMB:8	Number of databits per character specified for the serial port	7 | 8
SPAR:none	Serial port parity setting	even | odd | none
SP2S:1	Serial port's stop bit setting	1 | 2
MODE:auto	Scaler output mode	All modes are followed by .mode. Modes = auto | 1080p59.94 | 1080p60 | 480p | 480p59.94 | 720p59.94 | 720p60
UPDATE:0	N-Series software specific	N-Series software specific
UPDTRY:0	N-Series software specific	N-Series software specific
UPDFAILED:0	N-Series software specific	N-Series software specific
GARP:0	Gratuitous ARP option enabled/disabled	N-Series software specific
GARPINT:10	Interval setting	N-Series software specific
UNSOLST:0	Unsolicited status (to N-Series controllers)	N-Series software specific
UNSOLSTINT:10	Interval setting	N-Series software specific
MUTE:0	Mute status	0 = audio enabled | 1 = audio disabled
gpio_1_isinput:on	Mode of the **GPIO 1** connector on rear of unit.	on = input mode | off = output mode
gpio_1_state:on	State of the **GPIO 1** connector on rear of unit.	on = enabled | off = disabled
relay_1_state:off	State of left positive **Relay** connector on rear of unit.	on = relay is open | off = relay is closed
gpio_2_isinput:on	Mode of the **GPIO 2** connector on rear of unit.	on = input mode | off = output mode
gpio_2_state:on	State of the **GPIO 2** connector on rear of unit.	on = enabled | off = disabled

getStatus Response (Cont.)		
Response	**Description**	**Notes**
relay_2_state:off	State of left negative **Relay** connector on rear of unit.	on = relay is open | off = relay is closed
gpio_3_isinput:on	Mode of the **GPIO 3** connector on rear of unit.	on = input mode | off = output mode
gpio_3_state:on	State of the **GPIO 3** connector on rear of unit.	on = enabled | off = disabled
relay_3_state:off	State of right positive **Relay** connector on rear of unit.	on = relay is open | off = relay is closed
gpio_4_isinput:on	Mode of the **GPIO 4** connector on rear of unit.	on = input mode | off = output mode
gpio_4_state:on	State of the **GPIO 4** connector on rear of unit.	on = enabled | off = disabled
relay_4_state:off	State of right negative **Relay** connector on rear of unit.	on = relay is open | off = relay is closed
relay_1_2_interlock:off	Interlocked state of left **Relay** connector on rear of unit.	on = relays interlocked | off = relays not interlocked
relay_3_4_interlock:off	Interlocked state of right **Relay** connector on rear of unit.	on = relays interlocked | off = relays not interlocked
phantom_1:on	State of mic phantom power.	on = phantom power on | off = phantom power off
phantom_2:off	State of mic phantom power.	on = phantom power on | off = phantom power off
in1:Disconnected	State of **VIDEO INPUT 1** on rear of unit.	Connected = source connected | Disconnected = no source connected
in2:Connected	State of **VIDEO INPUT 2** on rear of unit.	Connected = source connected | Disconnected = no source connected
in3:Disconnected	State of **VIDEO INPUT 3** on rear of unit.	Connected = source connected | Disconnected = no source connected
in4:Disconnected	State of **VIDEO INPUT 4** on rear of unit.	Connected = source connected | Disconnected = no source connected
in5:Disconnected	State of **VIDEO INPUT 5** on rear of unit.	Connected = source connected | Disconnected = no source connected
in6:Disconnected	State of **VIDEO INPUT 6** on rear of unit.	Connected = source connected | Disconnected = no source connected
inMode1:	Input resolution for **VIDEO INPUT 1** on rear of unit.	If a source is connected, the input resolution is shown here.
inMode2:3840x2160@30	Input resolution for **VIDEO INPUT 2** on rear of unit.	If a source is connected, the input resolution is shown here.
inMode3:	Input resolution for **VIDEO INPUT 3** on rear of unit.	If a source is connected, the input resolution is shown here.
inMode4:	Input resolution for **VIDEO INPUT 4** on rear of unit.	If a source is connected, the input resolution is shown here.
inMode5:	Input resolution for **VIDEO INPUT 5** on rear of unit.	If a source is connected, the input resolution is shown here.
inMode6:	Input resolution for **VIDEO INPUT 6** on rear of unit.	If a source is connected, the input resolution is shown here.
out1a:Disconnected	Status of **VIDEO OUTPUT 1A** on rear of unit.	Connected = output device (monitor, etc.) connected to this output | Disconnected = no output device connected to this output

getStatus Response (Cont.)		
Response	**Description**	**Notes**
out1b:Disconnected	Status of **VIDEO OUTPUT 1B** on rear of unit.	Connected = output device (monitor, etc.) connected to this output | Disconnected = no output device connected to this output
out2a:Connected	Status of **VIDEO OUTPUT 2A** on rear of unit.	Connected = output device (monitor, etc.) connected to this output | Disconnected = no output device connected to this output
out2b:Connected	Status of **VIDEO OUTPUT 2B** on rear of unit.	Connected = output device (monitor, etc.) connected to this output | Disconnected = no output device connected to this output
outMode1:1080p60	Output resolution for **VIDEO OUTPUTS 1A/1B** on rear of unit.	If source is connected, the output resolution is shown here.
outClr1:YUV444	Output colorspace for **VIDEO OUTPUTS 1A/1B** on rear of unit.	If source is connected, the output colorspace is shown here.
outMode2:1080p60	Output resolution for **VIDEO OUTPUTS 2A/2B** on rear of unit.	If source is connected, the output resolution is shown here.
outClr2:YUV444	Output colorspace for **VIDEO OUTPUTS 2A/2B** on rear of unit.	If source is connected, the output colorspace is shown here.
outSel1:2	Current input/output state for **VIDEO OUTPUTS 1A/1B** on rear of unit.	Reports which input the output is sending out. For example, **outSel1:2** means **VIDEO OUTPUT 1** is sending out **VIDEO INPUT 2**'s video.
outSel2:2	Current input/output state for **VIDEO OUTPUTS 2A/2B** on rear of unit.	Reports which input the output is sending out. For example, **outSel2:2** means **VIDEO OUTPUT 2** is sending out **VIDEO INPUT 2**'s video.
preset1Pressed	Increments whenever preset 1 is selected.	Useful for triggering N-Act events from the preset button.
preset2Pressed	Increments whenever preset 2 is selected.	Useful for triggering N-Act events from the preset button.
preset3Pressed	Increments whenever preset 3 is selected.	Useful for triggering N-Act events from the preset button.
preset4Pressed	Increments whenever preset 4 is selected.	Useful for triggering N-Act events from the preset button.
fpgaTemp:50.067093	Temperature of the unit in degrees Celsius.	
fanControl:0	Forced fan speed: 0 - fan auto 1 - fan off 2 - fan low 3 - fan mid 4 - fan high	
fanSpeed:0	Fan speed 0-100%.	

getNetStatus Response	
Response	**Description**
SVSI_NETSTATS:N7142-00000000006	Device type and serial number of the N-Series device
NAME:Room2_TestSwitcher1	User-configured name of the N-Series device
MAC:00:19:0B:80:31:9E	MAC address of the N-Series device
IP:169.254.119.168	IP address of the N-Series device
NM:255.255.0.0	Subnet mask of the N-Series device
GW:169.254.1.1	Gateway IP address of the N-Series device
SWVER:11/20/2017	Software version of the N-Series device

getAudioStatus Response		
Response	**Description**	**Notes**
The response packet detailed in this table is sent as a confirmation to all commands as well as in response to the **getAudioStatus** command. Additional information may be contained before the response packet. It is recommended when decoding response data to search for the field required and then output the data accordingly. All fields are separated by "\r".		
SVSI_AUDIOSTATUS:N7142-15400000000	Device type and serial number	
Mic:0:0.00,0,0,0.00,1,1,1,0,1,0	Status of microphone. Mic:0 = mic 1 Mic:1 = mic 2 *NOTE: Microphone connections are located on the rear of the unit, bottom left, labeled 1 and 2.*	In this example: **Mic:0:** = indicates mic 1 or 2 [0 = mic 1 | 1 = mic 2] **0.00** = current volume level **0** = current micFeedBackCancellerAttackTime **0** = current micFeedBackCancellerHoldTime **0.00** = current micFeedBackCancellerMinGain **1** = micEnableHpFilter [0=off | 1=on] **1** = micEnableNoiseReduction [0=off | 1=on] **1**= micEnableFeedBackCanceller [0=off | 1=on] **0** = enableEchoCancellar [0=off | 1=on] **1** = micEnableMono2Stereo [0=off | 1=on] **0** = mute status [0=unmuted | 1=muted]
Rx:0:0,0,51.25,20.00,40.00,35,30,0,0,0,0	Status of analog audio inputs. Rx:0 = audio input 1 Rx:1 = audio input 2 Rx:2 = audio input 3 Rx:3 = audio input 4 Rx:4 = audio input 5 Rx:5 = audio input 6 *NOTE: Analog audio inputs are located on the rear of the unit, under the AUDIO INPUTS label, and are marked 1 through 6.*	In this example: **Rx:0:** = analog audio input 1(see *Description* column) **0** = AutoDuckHangoutTime **0**= AutoDuckFade **51.25** = current volume level **20.00** = AutoDuckAttenuation level **40.00** = AutoDuckSensitivity level **35** = AnalogNoiseReductionLevel **30** = AnalogDelay Level **0** = AnalogEnableNoiseReduction [0=off | 1=on] **0** = AnalogEnableDelayLine [0=off | 1=on] **0** = analogEnableAutoDuck [0=off | 1=on] **0** = mute status [0=unmuted | 1=muted]
Rx:6:0,0,48.00,30.00,20.00,10,0,0,0,0,0	Status of the audio provided by the HDMI video inputs. Rx:6 = HDMI video input 2 Rx:7 = HDMI video input 3 Rx:8 = HDMI video input 5 Rx:9 = HDMI video input 6 *NOTE: HDMI video inputs are located on the rear of the unit, above the VIDEO INPUTS labeling, and are marked 2, 3, 5, and 6.*	In this example: **Rx:6:** = HDMI video input 2 (see *Description* column) **0** = AutoDuckHangoutTime **0**= AutoDuckFade **48.00** = Audio Volume **30.00** = AutoDuckAttenuation **20.00** = AutoDuckSensitivity **10** = hdmiNoiseReductionLevel **0** = HDMIdelay **0** = hdmiEnableNoiseReduction [0=off | 1=on] **0** = hdmiEnableDealyLine [0=off | 1=on] **0** = hdmiEnableAutoDuck [0=off | 1=on] **0** = mute status [0=unmuted 1=muted]

getAudioStatus Response (Cont.)		
Response	**Description**	**Notes**
Mix:0:76.00,-15.00,-2.00,4.00,2.00,0.10, 0.50,0.01,0.50,1.00,1.00,0,0,0,0,0,0,0,0	Status of the lineout audio outputs. Mix:0 = Lineout 1 Mix:1 = Lineout 2 *NOTE: Lineout audio outputs are located on the rear of the unit, under the OUTPUTS labeling, and are marked 1 and 2.*	**Mix:0:** = lineout audio 1 (see *Description* column) **76.00** = Volume **-15.00** = mixCompressorKnee **-2.00** = mixLimiterKnee **4.00** = mixCompresserRatio **2.00** = mixCompressorOffset **0.10** = mixCompressorAttackTime **0.50** = mixCompressorReleaseTime **0.01** = mixLimiterAttackTime **0.50** = mixLimiterReleaseTime **1.00** = mixLeftBalance **1.00** = mixRightBalance **0** = Bass level **0** = Treble level **0** = mixoutEnableCompressorLimiter [0=off | 1=on] **0** = mixOutEnableEqualizer [0=off | 1=on] **0** = mixOutEnableMono2Stereo [0=off | 1=on] **0** = mixOutStereoBalance [0=off | 1=on] **0** = mixOutEnableInvertRight [0=off | 1=on] **0** = mute status [0=unmuted | 1=muted]
Mix:2:76.00,-15.00,-2.00,4.00,2.00,0.10, 0.50,0.01,0.50,1.00,1.00,0,0,0,0,0,0,0,0	Status of the active amplified audio output. Mix:2 = Amplified output *NOTE: Amplified audio outputs are located on the rear of the unit, under the left card slot. They are labeled 60W, 70V 100W, and 100V 100W.*	**Mix:0:** = amplified audio output (see *Description* column) **76.00** = Volume **-15.00** = mixCompressorKnee **-2.00** = mixLimiterKnee **4.00** = mixCompresserRatio **2.00** = mixCompressorOffset **0.10** = mixCompressorAttackTime **0.50** = mixCompressorReleaseTime **0.01** = mixLimiterAttackTime **0.50** = mixLimiterReleaseTime **1.00** = mixLeftBalance **1.00** = mixRightBalance **0** = Bass level **0** = Treble level **0** = mixoutEnableCompressorLimiter [0=off | 1=on] **0** = mixOutEnableEqualizer [0=off | 1=on] **0** = mixOutEnableMono2Stereo [0=off | 1=on] **0** = mixOutStereoBalance [0=off | 1=on] **0** = mixOutEnableInvertRight [0=off | 1=on] **0** = mute status [0=unmuted | 1=muted]
MixCoef:1:0.00,0.00,0.00,0.00,0.00,0.00,0.0 0,0.00,0.00,0.00,0.00,0.00,0.00	Mixing status of the lineout audio outputs. MixCoef:0 = Lineout 1 MixCoef:1 = Lineout 2 *NOTE: Lineout audio outputs are located on the rear of the unit, under the OUTPUTS labeling, and are marked 1 and 2.*	**MixCoef:0:** = lineout 1 mixing status **0.00** = Mic 1 mix level **0.00** = Mic 2 mix level **0.10** = Analog 1 mix level **0.00** = Analog 2 mix level **0.00** = Analog 3 mix level **0.00** = Analog 4 mix level **0.00** = Analog 5 mix level **0.00** = Analog 6 mix level **0.00** = Video 2 mix level **0.00** = Video 3 mix level **0.00** = Video 5 mix level **0.00** = Video 6 mix level

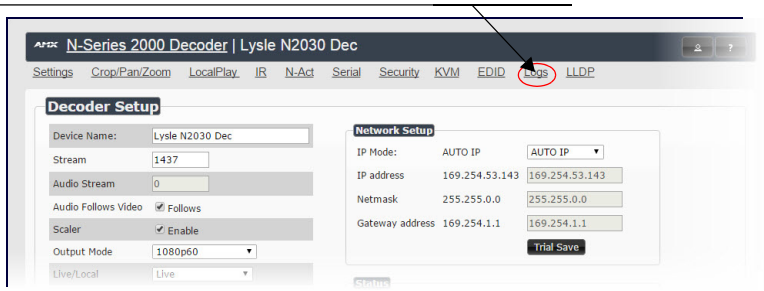
getAudioStatus Response (Cont.)		
Response	**Description**	**Notes**
MixCoef:2:0.00,0.00,0.10,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00,0.00	Mixing status of the active amplified audio output. MixCoef:2 = Amplified output *NOTE: Amplified audio outputs are located on the rear of the unit, under the left card slot. They are labeled 60W, 70V 100W, and 100V 100W.*	**MixCoef:2:** = amplified audio mixing status **0.00** = Mic 1 mix level **0.00** = Mic 2 mix level **0.10** = Analog 1 mix level **0.00** = Analog 2 mix level **0.00** = Analog 3 mix level **0.00** = Analog 4 mix level **0.00** = Analog 5 mix level **0.00** = Analog 6 mix level **0.00** = Video 2 mix level **0.00** = Video 3 mix level **0.00** = Video 5 mix level **0.00** = Video 6 mix level

API Command Discovery

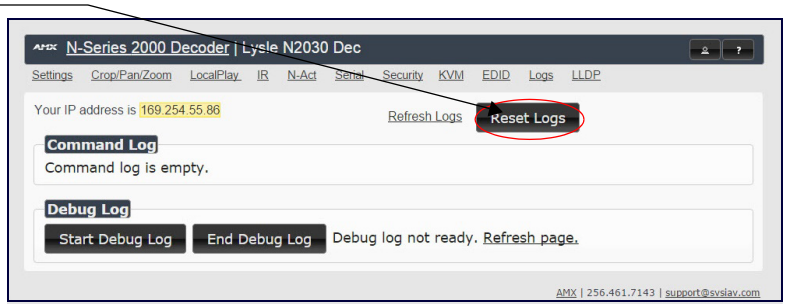
Follow these steps to discover API commands using the web interface's **Log** page.

NOTE: This example features an N-Series system Decoder, but the steps also apply to most N-Series system products.

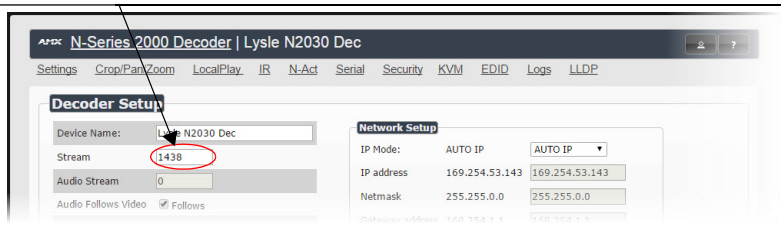
1. Log in to your unit's web interface and click the **Logs** link at the top of the page.



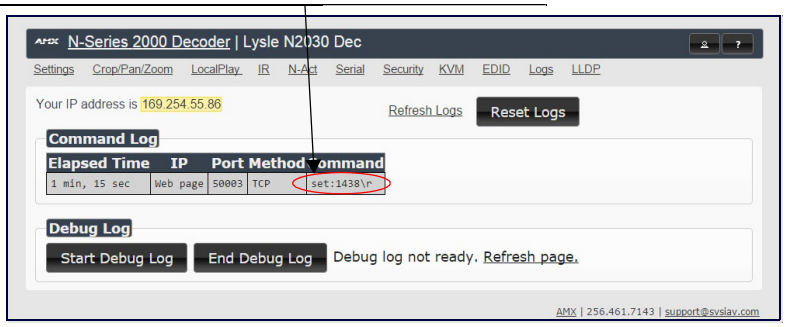
2. Click the **Reset Logs** button.



3. Change a setting. For this example, we are discovering the API command used to change the **Stream** setting.



4. Return to the **Logs** page. The API command for the change displays here.



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