CSV File Use

N-Able provides the ability to document or update the configuration settings of multiple SVSI devices at once using CSV files. A configuration CSV file consists of the serial number, MAC address, and any number of configurable settings for each device. Leveraging CSV files can greatly reduce the time required to configure large installations.

Export CSV

Exporting a CSV is a great way to document the configuration of an SVSI installation or to create a CSV file that can be edited and imported to update settings. To export a CSV file using N-Able, follow these steps:

1. Ensure that all devices are online and listed in the 'Unit Management' tab of N-Able. (for more information, see the 'N-Able Tutorial' on AMX.com.)
2. From the N-Able main menu bar, select **N-Able > Export CSV** as shown in Figure 1.

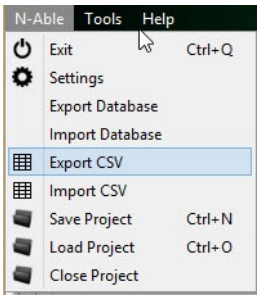

FIG. 1 Export a CSV File

3. Select each of the configuration settings that you would like included in the CSV file and press the 'OK' button.
4. Enter a name for the new file, choose where it will be saved, and press the 'Save' button.
5. The folder containing your CSV file is displayed. Double-click the file to open it. Figure 2 shows an example of a CSV file displayed in Excel.

	A	B	C	D	E	F	G	H	I	J	K	L
1	NAME	TYPE	MAC	SN	STREAM	IPMODE	IP	SUBNET	GW	MODE	AUDIOSTR	AUDIOEN
2	Dan1kdec_	N1-DEC	00:19:0B:00:	N121A03000	401	Static IP	169.254.3.	255.255.0.	169.254.1.	Live Play	0	0
3	Lysle N2030 Dec	N1-DEC	00:19:0B:CF:	N1222A0000	1437	Auto IP	169.254.5	255.255.0.	169.254.1.	Live Play	0	1
4	Production Test D	N1-DEC	00:19:0B:CF:	N1222A0000	90	Auto IP	169.254.1	255.255.0.	169.254.1.	Live Play	0	1
5	MitziTest N1233	N1-DEC-KVN	00:19:0B:80:	N1233A3000	1	Auto IP	169.254.1	255.255.0.	169.254.1.	Live Play	0	1
6	Cameron - N2251	N2-DEC-4K	00:19:0B:7F:	N225A01000	136	Auto IP	169.254.2	255.255.0.	169.254.1.	Live Play	0	0
7	Jordan - N2251B	N2-DEC-4K	00:19:0B:80:	N225A02000	139	Auto IP	169.254.2	255.255.0.	169.254.1.	Live Play	0	0
8	Lysle 4K Decoder	N2-DEC-4K	00:19:0B:7F:	N225A01000	1451	Auto IP	169.254.1	255.255.0.	169.254.1.	Live Play	0	1

FIG. 2 Sample CSV File

Import CSV

CSV files, whether they have been exported from N-Able or created from scratch, can be edited and imported through N-Able to update the settings in multiple SVSI devices simultaneously. A CSV file can contain any number of configurable settings but must contain the 'SN' (serial number) field for each device. To import a CSV file using N-Able, follow these steps:

1. Ensure that all devices are online and listed in the 'Unit Management' tab of N-Able. (for more information, see the 'N-Able Tutorial' on AMX.com.)
2. From the N-Able main menu bar, select **N-Able > Import CSV**
3. Select the file that you would like to import by pressing the 'Browse' button.
4. Press the 'Import' button
5. Reboot the devices to activate the new settings.

Table 1 provides descriptions of available CSV settings.

NOTE: Unless otherwise noted, these fields can be modified, saved, and then imported (as explained previously) to make batch configuration changes to the N-Series units.

TABLE 1 CSV Settings

Setting	Description
SN (Serial Number)	Unit's serial number. Read only.
NAME	Unit's name. By default, **NAME** is the unit's MAC address.
TYPE	Unit type (**N1-ENC/DEC**, **N2-ENC/DEC**, **N3-ENC/DEC**, etc.). Read only.
MAC	Unit's MAC address. Read only.
STREAM	Unit's stream number.
IPMODE	IP mode (**Auto**, **Static**, or **DHCP**).
IP	IP address. Can be modified if setting a new **Static** IP address.
SUBNET	Subnet mask setting (default is **255.255.0.0**). Can be modified if setting a new **Static** IP address.
GW	Gateway IP address (default is **169.254.1.1**). Can be modified if setting a new **Static** IP address.
MODE	Output mode (**Live** or **Local**).
SWVER	Displays software version (e.g., 1.3.16 or can show as a date). Read only.
WEBVER	Displays current web version (usually shows as a date in following format MM/DD/YYYY). Read only.
AUDIOSTREAM	Audio stream number. The default stream is **0**. If set to **0**, Audio Follows Video will be **Enabled**. If set to any other stream number, Audio Follows Video will be **Disabled**.
AUDIOENABLE	Audio state (**0** = enabled and **1** = disabled).
RESOLUTION	Scaler resolution settings.
2NDSTREAM	NVR second stream's stream number.
EXTREMEQUALITY	Extreme quality setting (**0** = off and **1** = on).
RS232BAUD	RS232 baud rate setting. Default is 9600. *Note: This setting is baud rate only. The rest of the settings are assumed as 8-None-1.*
HDMIAUDIOENABLE	Audio output. Determines if unit will output audio out the HDMI connection. Options are **Auto**, **On** or **Off**.
LASTFRAMEHOLD	If enabled, Decoder will hold last full frame that was received on stream loss or during stream switch (**0** = off and **1** = on).
DVIOFFSTREAMLOSS	DVI off on stream loss setting. If enabled, will turn off DVI output port on Decoder upon stream loss (**0** = off and **1** = on).
EDID	EDID resolution status. Can be used to set digital EDID
WP_STREAM_WIN0	Stream number assigned to Windowing Processor Stream 0.
WP_STREAM_WIN1	Stream number assigned to Windowing Processor Stream 1.
WP_STREAM_WIN2	Stream number assigned to Windowing Processor Stream 2.
WP_STREAM_WIN3	Stream number assigned to Windowing Processor Stream 3.
WP_STREAM_WIN4	Stream number assigned to Windowing Processor Stream 4.
WP_STREAM_WIN5	Stream number assigned to Windowing Processor Stream 5.
WP_STREAM_WIN6	Stream number assigned to Windowing Processor Stream 6.
WP_STREAM_WIN7	Stream number assigned to Windowing Processor Stream 7.

TABLE 1 CSV Settings (Cont.)

Setting	Description
WP_STREAM_WIN8	Stream number assigned to Windowing Processor Stream 8.
UNSOLICITEDIPADDR	IP Address used during unsolicited status.
DISCOVERYINTERVALSEC	Interval (in seconds) for how often the unit sends out discovery packets.
ENABLEDISCOVERYPACKETS	Discovery packets (**0** = off and **1** = on).
MEDIAPORT0	Multicast on Port 0 (**0** = off and **1** = on).
MEDIAPORT1	Multicast on Port 1 (**0** = off and **1** = on).
PORTSHUTDOWN1	Status of Port 1 (**0** = off and **1** = on).
GRATARP	Status of gratuitous ARP (**0** = off and **1** = on).
GRATARPINT	Gratuitous ARP interval in seconds.
UNSOLSTATUS	Enable unsolicited status (**0** = off and **1** = on).
UNSOLSTATUSINT	Unsolicited status interval in seconds.
USERMCMODE	Multicast override status (**0** = off and **1** = on).
USERMCIP	Multicast override IP address.
IRCOMMANDHOLDOFF	Delay between IR commands. Default is 25 milliseconds.
IRREPEATHOLDOFF	Repeat delay between IR commands. Default is 90 milliseconds.
USBENABLE	USB enable status (**0** = off and **1** = on).
FORCEHTTPS	Force HTTPS status (**0** = off and **1** = on).
SETTINGSLOCK	Settings lock. This locks the stream number and IP addressing on Encoder/Decoder (**0** = off and **1** = on).
STREAMAUDIO	Audio stream number.
MUTE	Audio mute status (**0** = off and **1** = on).
PLAYMODE	Play mode (**LIVE** or **LOCAL**).
YCBCROUTPUT	YCBCR output status (**0** = off and **1** = on).
GEN1COMPATIBILITY	Gen1 compatibility mode (**0** = off and **1** = on).
SIMPLIFIEDDVI	Simplified DVI connection (**0** = off and **1** = on).
LIVEAUDIOLOCALPLAY	If enabled, unit plays audio when in local play mode (**0** = off and **1** = on).
BYPASSSCALER	Can be set to bypass current scaler setting.
LINEOUTVOLLEFT	Line output volume level left (0-100).
LINEOUTVOLRIGHT	Line output volume level right (0-100).
NEGATIVEVSYNC	Invert vertical sync (**0** = off and **1** = on).
NEGATIVEHSYNC	Invert horizontal sync (**0** = off and **1** = on).
IGMPJOINSENABLE	IGMP join on stream loss (**0** = off and **1** = on).
IGMPJOINSINTERVAL	Delay in seconds between sending IGMP join messages (if **IGMPJOINSENABLE** is set to **1**).
AUTOSYNCCONTROL	Auto sync control (**0** = off and **1** = on).
AUTOSYNCMAXADJUSTRATE	Auto sync rate interval. Default is 80000000 microseconds.
MAINTAINASPECTRATIO	Maintain aspect ration setting. Used to maintain source aspect ratio when scalers are set.

TABLE 1 CSV Settings (Cont.)

Setting	Description
LINEINGAINLEFT	Pre-input cut of left input audio (analog).
LINEINGAINRIGHT	Pre-input cut of right input audio (analog).
AUDIODELAY	Audio delay status in microseconds. Default is 23.
PKTTTL	Status of TTL (Time-To-Live) for audio and video packets.
PKTDSCP	Audio and video DSCP (Differential Service Code Point) setting.
IMAGEQUALITY	Image quality setting. The lower the number, the more compressed the image is (0-100%).
MOTIONQUALITY	Motion quality setting. The higher the number, the higher the frame rate to a max of 60fps.
AUDIOINPUTTYPE	Audio input. **UNBALANCED** or **BALANCED** for analog input.
TXSAMPLERATE	Audio rate in Hz (**44100** or **48800**).
TXEXTRAHOFFSET	Number of pixels to shift the screen left to right (-4 to 4). *Note: Enter even numbers only to prevent red/blue color swapping.*
TXEXTRAVOFFSET	Number of pixels to shift the screen up and down (-100 to 100).
SWAPCBCR	Swap Cb Cr (**0** = off and **1** = on).
COLORSPACECOR	Color space settings for the Encoder (YcbCr, RGB). Can be disabled, enabled, or selected automatically based on the source (**0**, **1**, or **AUTO**). *Note: The AUTO setting is not supported by all models.*
USEHPFORNONSUPMODE	Enable to cause the Encoder to use a custom image whenever an unsupported video mode is supplied to it (**0** = off and **1** = on).
UNCOMPRESSEDMODE	Uncompressed mode (**0** = off and **1** = on).
REDBRIGHTNESS	Red value in RGB. Use to lower or raise the value. Must be set via CSV import.
GREENBRIGHTNESS	Green value in RGB. Use to lower or raise the value. Must be set via CSV import.
BLUEBRIGHTNESS	Blue value in RGB. Use to lower or raise the value. Must be set via CSV import.
SOGWINDOW	Slider sync on green sensitivity.
YCBCROUTPUTPASSTHRU	For color conversion. Forces RGB based on connected device setting. Default and preferred setting is off (**0** = off and **1** = on).
SIMPLEDVIDETECTPASSTHRU	Detected HDMI connection status solely on Hot Plug Detection. Enable to help prevent display from going to sleep (**0** = off and **1** = on).
HDMIAUDIOPASSTHRU	Audio output over HDMI status. Enable to not allow audio over HDMI. Can be set to auto, off or on (**AUTO**, **0**, or **1**).
NEGATIVESYNCSPASSTHRU	Used to invert horizontal and vertical sync to output display on pass-thru port (**0** = off and **1** = on).
ADCLEFTGAIN	Post Encode boost to audio signal on left channel (0-60).
ADCRIGHTGAIN	Post Encode boost to audio signal on right channel (0-60).
GEN1OUTPUTMODE	Gen 1 compatibility V-Series output mode. Enable when outputting to V-Series Decoder from N2000 Series Encoder.
N2121COMPATIBILITY	N2121 compatibility mode. Enable when using Gen 3 devices (**0** = off and **1** = on).
ENCRYPTEDAUDIO	Encrypted audio setting (**0** = off and **1** = on).
RELAXEDANALOGINPUTTIMING	Enable to allow small variances in analog input. This can help avoid video interruption (**0** = off and **1** = on).

TABLE 1 CSV Settings (Cont.)

Setting	Description
MPCENABLE	MPC (Minimal Proprietary Compression) mode status. Applies only on N1122/N1133 units (**0** = off and **1** = on).
VIDEOSOURCE	Video input source (either **VGA** or **HDMI**).
NTPSERVER1	IP address of NTP (network time protocol) server 1.
NTPSERVER2	IP address of NTP (network time protocol) server 2.
NTPSERVER3	IP address of NTP (network time protocol) server 3.
MANUALDNS	Manual DNS status (**0** = off and **1** = on).
DNSSERVER1	IP address of DNS (domain name server) 1.
DNSSERVER2	IP address of DNS (domain name server) 2.
SENDSCHEDULE	Send schedule for N3000 status.
SENDSTARTTIME	Send start time for N3000 (USB on-board recording).
SENDENDTIME	Send end time for N3000 (USB on-board recording).
SENDUSERNAME	Send user name for N3000 (USB on-board recording).
SENDPORT	Send port for N3000 (USB on-board recording).
SENDVALIDATE	Send validate for N3000 (**0** = off and **1** = on).
SENDMETHOD	Send method for N3000.
SENDAUTODELETE	Send auto delete for N3000 (**0** = off and **1** = on).
SENDCONVERTMP4	Send convert mp4 for N3000 (**0** = off and **1** = on).
SENDDESTADDR	Send destination address for N3000.
RECORDBASENAME	Record base name for N3000.
SENDPATH	Send path for N3000.
UNICASTMODE	Unicast mode for N3000 (**0** = off and **1** = on).
UNICASTDESTIPADDR	Unicast destination IP address for N3000 and N4321 ATR/ATC.
AUDIOBITRATE	Audio bit rate for N3000.
XPORTPORT	UDP port number for N3000.
STREAMURL	Stream URL for N3000.
RTSPPORT	RTSP port number for N3000.
RTCPPORT	RTCP port number for N3000.
VIDDETECTMODE	Input video detection mode.
STREAMPCMAUDIO	Stream PCM audio for N3000 (**0** = off and **1** = on).
GOPWIDTH	GOP width (I-frame frequency).
XPORTSTREAM	Transport stream (**0** = off and **1** = on).
RTPENCAP	RTP encapsulation status (**0** = off and **1** = on).
ENCODERMODE	Encoder output mode.
FORCEMULTICAST	Generate multicast stream.
HTTPFILEDURSEC	HTTP file duration in seconds.

TABLE 1 CSV Settings (Cont.)

Setting	Description
STREAM_U	Uncompressed stream number (4K units).
STREAM_C	Compressed stream number (4K units).
P0_COMPRESSED	Compressed output on P0 copper port (4K units).
P1_COMPRESSED	Compressed output on P1 fiber port (4K units).
P1_UNCOMPRESSED	Uncompressed output on P1 fiber port (4K units).
HOMEPAGE	N-Touch homepage address.
BRIGHTNESS	N-Touch wall brightness.
SLEEPDELAY	N-Touch sleep delay timer.
ENABLEWIRELESSAP	Enable wireless AP on N-Touch.
ENABLEBLUETOOTH	Enable bluetooth on N-Touch.
TXNAME	Set Encoder (TX) name on N4321 ATR/ATC.
RXNAME	Set Decoder (RX) name on N4321 ATR/ATC.
MASTERVOLLEFT	Set master volume left on N4321 ATR/ATC.
MASTERVOLRIGHT	Set master volume right on N4321 ATR/ATC.
HEADPHONEVOLLEFT	Set headphone volume level left on N4321 ATR/ATC.
HEADPHONEVOLRIGHT	Set headphone volume level right on N4321 ATR/ATC.
TXINPUTBALANCED	Set ATR analog input type to balanced.
RELAY1CLOSED	Close relay 1 on N4321 ATR/ATC.
RELAY2CLOSED	Close relay 2 on N4321 ATR/ATC.
RELAYINTERLOCK	Enable N4321 ATR/ATC relay interlock.
PHANTOMPOWER	Enable phantom power on N4321 ATR/ATC.
UNSOLICITEDSTATUSINTERVAL	Set to determine how often (in seconds) the unit reports status packets.
AUDIODELAYRX	Audio delay (in seconds) on N4321 ATR/ATC Receive (RX).
CAPTURESAMPLERATE	Status of capture rate on N4321 ATR/ATC.
UNICASTDESTIPADDR2	Second unicast destination IP address for N4321 ATR/ATC.
RXUNICASTMODE	Receive (RX) unicast mode for N4321 ATR/ATC (**0** = off and **1** = on).
DVRMODE	Status of NVR mode (**1**= N1K, **2** = N2K, **3** = N3K).
STREAM1A **STREAM2A** **STREAM3A** **STREAM4A** **STREAM5A** **STREAM6A** **STREAM7A** **STREAM8A** **STREAM9A**	NVR N3000 output mode stream 2-10 information.
MPEGMODE	NVR conversion mode (**MP4** or **MOV**).
GEN1STATPACKET	NVR Gen 1 status packet.
APPENDDESC	Use to append description to NVR recording name.

TABLE 1 CSV Settings (Cont.)

Setting	Description
PREPENDTIMESTAMP	Use to pre-pend a timestamp to NVR recording name.
PREPENDSTREAM	Use to pre-pend the stream number to NVR recording name.
ONLYNTP	Set NVR to use NTP only. This is recommended if using an NTP server.
VIDRTCPPORT	Port number status for RTC N3000.
SUPPORTBFRAMES	N3000 support B-frames for N3000 (**0** = off and **1** = on).
DECODERMODE	Set N3000 Decoder mode (**SVSIEncoder** or **URL** mode)
DISABLECLOCKSYNC	Disable clock sync for N3000.

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