

API Specification Overview 2.x.x

The units are capable of being controlled from a variety of third-party manufacturers, supported systems include Crestron, Extron, AMX, RTI, QSC and Symterix. The API is a human readable key value pair accessible via, HTTP GET/POST, UDP unicast, and UDP multicast. Please note that although most of the HTTP examples below are shown as GET for simplicity, use of POST for HTTP API is recommended. UDP API is more efficient if your control system supports it.

When using the API, it is important to keep in mind that all changes are volatile. This means that without a save, changes will be lost upon reboot!

All commands start with CMD=START and end with CMD=END to allow multiple key value pairs per command sequence. All keys and values are case sensitive.

**Architecture:**

Key Value System	Port/IP Address	Notes
HTTP	Port 80	
UDP Socket	Port 8000	Will listen on unicast and multicast
Multicast Address	226.0.0.19	
HTTP GET	Port 80	Queries
HTTP POST	Port 80	Set values
&		Separates Key Value Pairs
=		Separates Keys and Values
CMD=START		Start of all commands
CMD=END		End of all commands

**HTTP GET:**

Require authentication (Default: username=admin, password=admin)

**Example Query** http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.ALL=TRUE&CMD=END

**HTTP POST:**

**Example:** Set decoder to connect to the encoder at 192.168.8.101 and display the stream

1. URL: http://192.168.8.101/cgi-bin/wapi.cgi
2. Request Header: "Content-Type", "application/x-www-form-urlencoded"
3. Request Header: "Authorization", "Basic " + Base64EncodedString("admin:admin") this evaluates to "Basic YWRtaW46YWRtaW4="

4. Post Data:

"CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=FALSE&STREAM.CON  
NECT=TRUE&CMD=END"

**Example:** Flash Unit LEDs

**GET:**

http://admin:admin@192.168.8.101/cgi-  
bin/wapi.cgi?CMD=START&UNIT.ID=ALL&UNIT.FU=TRUE&CMD=END

**POST:**

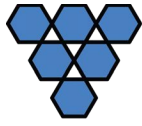
1. http://192.168.8.101/cgi-bin/wapi.cgi
2. Request Header: "Content-type", "application/x-www-form-urlencoded"
3. Request Header: "Authorization", "Basic " + Base64EncodedString("admin:admin") this evaluates to Basic YWRtaW46YWRtaW4=
4. POST Data: "CMD=START&UNIT.ID=ALL&UNIT.FU=TRUE&CMD=END"

**Example Response:** &API.STATUS=SUCCESS\_UTILITY\n

**Key and Values Table (alphabetical):**

**Audio:**

Key	Default Value	Values	Applies To:	Notes
AUDIO.DAC_MUTE	FALSE	TRUE, FALSE	Wall Plate, DuetD-2	Mutes/Unmutes the balanced audio output (rear of unit).
AUDIO.DAC_MUX	None	TRUE, FALSE	Wall Plate, DuetD-2	Determines the source of audio for the analog audio outputs (balanced and unbalanced) of the wall plate. HDMI or DANTE.
AUDIO.MUTE	FALSE	TRUE, FALSE	Wall Plate, DuetD-2	Mute/Unmute the audio in the HDMI output for monitors where the volume may get inadvertently set.



AUDIO.VOLUME	80	0-100	ALL	Set the analog volume. For Encoders it sets the input volume, for Decoders, the output volume.
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**Bluetooth (DuetE-WPBT only):**

Key	Default Value	Values	Applies To:	Notes
BT.BUTTON_ENABLED	FALSE	TRUE, FALSE	Wall Plate Bluetooth	Enables or disables the BT button for pairing.
BT.DISCONNECT	None	TRUE	Wall Plate Bluetooth	Disconnect the currently connected Bluetooth device, if any.
BT.FORGET	None	TRUE	Wall Plate Bluetooth	Forget all paired devices, this will also disconnect any active devices.
BT.LED_MODE	AUTO	AUTO, OFF, ON	Wall Plate Bluetooth	If ON, LED is forced ON, OFF is forced OFF, AUTO is flashing when waiting to pair, and solid when paired.
BT.NAME	DuetE-WP-BT	String up to 32 characters	Wall Plate Bluetooth	Set the Bluetooth Name for this device.
BT.OFF	None	TRUE	Wall Plate Bluetooth	Turns off the Bluetooth Module
BT.ON	None	TRUE	Wall Plate Bluetooth	Turns on the Bluetooth Module
BT.PAIR	None	TRUE, FALSE	Wall Plate Bluetooth	Enter Bluetooth pairing mode.
BT.SET_VOLUME	None	0-15	Wall Plate Bluetooth	Sets the A2DP volume, if available, of the BT source device.

**Example:** Enter Bluetooth Paring Mode

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&BT.PAIR=TRUE&CMD=END

**Example Response:** &BT.PAIR=TRUE&API.STATUS=SUCCESS\n

**POST:**

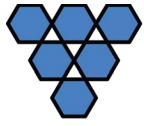
1. http://192.168.8.101/cgi-bin/wapi.cgi
2. Request Header: "Content-type", "application/x-www-form-urlencoded"
3. Request Header: "Authorization", "Basic " + Base64EncodedString("admin:admin")  
this evaluates to Basic YWRtaW46YWRtaW4=
4. POST Data: "CMD=START&UNIT.ID=ALL&BT.PAIR=TRUE&CMD=END"

**Dante:**

Key	Default Value	Values	Applies To:	Notes
DANTE.DEVICE_NAME	None	Any string up to 64 characters	Duet	Read Only
DANTE.REBOOT	None	TRUE	Duet	Reboots Dante UltimoX chip
DANTE.SET_DEVICE_NAME	None	Any string up to 64 characters	Duet	This is used to change the DEVICE_NAME of the Duet Dante Module

**Network:**

Key	Default Value	Values	Applies To:	Notes
IP.ADDRESS	None	Any valid unicast address	All	Query always returns current active value. This sets static IP address when IP.MODE=static



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NETWORK AUDIO VIDEO

IP.DNS_SERVER	None	Any valid unicast address	All	Query always returns current active value
IP.GATEWAY	None	Any valid unicast address	All	Query always returns current active value
IP.MODE	dhcp	dhcp, static	All	Changes unit IP mode between DHCP and Static
IP.NETMASK	None	Any valid netmask	All	Query always returns current active value
IP.STATIC_ADDRESS	None	Any valid unicast address	All	Read Only
IP.STATIC_DNS_SERVER	None	Any valid unicast address	All	Read Only
IP.STATIC_GATEWAY	None	Any valid unicast address	All	Read Only
IP.STATIC_NETMASK	None	Any valid netmask	All	Read Only
IP.VLAN_TAG_DANTE	0	1 to 4095	ALL	802.1q tag for the Dante VLAN. 0 = disabled, no tagging of Dante traffic.
IP.VLAN_TAG_STREAM	0	1 to 4095	Encoder	802.1q tag for the AV Stream VLAN. 0 = disabled, no tagging of AV Stream traffic.
IP.VLAN_TRUNK_MODE	False	TRUE, FALSE	ALL	When TRUE (and valid VLAN IDs set in the tags) the VLAN tags will be applied to encoder and Dante traffic.

**Query:**

Key	Default Value	Values	Applies To:	Notes
QUERY.ALL	None	TRUE	ALL	Query all parameters
QUERY.AUDIO_INFO	None	TRUE	ALL	Query audio info, includes source (i.e. HDMI), type (i.e. LPCM), sample frequency, and sample size
QUERY.BT_STATUS	None	None	Wall Plate Bluetooth	Return current status of the BT interface
QUERY.KEY	None	Key	ALL	Query the value of the specified key
QUERY.LINK_INFO	None	TRUE	ALL	Query connection link speed (i.e. 1G)
QUERY.LLDP_LOCAL_INFO	None	TRUE	ALL	Query the current LLDP (Link Layer Discovery Protocol) status of local ports.
QUERY.LLDP_NEIGHBOR_INFO	None	TRUE	ALL	Query the current LLDP (Link Layer Discovery Protocol) status that was received from neighboring devices.
QUERY.NETWORK_INFO	None	TRUE	ALL	Query current local network information, including local and neighboring LLDP information.
QUERY.STATUS	None	TRUE	ALL	Query just to see if the unit is responding to API calls

QUERY.VIDEO_TIMING	None	TRUE	ALL	Returns video timing information. "Not Available" for Encoder indicates no HDMI video, for Decoder no IP stream
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**Example:** Query Input Resolution (Encoder)

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.VIDEO\_TIMING=TRUE&CMD=END

**Example Response:** VIDEO.TIMING=Timing Table: Serial Number[0x006B] [3840]X[2160] [30]Hz\n\tPixel Rate: 296703KHz, Htotal: 4400, Vtotal: 2250\n\tHbpc: 296, Vbpc: 72, Hsw: 88, Vsw: 10\n\tProgressive, HPos, VPos\nColor Depth: [0]\nHDCP: [On], version 1.x\nHDCP Convert: Always HDCP 1.x\nCapture Windows: [1920]X[2160] [60]Hz\nCompress Windows: [1920]X[2160] [60]Hz\nActive Windows: [1920]X[2160] [60]Hz\nCRT Windows: [3840]X[2160]\nScan Mode: Progressive\nSignal Type: HDMI 16:9&QUERY.VIDEO\_TIMING=OK&API.STATUS=SUCCESS\_QUERY\n

**Example:** Query Status (Is the unit responding to commands?)

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.STATUS=TRUE&CMD=END

**Example Response:**

v\_input\_select=fixed&v\_type=2&hostnamebydipswitch=n&BT.BUTTON\_ENABLED=TRUE&BT.ENABLED=TRUE&IP.MODE=static&VIDEO.EDID=05\_2160P30\_LPCM\_2CH&UNIT.ID=DuetE-WP-BT-104&AUDIO.DAC\_MUTE=TRUE&AUDIO.DAC\_MUX=HDMI&AUDIO.DAC\_VOLUME=80&DANTE.DEVICE\_NAME=DuetE-WP-BT-001416&IP.STATIC\_ADDRESS=192.168.8.101&IP.STATIC\_DNS\_SERVER=8.8.8.8&IP.STATIC\_GATEWAY=192.168.8.1&IP.STATIC\_NETMASK=255.255.255.0&VLAN.TAG\_DANTE=1&IP.VLAN\_TAG\_DANTE=1&VLAN.TAG\_ENCODER=1&IP.VLAN\_TAG\_STREAM=1&VLAN.TRUNK\_MODE=FALSE&IP.VLAN\_TRUNK\_MODE=FALSE&SERIAL.BAUDRATE=115200&SERIAL.DATABITS=8&SERIAL.PARITY=n&SERIAL.STOPBITS=1&STREAM.BIT\_RATE=auto&STREAM.DEST\_PREFIX=225&STREAM.FRAME\_RATE=60&STREAM.QOS\_DSCP=26&STREAM.VOLUME=80&AUDIO.VOLUME=80&USB.KVM\_FAST=FALSE&VIDEO.HDCP\_FORCE\_ON=TRUE&UNIT.MODEL=DuetE-WP-

```
BT&UNIT.DUET_INSTALLED=TRUE&UNIT.MAC_ADDRESS=00:0E:14:60:05:24&VW.ENABLED=TRUE&USB.ENABLED=FALSE&STREAM.MODE=multicast&SERIAL.ENABLED=FALSE&USB.MODE=link&IR.ENABLED=FALSE&STREAM.IROUTING=FALSE&VIDEO.HDCP_FORCE_OFF=FALSE&AUDIO.MUTE=FALSE&IP.DHCP_STATUS=invalid&IP.ADDRESS=192.168.8.101&IP.NETMASK=255.255.255.0&IP.GATEWAY=192.168.8.1&IP.DNS_SERVER=8.8.8.8&MAC.ADDRESS=00:0E:14:60:05:24&UNIT.SERIAL=186-003-001416&UNIT.FIRMWARE=2.3.144&UNIT.FIRMWARE_DATE= Tue, 01 Mar 2022 16:02:22 -0800&STREAM.AUDIO=DANTE&QUERY.ALL=TRUE&UNIT.ID=DuetE-WP-BT-104&QUERY.STATUS=OK&API.STATUS=SUCCESS_QUERY\n
```

**Example:** Query Encoder IP Address to Which a Decoder Is Tuned (STREAM.HOST)

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.KEY=STREAM.HOST&CMD=END
```

**Example Response:** &STREAM.HOST=192.168.8.101&API.STATUS=SUCCESS\_QUERY\n

**Example:** Query LLDP Neighbor Information

**GET:**

```
http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.LLDP_NEIGHBOR_INFO=TRUE&CMD=END
```

**Example Response:** -----  
 \nLLDP neighbors:\n-----  
 \nInterface: eth0, via: LLDP, RID: 1, Time: 8 days, 22:10:21\n Chassis: \n ChassisID: mac 44:a5:6e:59:38:1c\n SysDescr: M4250-10G2XF-PoE+ 10x1G PoE+ 240W and 2xSFP+ Managed Switch, 13.0.2.24, 1.0.0.2\n MgmtIP: 192.168.8.8\n Capability: Bridge, on\n Capability: Router, on\n Port: \n PortID: mac 44:a5:6e:59:38:1e\n PortDescr: 0/6\n TTL: 120\n Unknown TLVs:\n TLV: OUI: 8C,3B,AD, SubType: 101, Len: 8  
 00,00,00,03,00,00,00,03\n-----  
 -&API.STATUS=SUCCESS\_QUERY\n

**Example:** Query Encoder GPIO Input 1 Status

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&QUERY.KEY=UNIT.GPIO_IN1&CMD=END
```

**Example Response:** &UNIT.GPIO\_IN1=0&API.STATUS=SUCCESS\_QUERY\_X\n

**Note:** UNIT.GPIO\_IN1=0 : Low/Off, UNIT.GPIO\_IN1=1 : High/On



**Serial over IP:**

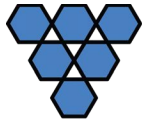
Key	Default Value	Values	Applies To:	Notes
SERIAL.BAUDRATE	38400	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	ALL	Sets the baud rate being used by serial connection.
SERIAL.DATABITS	8	5, 6, 7, 8	ALL	Set the data bits being used by the serial connection.
SERIAL.ENABLED	FALSE	TRUE, FALSE	ALL	Turn on or off RS232 over IP
SERIAL.PARITY	n	n, o, e	ALL	Set the parity bits being used by the serial connection.
SERIAL.STOPBITS	1	1, 2	ALL	Set the stop bits being used by the serial connection.

**Example:** Enable RS-232 (Decoder)

**GET:**

`http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&SERIAL.ENABLED=TRUE&CMD=END`

**Example Response:** `&API.STATUS=SUCCESS\n`



**Stream:**

Key	Default Value	Values	Applies To:	Notes
STREAM.AUDIO	HDMI (E), STREAM (D)	HDMI, DANTE, ANALOG, STREAM	ALL	The DuetE/D series can use HDMI, Analog, or Dante audio sources. <ul style="list-style-type: none"><li>• The DuetE encoder uses the STREAM.AUDIO to select the source of audio sent over the AV over IP stream.</li><li>• The DuetD decoder uses the STREAM.AUDIO to select what audio is sent out the HDMI output.</li></ul>
STREAM.BIT_RATE	auto	auto, 200M, 150M, 100M, 50M	ENCODERS	The bit rate ( <b>STREAM.BIT_RATE</b> ) defaults to <b>auto</b> . This means that the encoder will choose the optimal bit rate for the input resolution and content. This can range up to a maximum of 850Mbps for highly complex 4K video. If you are trying to limit bandwidth used, you can set this to 200Mbps (this gives excellent 1080P60) down to 50Mbps. You can experiment with your normal content and see what bit rate setting is best for your use case, or just leave this in <b>auto</b> if you are not limited on bandwidth between switches.

STREAM.CONNECT	None	TRUE	DECODERS	Connects and disconnects decoder from video stream.
STREAM.FRAME_RATE	60	1-60	ENCODERS	The frame rate ( <b>STREAM.FRAME_RATE</b> ) of the incoming video may be reduced to allow higher resolutions at lower bandwidth. For instance, you might have 1080P60 content that is slow-moving scenes or other less complex video. You could then use the 50% setting to lower the frame rate to 30fps. You could also set the stream bit rate to a lower value to make sure that the stream only uses that amount of bandwidth.
STREAM.HOST	None	Any valid Unicast IP Address	DECODERS	Encoder IP address to which a decoder is tuned
STREAM.MODE	multicast	multicast, unicast	ALL	Changes steam mode between multicast and unicast.
STREAM.QOS_DSCP	26	0-63	ENCODERS	Used to set an explicit DSCP tag for encoder stream data.
STREAM.RTP_ADDRESS	None	Valid Unicast Address	ENCODERS	Set IP address used for RTP audio (QSC Media Stream Receiver)

STREAM.RTP_PORT	None	Valid Port	ENCODERS	Used to set the port used for RTP audio. <i>Note: <b>must be even number</b> and be between 1024 and 65535</i>
STREAM.VIDEO	HDMI1	AUTO, HDMI1, HDMI2, USB-C	DuetE-2	Sets the input source for DuetE-2 AV stream.
STREAM.VIDEO_PRIORITY	1	1, 2, 3, 4, 5, 6	DuetE-2	Sets the input priority of a DuetE-2 when STREAM.VIDEO is set to AUTO. 1= HDMI1 HDMI2 USB-C, 2= HDMI1 USB-C HDMI2, 3= HDMI2 HDMI1 USB-C, 4= HDMI2 USB-C HDMI1, 5= USB-C HDMI1 HDMI2, 6= USB-C HDMI2 HDMI1

**Example:** Change Decoder source

**Source 1:** Wall Plate Encoder (192.168.8.101)

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Source 2:** Wall Plate Encoder (192.168.8.102)

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Example:** Change source group of Decoders (example uses 4 Decoders, each needs to be sent its own command)

**Source 1:** Wall Plate Encoder (192.168.8.101)

**Decoder (192.168.8.111):**

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 2 (192.168.8.112):**

**GET:**

```
http://admin:admin@192.168.8.112/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 3 (192.168.8.113):**

**GET:**

```
http://admin:admin@192.168.8.113/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 4 (192.168.8.114):**

**GET:**

```
http://admin:admin@192.168.8.114/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END
```

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n



**Source 2:** Wall Plate Encoder (192.168.8.102)

**Decoder 1 (192.168.8.111):**

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 2 (192.168.8.112):**

**GET:**

http://admin:admin@192.168.8.112/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 3 (192.168.8.113):**

**GET:**

http://admin:admin@192.168.8.113/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 4 (192.168.8.114):**

**GET:**

http://admin:admin@192.168.8.114/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=FALSE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Example:** Change DuetE or Wall Plate Encoder stream audio

**Dante:**

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.AUDIO=DANTE&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**HDMI:**

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.AUDIO=HDMI&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Analog:**

**GET:**

http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.AUDIO=ANALOG&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Example:** Change DuetD audio

**Stream:**

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.AUDIO=STREAM&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Dante:**

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.AUDIO=DANTE&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Example:** Enable RTP stream (STREAM.RTP\_ADDRESS= IP address RTP stream is being transmitted from, STREAM.RTP\_PORT= must be even number and above port #1024)

**GET:**

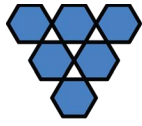
http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.RTP\_ADDRESS=192.168.8.101&STREAM.RTP\_PORT=1028&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Unit:**

Key	Default Value	Values	Applies To:	Notes
UNIT.DUET_INSTALLED	FALSE	TRUE, FALSE	ALL	TRUE if Duet Module Installed
UNIT.FACTORY_DEFAULT	None	TRUE	ALL	Returns unit to factory default settings
UNIT.FIRMWARE	None	Any string up to 64 characters	ALL	Read Only
UNIT.FIRMWARE_DATE	None	Any string up to 64 characters	ALL	Read Only
UNIT.FU	None	TRUE	ALL	This Flash Unit command will flash front panel LEDs to chase up and down for 10 cycles (About 10 seconds)
UNIT.GPIO_OUT1	None	TRUE, FALSE	DuetE-2, DuetD-2	Sets GPIO output 1 to either TRUE (High) or FALSE (Low)
UNIT.GPIO_OUT2	None	TRUE, FALSE	DuetE-2, DuetD-2	Sets GPIO output 2 to either TRUE (High) or FALSE (Low)





				<i>Note: Only available when IR is disabled</i>
UNIT.ID	None	Any string up to 64 characters	ALL	Read Only This is used in commands to identify a specific unit Read Only
UNIT.IR_SEND	None	Command for the device being controlled	DuetE-WP, DuetE-2, DuetD-2	Used to send IR commands from an encoder or decoder
UNIT.LOCATION	None	Any string up to 64 characters	ALL	Used to set a location field for reference
UNIT.MAC_ADDRESS			All	Read Only
UNIT.MODEL	None	D4000, D4100, DuetD, E4000, E4100, DuetE	ALL	Read Only
UNIT.PASSWORD	None	Any string up to 64 characters	ALL	This changes the password. This is dangerous and if
				password is lost, unit may have to return to the factory.
UNIT.REBOOT	None	TRUE	ALL	Reboots the unit
UNIT.SAVE	None	TRUE	ALL	Saves all parameters
UNIT.SERIAL	None	Value of unit serial number	ALL	Read Only Accessed only through QUERY.ALL

UNIT.SET_ID	None	Any string up to 64 characters	ALL	This is used to change the UNIT.ID of a unit
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**USB over IP:**

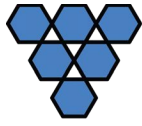
Key	Default Value	Values	Applies To:	Notes
USB.ENABLED	TRUE	TRUE, FALSE	ALL	Enable USB over IP functionality
USB.KVM_FAST	TRUE	TRUE, FALSE	ALL	Set to TRUE when using multiple keyboards and mice. Set to FALSE when using touchscreens. KVM Fast <b>does not</b> function with touchscreens.
USB.MODE	link	auto, link, request	ALL	Sets the mode for the USB over IP functionality

**Example:** Enable USB over IP

**GET:**

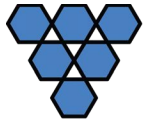
http://admin:admin@192.168.8.101/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&USB.ENABLED=TRUE&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n



**Video:**

Key	Default Value	Values	Applies To:	Notes
VIDEO.EDID	DEFAULT	01_DEFAULT, 02_DEFAULT_LPCM, 03_1080P60_LPCM_2CH, 04_1080P60_LPCM_268CH, 05_2160P30_LPCM_2CH, 06_2160P30_LPCM_268CH, 07_720P60_LPCM_2CH, 08_2160P_1080P_LPCM_2CH, 09_1080P59_LPCM_2CH, 10_1080P50_LPCM_2CH, 11_1920x1200P60_LPCM_2CH, 12_1920x1024P60_LPCM_2CH, 13_1024x768P60_LPCM_2CH, 14_3840x1080P60_LPCM_2CH, CUSTOM	DECODERS	CUSTOM is only shown when a custom EDID file has been uploaded. It may not be selected directly.
VIDEO.FORMAT	SOURCE	(Codes from Video Format Table below)	DECODERS	This value controls the output scaling of the decoder. See Table 1 for Values to Codes
VIDEO.GENLOCK	False	True, False	DECODERS	Allows the decoder output to free run and not be genlocked to the source encoder. Useful for some projectors that cannot accommodate wide clock range. Should be set to TRUE for video wall setups.
VIDEO.HDCP_FORCE_OFF	False	True, False	ENCODERS	Tells the source device that the encoder will not accept HDCP encrypted content. It cannot be



				used to remove HDCP from sources.
VIDEO.HDCP_FORCE_ON	TRUE for D4X00 FALSE for E4X00	TRUE, FALSE	ALL	This determines whether a unit forces HDCP for all sources or sinks (TRUE) or allows non-encrypted to go through natively (FALSE). When FALSE switching can be slow if you need to renegotiate the HDMI link.
VIDEO.HDMI_OUT	HDMI1	AUTO, HDMI1, HDMI2, USB-C	DuetE-2	Sets the input source for DuetE-2 HDMI output (Loop Out)
VIDEO.HDMI_OUT_PRIORITY	1	1, 2, 3, 4, 5, 6	DuetE-2	Sets the input priority of a DuetE-2 HDMI Out (Loop Out) when VIDEO.HDMI_OUT is set to AUTO. 1= HDMI1 HDMI2 USB-C, 2= HDMI1 USB-C HDMI2, 3= HDMI2 HDMI1 USB-C, 4= HDMI2 USB-C HDMI1, 5= USB-C HDMI1 HDMI2, 6= USB-C HDMI2 HDMI1
VIDEO.INFO_TEXT	TRUE	TRUE, FALSE	DECODERS	Enables (TRUE) or Disables (FALSE) the showing of IP addresses and connection
				information on the splash screen

VIDEO.OSD_TEXT	FALSE	TRUE, FALSE	DECODERS	Can be used to put user text onto the screen as an overlay.
VIDEO.OUTPUT	NORMAL	NORMAL, OFF, STANDBY, LOGO	DECODERS	OFF is HDMI output disabled. STANDBY is HDMI output blank screen. LOGO is HDMI output of splash screen. NORMAL is normal operation
VIDEO.POWER_SAVE	FALSE	TRUE, FALSE	DECODERS	After VIDEO.SOURCE_TIMEOUT when there is no IP Video Stream detected, TRUE sets HDMI output to off, FALSE sets output to display the splash screen
VIDEO.SEND_CEC_GENERIC	NONE	CEC Command	DECODERS	Send CEC String to Display
VIDEO.SOURCE_TIMEOUT	TRUE	TRUE, FALSE	DECODERS	When set to TRUE, decoder output will switch to off or splash screen depending upon setting of VIDEO.POWER_SAVE when there is no IP Video Stream detected

**Example:** Turn video output off (Decoder)

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VIDEO.OUTPUT=OFF&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Example:** Turn video output on (Decoder)

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VIDEO.OUTPUT=NORMAL&CMD=END

**Example Response:**

&VIDEO.OUTPUT=queue\_next\_switch&VIDEO.OUTPUT=set\_video\_output\_timer&API.STATUS=SUCCESS\n

**Video Format Table:**

Name	Value	Note
Source	0	Output follows format of Source encoded stream
2160P30	8000005F	4k 30 fps
2160P25	8000005E	4k 25 fps
1080P60	80000010	1080P 60 fps
1080P50	8000001F	1080P 50 fps
1080P30	80000022	1080P 30 fps
1080P25	80000021	1080P 25 fps
720P60	80000004	720P 60 fps
1366x768	81000061	1366x768
1440x900	81000040	1440x900
1920x1200	81000051	1920x1200
1400x1050	8100003C	
1080P60_RGB_FULL	81004051	Output should have RGB_FULL levels and not RGB_LIMITED

**Video Wall:**

Key	Default Value	Values	Applies To:	Notes
VW.ACTIVE	None	TRUE, FALSE	DECODERS	Determines if unit is currently scaling output (TRUE) or displaying the full image without scaling (FALSE)
VW.COLUMN	1	Integers up to 16	DECODERS	Column position of this unit
VW.ENABLED	None	TRUE, FALSE	DECODERS	Determines if unit will listen to VW commands. Requires reboot upon value change
VW.ENABLED_NOT_ENABLED	None	TRUE, FALSE	DECODERS	
VW.MAX_COLUMNS	1	Integers up to 16	DECODERS	Total number of columns in video wall
VW.MAX_ROWS	1	Integers up to 16	DECODERS	Total number of rows in video wall
VW.NAME	None	Any string up to 64 characters	DECODERS	Name of the Video Wall preset
VW.OVERALL_HEIGHT	1	Integer 1 to 99999	DECODERS	Overall height of display in 0.1mm increments. Use 1 for zero bezel
VW.OVERALL_WIDTH	1	Integer 1 to 99999	DECODERS	Overall width of display in 0.1mm increments. Use 1 for zero bezel
VW.ROTATE	0	TBD	DECODERS	Type of rotation to use in video wall mode

VW.ROW	1	Integers up to 16	DECODERS	Row position of this unit
VW.STRETCH	2	TBD	DECODERS	Type of stretching to use in video wall mode
VW.VISIBLE_HEIGHT	1	Integer 1 to 99999	DECODERS	Visible height of display in 0.1mm increments. Use 1 for zero bezel
VW.VISIBLE_WIDTH	1	Integer 1 to 99999	DECODERS	Visible width of display in 0.1mm increments. Use 1 for zero bezel

Note: Video wall keys are executed as they are received. This means the decoder does not wait for the end of the string to execute the received command. As a result, the order of these key is especially important. Video wall parameters need to be established before a decoder position may be established.

In addition, most control system can send multiple commands within milliseconds. In some instances, it is recommended to divide command string into different sections and send multiple commands. For video walls, it is recommended that the commands for the decoder position be sent first, then send the command for the source. See example below.

**Example:** Change source on 2x2 video wall Source 1: Wall Plate Encoder (192.168.8.101)

**Set Decoder Position:**

**Decoder 1** - Row 1 Column 1 (Top Left) (192.168.8.111):

**GET:**

```
http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VW.MAX_ROWS=2&VW.MAX_COLUMNS=2&VW.ROW=1&VW.COLUMN=1&VW.ACTIVE=TRUE&CMD=END
```

**Example Response:** &API.STATUS=SUCCESS\n

**Decoder 2** - Row 1 Column 2 (Top Right) (192.168.8.112):

**GET:**

```
http://admin:admin@192.168.8.112/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VW.MAX_ROWS=2&VW.MAX_COLUMNS=2&VW.ROW=1&VW.COLUMN=2&VW.ACTIVE=TRUE&CMD=END
```





**Example Response:** &API.STATUS=SUCCESS\n

**Decoder 3** - Row 2 Column 1 (Bottom Left) (192.168.8.113):

**GET:**

http://admin:admin@192.168.8.113/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VW.MAX\_ROWS=2&VW.MAX\_COLUMNS=2&VW.ROW=2&VW.COLUMN=1&VW.ACTIVE=TRUE&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Decoder 4** - Row 2 Column 2 (Bottom Right) (192.168.8.114):

**GET:**

http://admin:admin@192.168.8.114/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&VW.MAX\_ROWS=2&VW.MAX\_COLUMNS=2&VW.ROW=2&VW.COLUMN=2&VW.ACTIVE=TRUE&CMD=END

**Example Response:** &API.STATUS=SUCCESS\n

**Source 1:** Wall Plate Encoder (192.168.8.101)

**Set Source 1:**

**Decoder 1:**

**GET:**

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 2:**

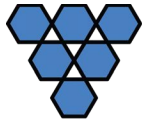
**GET:**

http://admin:admin@192.168.8.112/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 3:**

**GET:**



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http://admin:admin@192.168.8.113/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

## Decoder 4:

### GET:

http://admin:admin@192.168.8.114/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.101&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Source 2:** Wall Plate Encoder (192.168.8.102)

## Set Source 2:

### Decoder 1:

#### GET:

http://admin:admin@192.168.8.111/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

### Decoder 2:

#### GET:

http://admin:admin@192.168.8.112/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

### Decoder 3:

#### GET:

http://admin:admin@192.168.8.113/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END



**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n

**Decoder 4:**

**GET:**

http://admin:admin@192.168.8.114/cgi-bin/wapi.cgi?CMD=START&UNIT.ID=ALL&STREAM.HOST=192.168.8.102&VW.ACTIVE=TRUE&STREAM.CONNECT=TRUE&CMD=END

**Example Response:** &STREAM.CONNECT=queue\_next\_switch&API.STATUS=SUCCESS\n