N6123 Network Video Recorder

Direct Control API

An SVSI system is comprised of Encoders, Decoders, and other available accessories including 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 the commands needed for your NMX-NVR-N6123 application.

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).

API Command List

Command	Description	Command Example	Response Example	Notes
audioenable[:<channel>]	Enables audio playback on the given channel.	audioenable: 0 <CR>	Audio enabled.	<channel>: 0 in N1000 or N2000 mode; 0 through 9 in N3000 mode. If <channel> is blank or -1, audio is enabled on all channels.
audiodisable[:<channel>]	Disables audio playback on the given channel.	audiodisable: -1 <CR>	Audio disabled.	<channel>: 0 in N1000 or N2000 mode; 0 through 9 in N3000 mode. If <channel> is blank or -1, then audio is disabled on all channels.
bookmarkadd:<recording>, <id>, <time>	Adds a bookmark to the given recording.	bookmarkadd:"My Recording", BOOK1, 300 <CR>	Bookmark added.	<recording>: Filename, index number, or quoted description name of recording. <id>: Name of book (can be number or alphanumeric string with no spaces or punctuation). <time>: Time in seconds from the start of recording.
bookmarkaddplay:<channel>, <id>	Adds a bookmark onto a currently playing channel.	bookmarkaddplay:0, BOOK1 <CR>	Bookmark added.	<channel>: Number of currently playing NVR channel. <id>: Name of book (can be number or alphanumeric string with no spaces or punctuation).
bookmarkaddrec:<channel>, <id>	Adds a bookmark onto a currently recording channel.	bookmarkaddrec:1, BOOK1 <CR>	Bookmark added.	<channel>: Number of currently recording NVR channel. <id>: Name of book (can be number or alphanumeric string with no spaces or punctuation).
bookmarkdel:<recording>, <id>	Removes a bookmark from the given recording.	bookmarkdel:"My Recording", BOOK1 <CR>	Bookmark deleted.	<recording>: Filename, index number, or quoted description name of recording. <id>: Name of book (can be number or alphanumeric string with no spaces or punctuation).

Command	Description	Command Example	Response Example	Notes
copy:<*IP address*>, <*recording*>, <*description*>	Copies a recording from a remote NVR to this NVR.	copy:169.254.120.2 ,f.563BA353, LECTURE 06-03-2015 <CR>	Starting to copy	<*IP address*>: Remote NVR's IP address in IPv4 format. <*recording*>: Filename of a recording in **f.########** format on remote unit. Do NOT include the **.index** portion of the filename. <*description*>: New description of recording.
copystatus	Returns status of the current copy.	copystatus <CR>	status:copying remoteFile:f.5329B5AD localFile:z.5329B5AD description:MyDescription percent:27 error:busy	<*status*>: Current status of current copy. <*remoteFile*>: Filename of a recording (in **f.########** format) that you are copying from remote unit. <*localFile*>: New filename created for the local copy of recording (in **z.########** format). <*description*>: New description of copy. <*percent*>: Current copy progress (percent complete). <*error*>: Error message type given if problem experienced during copy. For example, you will receive the error "**Could not copy index file**" if you included the **.index** extension in the filename when issuing the **copy** command.
delete:<*recording*>	Deletes an NVR recording.	delete: f.58862E24.index <CR>	Delete started for recording: f.58862E24.index	<*recording*>: Index filename of the recording to delete in the **f.########.index** format. If <*recording*> is DELETE_ALL, then all recordings on the NVR will be deleted.
diskspace	Reports the disk space information.	diskspace <CR>	293450230,480717836, 4096	Returns the following: <*freeblocks*>: Number of free blocks on drive. <*total blocks*>: Total number of blocks available on drive. <*bytes*>: Number of bytes per block.
dvrmode:<*mode*>	Changes the mode of the NVR to be N1000, N2000, N3000, or N2400.	dvrmode:2 <CR>	Mode changed.	<*mode*>: Recording mode of NVR. • 0 = Unassigned/None • 1 = N1000 • 2 = N2000 • 3 = N3000 • 4 = N2400 Changing modes changes the number of available channels. N1000 mode has one channel, N2000 mode has two synchronous channels, N3000 mode has ten channels, and N2400 mode has one channel.

Command	Description	Command Example	Response Example	Notes
factoryRestore:factoryRestore	Restores all settings back to factory settings. Does NOT delete MPEGs or recordings.	factoryRestore: factoryRestore <CR>		
forward[:<channel>, [<frames>]]	Puts the current playing recording into fast forward using the last speed or the given speed measured in number of <frames>.	forward: 1 <CR>	Fast forward: 1x.	<channel>: Number of NVR channel to control. Use -1 or leave blank for all playing channels. <frames>: Number of frames to jump forward per update (optional).
hold:<play | record>	Holds either a playback or record command until released.	hold:record <CR>	Hold started.	Used for playing or recording multiple channels at the same time. Hold first, then issue the commands for playback/ recording, then issue the matching release command. **play**: Holds all playback commands until released. **record**: Holds all record commands until released.
info:<recording>	Returns information about the recording.	info:f.583C8DE0.index <CR>	index:0 filename:f.583C8DE0.index start:1480363488 duration:986 description:2141_audio2 mode:2 keep:0 deletequeue:0 convertqueue:0 cp:0	<recording>: Filename of recording in **f.########.index** format or zero-based index number in list. The response is returned as follows: <index>: Index number in the master index. <filename>: Filename on server in **f.########.index** format. <start>: Unix start time stamp for recording. <duration>: Length of recording in seconds. <description>: Quoted text or description in ASCII. <mode>: Mode of recording (1=N1000, 2=N2000, 3=N3000). <keep>: If value is 1, this file cannot be deleted. If value is 0, this file can be deleted. <deletequeue>: If value is 1, this file is in the process of being deleted. If value is 0, this file is not in the process of being deleted. <convertqueue>: If value is 1, this file is in the process of being converted. If value is 0, this file is not in the process of being converted. <cp>: If value is 1, this file is in the process of being copied using the **copy** command. If value is 0, this file is not in the process of being copied. Returns **ERROR: Not Found!** if the recording is not found.

Command	Description	Command Example	Response Example	Notes
ipautoip	TCP-only command. Sets the unit to AutoIP mode and reboots.	ipautoip <CR>	IP address set to AutoIP mode.	
ipdhcp	TCP-only command. Sets the unit to DHCP mode and reboots.	ipdhcp <CR>	IP address set to DHCP mode.	
ipstatic:*<ip addr>,<netmask>,<gateway>* *No spaces after commas.*	TCP-only command. Sets the unit to static IP mode (all fields are IPv4 format).	ipstatic:169.254.120.2,255.255.0.0,169.254.1.1 <CR>	IP address set to ip:169.254.120.2, netmask:255.255.0.0, gateway:169.254.1.1.	*<ip addr>:* Static IP address for NVR *<netmask>:* Network mask *<gateway>:* Gateway router number
keep:*<recording>*	Marks a file as 'keep' and will not allow it to be deleted.	keep:f.563BA353.index <CR>	Recording marked keep.	*<recording>:* Filename of recording in **f.########.index** format, zero-based index number in list, or quoted description.
list	TCP-only command. Sends a complete list of entries to the TCP stream.	list <CR>	index:0 filename:f.555A377B.index start:1431975803 duration:240 description:3510Clip1 mode:3 keep:0 deletequeue:0 convertqueue:0 cp:0 + … more entries … *	Records are reported in a *<field>:<value>* format per line. At the end of each record, "+" or "*****" is presented. **+** means another record is available. ***** means the list has ended. Each record has the following fields: *<index>*: Index number in the master index. *<filename>*: Filename on server in **f.########.index** format. *<start>*: Unix start time stamp for recording. *<duration>*: Length of recording in seconds. *<description>*: Text of description in ASCII. *<mode>*: Mode of recording (1=N1000, 2=N2000, 3=N3000). *<keep>*: If value is 1, this file cannot be deleted. If value is 0, this file can be deleted. *<deletequeue>*: If value is 1, this file is in the process of being deleted. If value is 0, this file is not in the process of being deleted. *<convertqueue>*: If value is 1, this file is in the process of being converted. If value is 0, this file is not in the process of being converted. *<cp>*: If value is 1, this file is in the process of being copied using the **copy** command. If value is 0, this file is not in the process of being copied.

Command	Description	Command Example	Response Example	Notes
mpegconvert:*<recording>*, *<stream>*, *<bitrate>*, *<description>*	Converts a recording into an MPEG file.	mpegconvert:f.563BA353.index, 0, 7500000, LECTURE 06-03-2015 <CR>	MPEG conversion started.	*<recording>:* Filename of recording in **f.########.index** format, zero-based index number in list, or quoted description. *<stream>:* 0 for first record stream, 1 for second record stream. *NOTE: You can only send one <stream> parameter per command. Setting to 1 only applies to dual recordings.* *<bitrate>*: Video output rate in bps. 0 = default (7,500,000 bps). *<description>*: Textual description of MPEG recording. *NOTE: If <recording> is CONVERT_ALL, then all recordings that have not been converted will be converted. <stream> is ignored with the command. The recorded stream number is prepended to the description.*
mpegdelete:*<recording>*	Deletes an MPEG recording.	mpegdelete:f.563BA353.mp4 <CR>	MPEG delete started.	*<recording>*: Filename of recording in **f.########.mov** or **f.########.mp4** format or zero-based index number in list. *NOTE: If <recording> is DELETE_ALL, then all MPEG recordings will be deleted.*

Command	Description	Command Example	Response Example	Notes
mpeglist	TCP-only command. Sends a complete list of entries to the TCP stream.	mpeglist <CR>	index:0 video:f.52EC0B38.mov audio:f.52EC0B38.mp3 duration:60 description: testdualsync source:f.53308A66.index stream:0 size:1430384483 deletequeue:0 + … more entries … *	Records are reported in a *<field>:<value>* format per line. At the end of each record, "**+**" or "*****" is presented. **+** means another record is available. ***** means the list has ended. Each record has the following fields: *<index>*: Index number in the master MPEG index. *<video>*: Filename on video MPEG file in **f.########.mov** or **f.#######.mp4** format (see mpegmode command for details). *<audio>*: Filename of audio MPEG file in **f.#######.mp3** format. *<duration>*: Length of recording in seconds. *<description>*: Text of description in ASCII. *<source>*: Name of source file. *<stream>:* 0 = first/only stream or 1 = second stream of a dual recording. *<size>*: Size of file in bytes. *<deletequeue>*: If value is 1, this file is in the process of being deleted. If value is 0, this file is not in the process of being deleted.
mpegmode:<mov | mp4 >	Sets the MPEG conversion mode.	mpegmode:mp4 <CR>	MPEG Convert mode changed.	Set to **mov** for .mov conversions or **mp4** for .mp4 conversions. Default is **mp4**. *NOTE: When in N3000 mode, the .mov file format is not applicable.*
mpegstatus	Returns status of MPEG converter.	mpegstatus <CR>	MPEGConvert:1 mpegFile:f.52F1FD32.mp4 mpegDesc:StarTrek mpegStream:0 mpegPercent:2 mpegMode:mp4 mpegQueue:2	Records are reported in a *<field>:<value>* format. Each record has the following fields: *<MPEGConvert>*: 1 is displayed if a conversion is in progress, otherwise 0 is displayed. *<mpegFile>*: Name of file being converted. *<mpegDesc>*: Description of MPEG file being created. *<mpegStream>*: 0 for primary, 1 for secondary (when converting from a dual source recording). *<mpegPercent>*: Percent complete (1-100). *<mpegMode>*: Output conversion mode (mov or mp4). *<mpegQueue>*: Number of recordings that are queued up for conversion.

Command	Description	Command Example	Response Example	Notes
mpegqueuelist	TCP-only command. Sends a complete list of entries to the TCP stream.	mpegqueuelist <CR>	index:0 filename:f.57E2FB7E.mp4 percent:25 text:Conversion complete + … more entries … *	Records are reported in a <field>:<value> format per line. At the end of each record, "+" or "*" is presented. + means another record is available. * means the list has ended. Each record has the following fields: <index>: Index number in the master MPEG index. <filename>: Filename of video MPEG file in **f.########.index**, **f.########.mov** or **f.#######.mp4** format (see mpegmode command for details). <percent>: Percent complete (0-100). <text>: Status text for conversion (for example, "Conversion added to queue", "Conversion complete", "Conversion failed").
mpegqueuelistclear: clear	Clears the list of MPEG conversion results.	mpegqueuelistclear: clear <CR>	Cleared.	
mpegstop	Stops the conversion of an MPEG file.	mpegstop <CR>	MPEG conversion stop requested.	
pause[:<channel>]	Pauses the current playing recording.	pause: 1 <CR>	Paused.	<channel>: Number of the NVR channel to pause. Use -1 or leave blank to pause all playing channels (optional).
play:<channel>, <recording>, <loop>, <all>, [<start>, <end>]	Plays an NVR recording specified by the given parameters. *NOTE: If start time is not specified, play starts at the beginning of the recording. To play a recording from the point it was paused, use the nplay command.*	play:1,f.563BA353.index, 0, 1, 10, 600 <CR>	Play started for recording: n.55CB5246.index	<channel>: Number of the NVR channel to use for playback. <recording>: Filename of recording in **f.########.index** format, zero-based index number in list, quoted description, or NEWEST. <loop>: 1= looping, 0=play once. <all>: 1 = all streams (dual play), 0=first stream only (default). <start>: Number of seconds from start to start playing (optional). <end>: Number of seconds from start to end playing (optional).
playhold:<channel>	Holds a single <channel> from playing recordings until a **release** command is executed.	playhold:1 <CR>	Hold started.	<channel>: Number of the NVR channel to control. Use the **stop:**<channel> command to abort the hold.
rechold:<channel>	Holds a <channel> from recording videos until a **release** command is executed.	rechold:1 <CR> ghhj	Hold started.	<channel>: Number of the NVR channel to control. Use the **recstop:**<channel> command to abort the hold.

Command	Description	Command Example	Response Example	Notes
record:*<channel>*, *<vid1stream>*, *<aud1stream>*, *[<vid2stream>*, *<aud2stream>]*, *<duration>*, *<description>*	Starts a single or dual recording on the given streams.	record:1, 433, 0, 600, LECTURE 06-03-2015 <CR>	Recording	*<channel>:* Number of the NVR channel to use for this recording. *<vid1stream>*: Stream number of first video stream to record. *<aud1stream>*: Stream number of first audio stream to record, or 0 to follow vid1stream. *<vid2stream>*: Stream number of second video stream to record (optional). *<aud2stream>*: Stream number of second audio stream to record, or 0 to follow vid2stream (optional). *<duration>*: Length of recording in seconds. *<description>*: Text of description in ASCII (quotes not needed).
recordc:*<channel>*, *<vid1stream>*, *<aud1stream>*, *[<vid2stream>*, *<aud2stream>]*, *<duration>*, *<description>*	Starts a single or dual continuous recording on the given streams. The recording continues until the **recstop** or **rechold** command is given.	recordc:1, 433, 0, 3600, LECTURE 06-03-2015 <CR>		*<channel>*: Number of the NVR channel to use for this recording. *<vid1stream>*: Stream number of first video stream to record. *<aud1stream>*: Stream number of first audio stream to record, or 0 to follow vid1stream. *<vid2stream>*: Stream number of second video stream to record (optional). *<aud2stream>*: Stream number of second audio stream to record, or 0 to follow vid2stream (optional). *<duration>*: The amount of the recording that will be saved (in seconds). In other words, enter 3600 to always save the last hour of recorded content. *<description>*: Text of description in ASCII (quotes not needed).

Command	Description	Command Example	Response Example	Notes
recordconvert:*<channel>*, *<vid1stream>*, *<aud1stream>*, [*<vid2stream>*, *<aud2stream>*], *<duration>*, *<bitrate>*, *<description>*	Starts a single or dual recording on the given streams and converts the recording to MPEG	recordconvert:1, 215, 0, 300, 0, LECTURE 06-03-2015 <CR>	Recording	*<channel>*: Number of the NVR channel to use for this recording. *<vid1stream>*: Stream number of first video stream to record. *<aud1stream>*: Stream number of first audio stream to record, or 0 to follow vid1stream. *<vid2stream>*: Stream number of second video stream to record (optional). *<aud2stream>*: Stream number of second audio stream to record, or 0 to follow vid2stream (optional). *<duration>*: Length of recording in seconds. *<bitrate>*: Video output rate (in bps), 0=default (7,500,000 bps). *<description>*: Text of description in ASCII (quotes not needed).
recstop[:*<channel>*]	Stops the current recording (if any).	recstop: 1 <CR>	Recording stopped.	*<channel>*: Number of the NVR channel to stop recording. Use -1 or leave blank to stop all recordings.
recswitch:*<channel>*, *<vid1stream>*, *<aud1stream>*, [*<vid2stream>*, *<aud2stream>*]	Changes the record streams associated with the given channel.	recswitch:1, 312, 0 <CR>	Recording switching streams	*<channel>*: Channel 0-9 to change. *<vid1stream>*: Stream number of first video stream to use for record. Enter * for no change. *<aud1stream>*: Stream number of first audio stream to use for record, or 0 to follow vid1stream. Enter * for no change. *<vid2stream>*: Stream number of second video stream to use for record (channel 0 only on N1000/N2000). Enter * for no change. *<aud2stream>*: Stream number of second audio stream to use for record, or 0 to follow vid2stream (channel 0 only on N1000/N2000). Enter * for no change.
reboot:reboot	Forces the NVR to reboot.	reboot:reboot <CR>	Reboot initiated.	
shutdown:shutdown	Forces the NVR to shutdown	shutdown:shutdown <CR>		

Command	Description	Command Example	Response Example	Notes
release:<play | record>	Releases either a playback or record waiting to start.	release:play <CR>	Released.	**play**: Releases all waiting playback commands. **record**: Releases all waiting record commands. Used for initiating the playing or recording of multiple channels at the exact same time. Hold first, then enter the commands for playback/recording, then enter the matching release command.
remoteCopy:genkeys	Generates new keys for the secure remote copy.	remoteCopy:genkeys <CR>	Started Remote copy: remoteCopy: newkeys	
remoteCopy: <recording>	Copies a single MPEG file from this NVR to the declared destination (set by web browser).	remoteCopy: f.588B795B.mp4 <CR>	Started Remote copy: remoteCopy:f.588B795B .mp4	<recording>: Filename of video MPEG file in **f.########.mov** or **f.#######.mp4** format.
remoteCopy:result	Obtains the results of the most recent remote copy.	remoteCopy:result <CR>	source z.5888FF77.index method SCP verify Failed. timestamp Feb 2, 2017 11:13:00 AM	Each record has the following fields: <source>: Name of source file being copied. <method>: Method used to access source file [**SCP | NETSHARE | FTP**]. <verify>: Displays status of current copying effort as one of the following: [**Success | Failed | verify Failed | verify Disabled**]. <timestamp>: Date and timestamp of beginning of copy. Returns **ERROR:No remote copy result available** if no remote copy has been performed yet.
reset:ip	Resets the IP address back to its default.	reset:ip <CR>		
reset:reset	Resets the NVR (like a power cycle).	reset:reset <CR>		
resume[:<channel>]	Resumes the currently paused, rewinding, or fast forwarding recording.	resume: 1 <CR>	Playing normal.	<channel>: Number of the NVR channel to use. Use -1 or leave blank for all channels.
rewind[:<channel>, [<frames>]]	Puts the currently playing recording into rewind mode using the last speed or the given speed (measured in number of <frames>).	rewind: 1 <CR>	Rewind: 1x.	<channel>: Number of the NVR channel to control. Use -1 or leave blank for all playing. <frames>: Number of frames to jump back per update (optional).
setname:<name>	TCP-only command. Changes the name of the unit to <name>.	setname:MainVenue <CR>	Name changed.	<name>: New unit name. Can be 1 to 79 characters.
setSettings: appendDesc: <on | off>	Turns on/off the appending of descriptions onto MPEG and MP3 conversions.	setSettings:appendDesc: on <CR>	appendDesc set "on"	When on, the recording description is appended to the filename of the conversion. Default is off.

Command	Description	Command Example	Response Example	Notes
setSettings: divasGen1: <on | off>	Sets the unsolicited packets sent to divas to use Gen1 (on) or the newer Gen2 (off) mode.	setSettings:divasGen1: on <CR>	divasGen1 set "on"	This flag is provided for backwards compatibility. Default is off.
setSettings:divasIP:<ip address>	Sets the IP address of the divas controller for unsolicited messages.	setSettings:divasIP: 169.254.120.2 <CR>	divas IP address set to 169.254.120.2	
setSettings: divasMode: <on | off>	Turns on/off divas status messages.	setSettings:divasMode: on <CR>	divasMode set "on"	When on, status is reported every ten seconds.
setSettings: ad_mblimit:<limit>	Sets the auto delete limit in <limit> MB (mega-bytes).	setSettings:ad_mblimit: 128 <CR>	mblimit set to: 128	When the free space goes lower than this level, the oldest recording is deleted.
setSettings:ttl:<number>	Changes the time to live on packets to the given <number>.	setSettings:ttl:72 <CR>	ttl set to #	Default is 64. Range is 1-255.
setSettings: unsoliticedStatus: <on | off>	Enables or disables the reporting on unsolicited status to the divas.	setSettings: unsoliticedStatus: off <CR>	unsolicitedStatus set "off"	Default is on.
setSettings: unsoliticedStatusInterval: <seconds>	Determines time between sending unsolicited status packets in seconds.	setSettings: unsoliticedStatusInterval: 20 <CR>	unsolicitedStatusInterval set to #	Default is 10 seconds. Range is 10 to 2550 seconds.
setSettings:vlanNumber: <vlan>	Changes the VLAN number.	setSettings:vlanNumber: 1 <CR>	vlanNumber set to: 1	Default is 0 when **setSettings:vlan** is set to **off**, or 1 when set to **on**.
setSettings:vlan: <on | off>	Turns VLAN on/off. Forces VLAN number to 1 if not set.	setSettings:vlan:on <CR>	vlan set to "on"	Default is off.
ssforward:<channel>, [<frames>]	Skips a number of frames forward.	ssforward: 1, 3 <CR>	Single step forward: 3 frames.	<channel>: Number of the NVR channel to control. Use -1 or leave blank for all playing. <frames>: Number of frames to jump forward. Default is 1 (optional).
ssrewind:<channel>, [<frames>]	Skips a number of frames backward.	ssrewind: 1, 2 <CR>	Single step rewind: 2 frames.	<channel>: Number of the NVR channel to control. Use -1 or leave blank for all playing. <frames>: Number of frames to jump back. Default is 1 (optional).
stop:<channel>	Stops the currently playing recording (does not affect records).	stop: 1 <CR>	Playing stopped.	<channel>: Number of the NVR channel to use for playback. Use -1 or leave blank for all playing.

Command	Description	Command Example	Response Example	Notes
stream:<*channel*>, <*vid1stream*>, <*aud1stream*>, [<*vid2stream*>, <*aud2stream*>]	Changes the playback streams associated with the given channel.	stream:99, 0, 98, 0<CR>	Streams changed	<*channel*>: Channel number to change. <*vid1stream*>: Stream number of first video stream to use for playback. <*aud1stream*>: Set to 0 to follow vid1stream. <*vid2stream*>: Stream number of second video stream to use for playback (optional). <*aud2stream*>: Set to 0 to follow vid2stream (optional). *NOTE: In the current software version, audio MUST follow video. Always use 0 for <aud1stream> and <aud2stream>.*
time[:<*time*>]	Returns/sets system time.			*<time>:* Unix epoch time (i.e., Unix time, POSIX time, Unix timestamp). Enter <*time*> to set the system time. Otherwise, time is returned in seconds since January 1, 1970.
unkeep:<*recording*>	Marks a recording to allow it to be deleted.	unkeep:f.563BA353.index <CR>		<*recording*>: Filename of recording in **f.########.index** format, zero-based index number in list, or quoted description.
nplay[:<*channel*>, <*recording*>, <*loop*>, <*all*>, <*start*>, [<*end*>]]	Plays an NVR recording from the specified point or (if none specified) plays from the beginning or where it was paused.	nplay: 1, f.563BA353.index,1,0,5, 305 <CR>	Play started for recording: f.563BA353.index	Uses the following (optional) parameters if needed: <*channel*>: Number of the NVR channel to use for playback. <*recording*>: Filename of recording in **f.########.index** format or zero-based index number in list. <*loop*>: 1 = looping, 0=play once. <*all*>: 1 = all streams (dual play), 0=first stream only (default). <*start*>: Number of seconds from start to start playing. <*end*>: Number of seconds from start to end playing. *NOTE: With no parameters or with only the channel, the command will play the current recording (if loaded).*
nstop[:<*channel*>]	Stops the currently playing recording (does not affect records).	nstop: 1 <CR>	Stopping recording	<*channel*>: Number of the NVR channel to control. Use –1 or leave blank for all playing. *NOTE: This will "eject" the recording which means next time it is played, it will begin at the start of the recording.*
npause[:<*channel*>]	Pauses the currently playing recording.	npause: 1 <CR>	npause: 1	<*channel*>: Number of the NVR channel to use for pause. Use –1 or leave blank for all playing.

Command	Description	Command Example	Response Example	Notes
nforward[:<channel>, [<frames>]]	Puts the currently playing recording into fast forward using the optional given number of <frames> per second.	nforward: 1, 15 <CR>	Fast forward recording: 15x.	<channel>: Number of the NVR channel to control. Use –1 or leave blank for all playing. <frames>: Number of frames to jump forward per update. Maximum is 60 frames per second (optional). NOTE: If <frames> is left blank, reissuing this command will double the number of frames jumped.
nrewind[:<channel>, [<frames>]]	Puts the currently playing recording into rewind mode using the optional given number of <frames> per second.	nrewind: 1 <CR>	Rewind recording: 1x.	<channel>: Number of the NVR channel to control. Use –1 or leave blank for all playing. <frames>: Number of frames to jump back per update (optional). Maximum is 60 frames per second. NOTE: If <frames> is left blank, reissuing this command will double the number of frames jumped.
nssforward[:<channel>, [<frames>]]	Skips a number of frames forward.	nssforward: 1 <CR>	Single step recording: 1x.	<channel>: Number of the NVR channel to control. Use –1 or leave blank for all playing. <frames>: Number of frames to jump forward. Default is 1.
nssrewind[:<channel>, [<frames>]]	Skips a number of frames backward.	nssrewind: 1 <CR>	Single step back recording: 1x.	<channel>: Number of the NVR channel to control. Use –1 or leave blank for all playing. <frames>: Number of frames to jump back. Default is 1.
copy2usbstatus	Reports the status of a copy file to USB.	copy2usbstatus <CR>	Possible response messages include: • % complete • Idle • Error getting status	
copy2usbresult	Reports the result of the last copy file to USB.	copy2usbresult <CR>	Possible response messages include: • Completed successfully • Busy • Failed • Unknown Error	
copy2usb:<mpeg>	Copies the conversion to a USB drive.	copy2usb: f.563BA353.mpeg <CR>	Returns results of initiation of copy. Possible response messages include: • Starting to copy • Conversion file does not exist • No USB device detected • Error copying file • Index file not found • Copy to USB is busy • USB write error	<mpeg>: Filename of mp4 or mp3 to copy.

Command	Description	Command Example	Response Example	Notes
channellist	Returns all channels, and current status.	channellist <CR>	channel:0 isRec:1 recHold:0 recFile:f.52F3E5BB recDesc:N3000_120sec B recDuration:120 recStart:1391715772 recRemain:112 isPlay:0 playMode:idle playHold:0 playLoop:0 playFile: playDesc: playLen:0 playStart:0 playEnd:0 playAt:0 + channel:1 isRec:0 recHold:0 recFile: recDesc: recDuration:0 recStart:0 recRemain:0 isPlay:1 playMode:play playHold:0 playLoop:1 playFile:f.52E04EA2.index playDesc:StarTrekA playLen:120 playStart:0 playEnd:120 playAt:43 + … more entries … *	The fields of the **channellist** command's response are described in the *NVR Response to channellist Command* table on page 15.

NVR Response to channellist Command

Response	Description
The **chanellist** command returns all channels and the current status. This will vary in length depending on mode of the NVR (N3000 mode is the most data-intensive with ten channels). N1000 and N2000 modes will only contain channel 0. A "**+**" at the end of a record indicates more channel information will follow (i.e., channel:2 will follow channel:1), while an "*****" indicates that all information has been passed. Each record has the following fields:	
channel:0	Unique channel identifier (0-based)
isRec:1	Flag if recording (1), or not recording (0)
recHold:0	Flag if the recording is being held from starting (1), or can record at any time (0)
recFile:f.52F3E5BB	File being created when recording (blank when not recording)
recDesc:N3000_120secB	Description of recording in progress (blank when not recording)
recDuration:120	Length of targeted duration (0 when not recording)
recStart:1391715772	Time in seconds since midnight Jan 1, 1970 since the recording started (0 when not recording)
recRemain:112	Number of seconds until recording ends (0 when not recording)
isPlay:0	Flag if playing back recording (1), or not playing (0)
playMode:idle	State of the player on this channel (**idle** when not recording, **play** when playing a recording, **ff** when fast forwarding, **rewind** when rewinding, and **paused** when paused playback.
playHold:0	Flag if the player is being held from starting (1), or ready to play (0)
playLoop:0	Flag if the recording is to loop again when done (1), or to just end afterward (0)
playFile:	Name of the recording file being used for this playback (blank when no playback)
playDesc:	Description of the current recording being played back (blank when no playback)
playLen:0	Length of the recording being played back (regardless of when started), or zero when not playing
playStart:0	How far into the recording to start playback in seconds (0 for the very beginning is the default)
playEnd:0	How far into the recording to go until stopping (in seconds)
playAt:0	Current location in the recording being played back (in seconds)

NVR Response to getStatus Command

Response	Description	Notes
This table describes the fields found in the response for the **getStatus** command on an NVR. 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". Additional information may be contained before the response packet.		
SVSI_DVRGEN2:VDB010000454	Device type and serial number.	
NAME:Central NVR	Name of device.	Serial string with name (255 character max)
MAC:00:19:0B:00:0D:BE	Mac address of device.	
IP:169.254.34.55	IP address of device.	
NM:255.255.0.0	Subnet mask of device.	
GW:169.254.1.1	Gateway of device.	
IPMODE:AUTO IP	IP mode of device.	DHCP | STATIC | AUTO IP
SWVER:1/29/2017	Date of software version running on device.	
rel:1.1.43	Software release number.	

NVR Response to getStatus Command (Cont.)		
Response	**Description**	**Notes**
WEBVER:1465317624	Web version running on device.	
UPDATE:0	Status of software update.	0 = No updates attempted. 1 = Update successful. 2 = Update failed. 255 = Internal error.
UPDTRY:0	Software update in progress?	0 = No update in progress. 1 = Update in progress.
UPDFAILED:0	Software update failed?	0 = Update succeeded. 1 = Updated failed.
MBLIMIT:0	Space limit before auto delete occurs.	If disk space is less than this number, files are auto-deleted to make room for new files.
DVRMODE:2	Current mode of NVR.	0 = Undefined 1 = N1000 2 = N2000 3 = N3000 4 = N2400
S_PLAY<channel>A:<stream>	Designates stream number of playing channel.	Where: <channel> = Channel number (0-9) <stream> = Stream number for this channel
S_PLAY0B:<stream>	Designates stream number of playing channel when in N2000 mode, dual sync only.	<stream> = Stream number for this channel *NOTE: S_PLAY0A:<stream> and S_PLAY0B:<stream> apply to N2000 mode only (dual sync).*
S_REC<V | A><channel>A:<stream>	Designates stream number of recording channel.	Where: V = Video recording A = Audio recording. <channel> = Channel number (0-9) <stream> = Stream number. If audio is set to 0, then audio is following video.
S_RECV0B:<stream>	Designates stream number of recording channel when in N2000 mode, dual sync only.	<stream> = Stream number for this channel *NOTE: S_RECV0A:<stream> and S_RECV0B:<stream> apply to N2000 mode only (dual sync).*
ISREC:0000000000	Displays 0 or 1 for each of the ten channels (left to right) to indicate if a recording is currently active on that channel.	0 = No active recording on channel at this time. 1 = Channel is currently being recorded.
ISPLAY:0000000000	Displays 0 or 1 for each of the ten channels (left to right) to indicate if a recording is currently being played on that channel.	0 = No active recording being played on channel at this time. 1 = Recording currently being played on this channel.
ISRECHOLD:0000000000	Displays 0 or 1 for each of the ten channels (left to right) to indicate if a recording is currently on hold for that channel.	0 = Recording of this channel is not currently on hold. 1 = Recording of this channel is currently on hold.
ISPLAYHOLD:0000000000	Displays 0 or 1 for each of the ten channels (left to right) to indicate if playback of a recording is currently on hold for that channel.	0 = Recording playback on this channel is not currently on hold. 1 = Recording playback on this channel is currently on hold.
AUDIOON:1111111111	Displays 0 or 1 for each of the ten channels (left to right) to indicate if audio is on.	0 = Audio is muted. 1 = Audio is on.
FREE:521192943616	Displays free disk space in bytes.	
RAID:1	Current raid mounting status.	0 = Serious error. Contact tech support. 1 = Raid is mounted.

| NVR Response to getStatus Command (Cont.)		
Response	**Description**	**Notes**
INDEXDATE:1475610182	Unix time stamp of when master index was last modified.	
MPEGMODE:mp4	Displays the current MPEG conversion mode.	mp4 | mov
DIVASEN:1	Divas status messages enabled?	0 = Messages enabled. 1 = Messages disabled.
DIVASIP:10.206.16.11	Displays IP address of the divas controller for unsolicited messages.	
DIVASGEN1:0	N-Series software specific.	
VLANSET:0	VLAN set to on?	0 = VLAN is off. 1 = VLAN is on.
VLANNUM:1	Displays VLAN number.	
TTL:64	Displays current time to live counter value.	
MPEGPCNT:0	Percentage of MPEG conversion completed.	0-100
MPEGFILE:	Name of file being converted.	
MPEGDATE:1475605527	Unix time stamp of the last MPEG conversion.	
UNSOLST:1	Unsolicited status messages.	0 = Status messages disabled. 1 = Status messages enabled.
UNSOLSTINT:20	Unsolicited status message interval.	Time in seconds between status messages.
COPYPCT:0	Percentage of file copy completed.	0-100
APDDESC:1	Append file descriptions to filename when converting recordings?	0 = Do not include descriptions in filenames. 1 = Include descriptions in filenames.
PPDSTR:1	Include stream number in filename when converting recordings?	0 = Do not include stream numbers in filenames. 1 = Include stream numbers in filenames.
PPDTS:1	Include date and time-stamp in filename when converting recordings?	0 = Do not include date and time-stamp in filenames. 1 = Include date and time-stamp in filenames.
discoveryIP:239.254.12.16	IP address discovery packets are sent to (if enabled).	
enableDiscoveryPackets:on	Transmission of discovery packets enabled?	on | off
discoveryIntervalSec:10	Time in seconds between discovery packet transmission.	Valid range is 1-255 seconds.
discoveryPort:50019	Destination port for discovery packets.	Valid range is 10000-65535.
chassisID:mac e8:ed:f3:6f:83:13	Mac address of NVR.	
sysName:Not received	System name of the connected switch.	
sysDescr:Not received	System description of the connected switch.	
portID:ifname gi9	Port ID of the connected switch.	
portDescr:Not received	Port description of the connected switch.	
onlyNTP:0	Only allow Network Time Protocol (NTP) servers to set time?	0 = NVR can accept user time change requests. 1 = NVR derives time settings only from NTP server.
ntpserver1:0.north-america.pool.ntp.org	Designate NTP servers to be used by NVR.	

| NVR Response to getStatus Command (Cont.)		
Response	**Description**	**Notes**
ntpserver2:1.north-america.pool.ntp.org	Designate NTP servers to be used by NVR.	
ntpserver3:2.north-america.pool.ntp.org	Designate NTP servers to be used by NVR.	
snmpEnable:0	SNMP enabled?	0 = SNMP disabled. 1 = SNMP enabled.
debugMode:0	Debug mode on?	0 = Debug mode off. 1 = Debug mode on.
forceHTTPS:on	Force HTTPS on?	on | off

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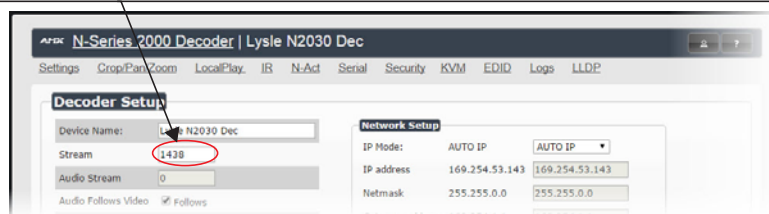
1. Log in to your unit's web interface and click the **Logs** link at the top of the page.
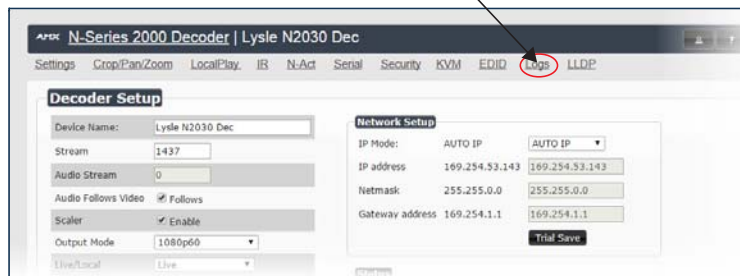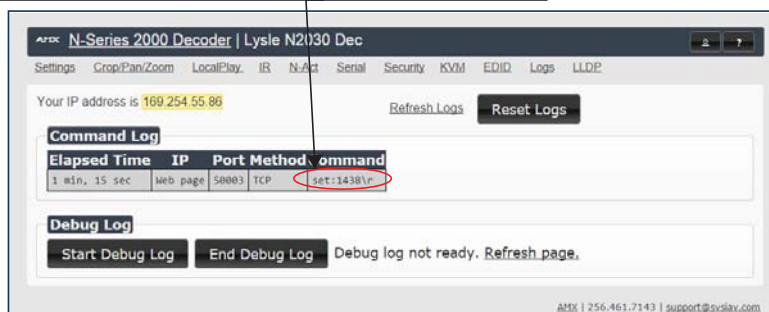

2. Click the **Reset Logs** button.
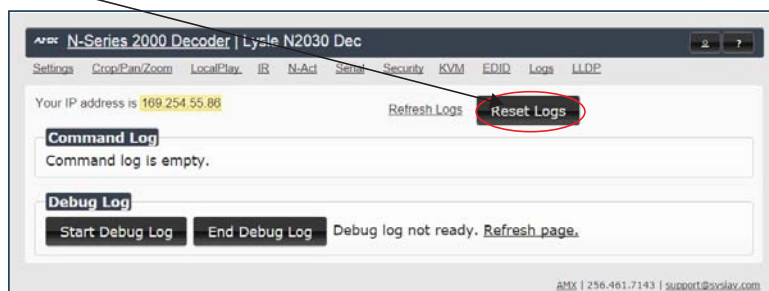
3. Change a setting. For this example, we are discovering the API command used to change the **Stream** setting.

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

Please contact technical support at svsiupport@harman.com or 256.461.7143 x9900 for any installation issues.