API Commands for IP Controller

(Need to add the IP control box in the AV over IP system)

Introduction

IP controller has two Ethernet ports: LAN (AV) port and LAN(C) port. Once powered on, it will listen at TCP port 23 to try to establish a Telnet/TCP session with the remote 3rd controller on these two ports, through which you can control and manage IP matrix with the API command.

Important Notes:

1. Alias based programming mechanism

   Since the API version 1.7, this mechanism is supported. This way you needn't modify the 3rd controller's program when some device is damaged and has to be replaced with new one.

   To enable this, the 3rd controller should issue "config set session alias on" command once the telnet session is established and then in this session not only the command but also the feedback information are alias based (However, this rule is not suitable to the IP controller's web UI). For backward compatibility, those sessions without this mechanism enabled, the feedback information will still be based on host name.

2. Commands specified to specific models should refer to the product version.

   Sometimes you may find that this API doc claims some commands specific to some model while in fact the model doesn't support these commands. This happens most likely with the different version of that model. You can refer to the version's release notes or our post sales.

3. Gateway setting strategy change

   Since the version API V1.17/SC009web_v8.2.3/gbcmd_v8.2.6, the gateway setting strategy has been changed to single gateway pattern, i.e. for the gateways of the LAN (AV) and LAN (C) ports, one must be set as 0.0.0.0, and the other be set as an available gateway address. The available gateway address will be the default gateway.

4. Device name replacement by keyword

   For some commands, *hostname* can be one of the keywords like *ALL_DEV*, *ALL_TX*, *ALL_RX*. When *hostname* is a keyword, the command cannot include other keywords or device names.

   Here is a list of commands that support using keywords:

config set device restorefactory
config set device reboot
config set device cec standby
config set device cec onetouchplay
config set device sinkpower
config set device audio volume
config set device cec notify
config get device info
config get device status
serial
infrared
cec

1.1 Preparation

This section takes a third party control device windows 7 as an example. You may also use other control devices.

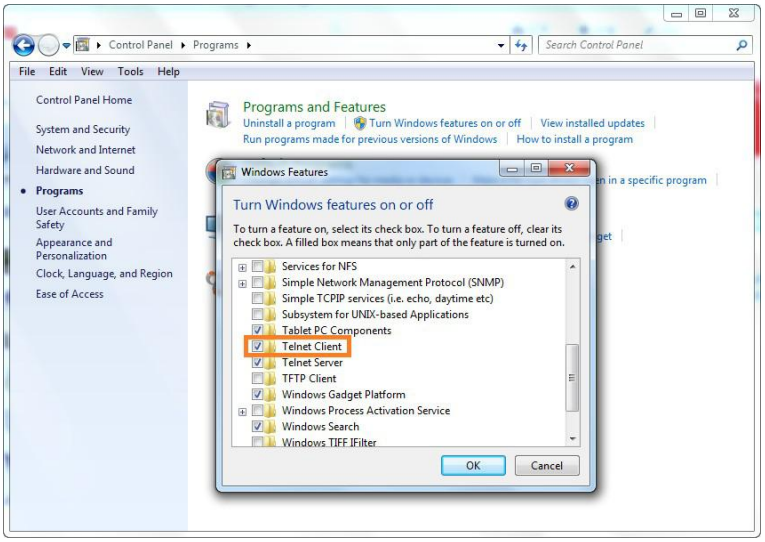
Setting IP Address in Your Computer

Before logging in to IP controller via command-line interface, make sure that your computer and IP controller are on the same subnet. If network settings in LAN(C) port of IP controllerare192.168.11.243/16, set your IP address in the 192.168.x.x range with a subnet mask of 255.255.0.0

Enabling Telnet Client

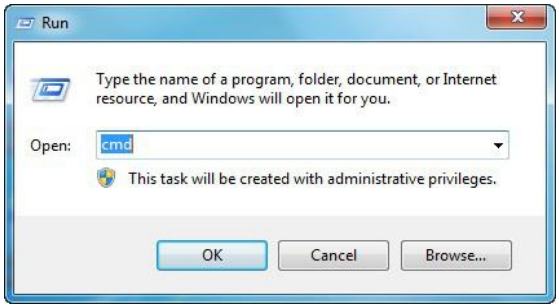
Before logging in to IP controller via command-line interface, make sure that **Telnet Client** is enabled. By default, **Telnet Client** is disabled in Windows 7. To turn on **Telnet Client**, do as follows.

1. Choose **Start**>**ControlPanel**>**Programs**.
2. In **Programs and Features** area box, click **Turn Windows features on or off**.
3. In **Windows Features** dialog box, select **Telnet Client** check box.

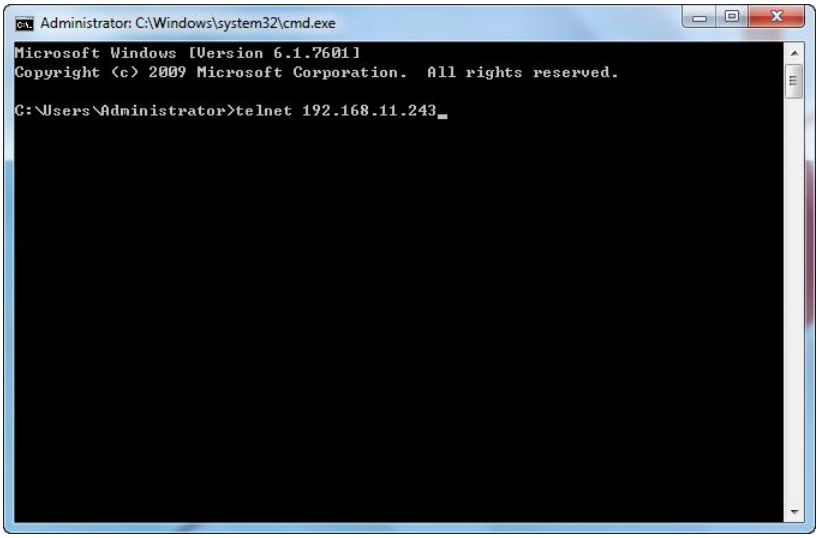


1.2 Logging In to IP Controller via Command-line Interface

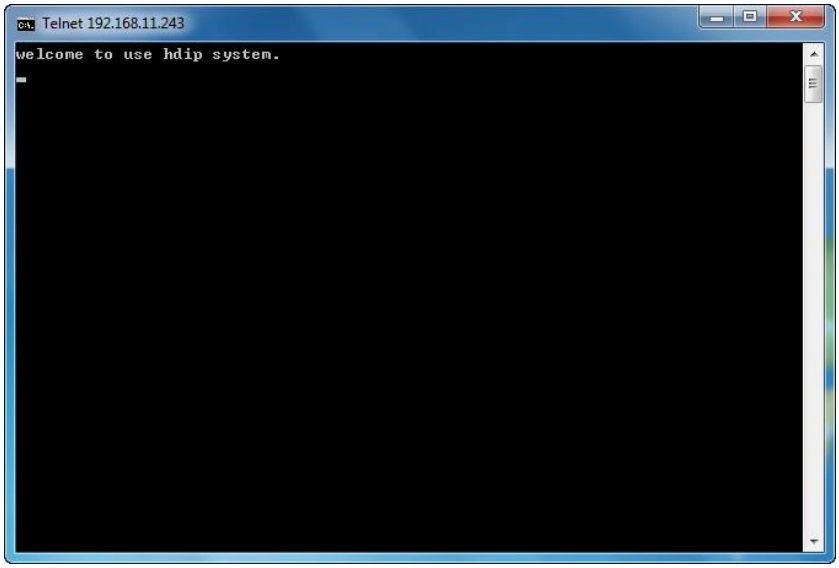
1. Choose **Start**>**Run**.
2. In the **Run** dialog box, enter **cmd** then click **OK**.



3. Enter **telnet 192.168.11.243**(IP addressof SC009 LAN(C) port), and then press **Enter**.



4. Enter API commands in the following screen to control and manage IP matrix.



1.3 Introduction to Terminology

The terminology used in API command description is listed as follows.

Terminology	Description
Device	TX, RX, a presentation switcher, a recording server controlled and managed by IP controller.

Online	Device is working properly and can be controlled by IP controller.
Offline	Device cannot be controlled byIP controllerfor a reason such as power failure.
Device Name	A fixed name given byfactory defaults with a format "Device type-MAC address", for example IPE2000-341B22FFFFB3.
Alias	A name given manually for easy management.It can be changed using any characters or strings except some special ones. For more information, see 2.1.8config set device alias.

1.4 API Commands Overview

API commands of IP controller are mainly classified into the following types.

- config: managesand configuresIP controller and devices
- matrix: controls the switching of TX and RXor obtainsmatrix information
- source: obtainsor selects source input in TX
- vw: configures and manages video wall
- mv: configures and manages multi-view
- serial: sends commands to peripheral devices via serial ports of the devices
- notify: positively informs a third party control device such as a PC about serial response and online status.

config Commands

config commands are mainly classified into two types**config set**and **config get**commands.

1. config set Commands

Commands	Description
config set ip4addr	Configures network settings in LAN(AV) port for communicating with devices
config set ip4addr2	Configures network settings in LAN(C) port for communicating with a third party control device such as a PC
config set webloginpasswd	Sets Web configuration page login password
config set telnetpasswd	Sets Telnet login password
config set delete telnetpasswd	Deletes Telnet login password
config set restorefactory	Resets IP controller to factory defaults
config set reboot	Reboots IP controller
config set device alias	Renames a device
config set device remove	Removes a device record from IP controller

config set device ip	Configures device network settings
config set device reboot	Reboots a device
config set device restorefactory	Resets a device to factory defaults
config set device info	Changes device working parameters
config set device cec standby	Makes display devices connected to RX enter standby status
config set device cec onetouchplay	Wakes up display devices connected to RX
config set device sinkpower *{on|off} hostname1 hostname2 ...*	Wakes up a display device or makes it enter its standby mode.
config set device audio input type *TYPE hostname1 hostname2 ...*	Configures device hostname1, hostname2 audio input type.
config set device status notify *{on|off} hostname*	Wakes up the device status notify system or make it enter its standby mode.
config set device cec notify *{on|off} hostname*	Wakes up the device cec notify system or make it enter its standby mode.
config set device audio volume *{mute|unmute|up|down} {hdmi[:n]|analog[:n]|all} hostname1 hostname2 ...*	Control the device audio volume.
config set session alias *{on|off}*	Open or close the alias mode on current session
config set telnet alias *{on|off}*	Open or close the alias mode on Telnet session
config set rs-232 alias *{on|off}*	Open or close the alias mode on rs-232 session
config set system sshservice *{on|off}*	Open or close the SSH Service of the system

Note:

"config set device info" does not apply to IP5000 series products.

2. config get Commands

Commands	Description
config get version	Obtains IP controller version information
config get devicelist	Obtains an online device list
config get ipsetting	Obtains network settings in LAN(AV) port
config get ipsetting2	Obtains network settings in LAN(C) port
config get name	Obtains a device name or its alias
config get device info	Obtains device working parameters
Config get device status	Obtains device status information
config get devicejsonstring	Obtains all device information
config get scenejsonstring	Obtains all scene information
config get telnet alias	Obtainsthe alias mode on Telnet session
config get rs-232 alias	Obtainsthe alias mode on rs-232 session
config get system sshservice	Obtainsthe SSH Service of the system
config get system info	Obtains the system status

matrix Commands

Command	Description

Command	Description
matrix set	Controls switching of TX and RX
matrix get	Obtains TX played by RX in matrix
matrix video set TX1 RX1 RX2,TX2 RX3 RX4,...	Change the RX and TX video matrix link relationship
matrix videoget RX1 RX2 …	Get all or parts of the RX information which link relationship with TX
matrix audio set TX1 RX1 RX2,TX2 RX3 RX4,...	Change the RX and TX matrix link relationship in the audio matrix
matrix audioget RX1 RX2 …	Get all or parts of the RX information which link relationship with TX in audio matrix
matrix usb set TX1 RX1 RX2,TX2 RX3 RX4,..	Change the USB matrix link relationship
matrix usbget RX1 RX2 …	Get all or parts of the RX information which link relationship with TX in USB matrix
matrix infrared set TX1 RX1 RX2,TX2 RX3 RX4,...	Change the RX and TX infrared matrix link relationship
matrix infrared get RX1 RX2 …	Get all or parts of the RX link information with TX in infrared matrix
matrix infrared2 set *txdev mode [rxdev]*	Change the device's infrared matrix link relationship (only for IPX6000)
matrix infrared2 get *dev*…	Get all or parts of the devices' link information in infrared matrix (only for IPX6000)
matrix serial set TX1 RX1 RX2,TX2 RX3 RX4,...	Change the RX and TX serial matrix link relationship
matrix serial get RX1 RX2 ...	Get all or parts of the RX link information with TX in serial matrix
matrix serial2 set *txdev mode [rxdev]*	Change the device's serial matrix link relationship (only for IPX6000)
matrix serial2 get *dev…*	Get all or parts of the devices' link information in serial matrix (only for IPX6000)

vw Commands

Command	Description
vw add	Creates video wall
vw rm	Removes video wall
vw rmvwname rx	Removes one or multiple RX from video wall
vw add position	Adds RX to video wall
vw add layout	Creates video wall and automatically applies the settings
vw change rx tx	Removesa certain RX from video wall
vw change vw-name tx	Changes to another source for video wall
vw get	Obtainsa list of all video walls
vw stretch vw-name type	Sets the stretch mode of the video wall

sceneCommands

Command	Description
scene get	Obtainsall scene names
scene active *scenename*	Enables a new scene in video wall.This action takes effect immediately.
scene set *scenename posX posY tx1…*	Assigns a source to RX in a scene of video wall. This action makes RX display this sourceuntil **scene active *scenename*** is executed.
scene change *scenename txname*	Assignsa source to all RX in a scene of video wall. This action makes all RX display this source until **scene active *scenename*** is executed.
scene set *sceneName* bezelgap *vw-nameow oh vw vh*	Setsthe bezel compensation parameters for a specific video wall in a scene.
scene set *sceneName*stretch*vw-nametype*	Sets the stretch mode for a specific video wall in a scene.
scene connect *scenename tx1 tx2 … txnm*	Assigns sources to the corresponding RX of a scene in sequence. This action is operated only onceand will not be saved in IP controller (SC009).

serial Commands

Command	Description
serial	Sends commands to peripheral devices via serial ports ofthe devices

cec Commands

Command	Description
cec *CECDATA hostname*	Transmits CEC commands to the device

Command Sets

1.5 config Commands

config set ip4addr

Command	config set ip4addr *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Response	ip setting will change to: ipaddr *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Description	Configures network settings in LAN(AV) port for communicating with devices **Note:** ● This command is used to set IP address, subnet mask and gateway in LAN(AV) port. You can set two or three of them at the same time or only one each

	time. ● LAN(AV) port only supports Static IP mode.After network settings are configured, it automatically reboots for the settings to take effect.

Example:

If you want to set LAN(AV) port's IP address as 169.254.1.254, subnet mask 255.255.0.0 and gateway 169.254.1.1:

Command:

config set ip4addr 169.254.1.254 netmask 255.255.0.0 gateway 169.254.1.1

Response:

ip setting will change to: ipaddr 169.254.1.254 netmask 255.255.0.0 gateway 169.254.1.1

config set ip4addr2

Command	config set ip4addr2 *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Response	ip setting2 will change to: ipaddr *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Description	Configures network settings in LAN(C) port for communicating with a third party control device such as a PC. **Note:** ● This command is used to set IP address, subnet mask and gateway in LAN(C) port. You can set two or three of them at the same time or only one each time. ● LAN(C) port only supports Static IP mode. After network settings are configured, it automatically reboots for the settings to take effect.

Example:

If you want to set LAN(C) port's IP address as 192.168.11.243, subnet mask 255.255.0.0 and gateway 192.168.11.1:

Command:

config set ip4addr2 192.168.11.243 netmask 255.255.0.0 gateway 192.168.11.1

Response:

ip setting2 will change to: ipaddr 192.168.11.243 netmask 255.255.0.0 gateway 192.168.11.1

config set weblo ginpasswd

Command	config set webloginpasswd *xxxxxx*
Response	password for web modified
Description	Sets Web configuration page login password. Please use the new one for next login.

Example:

If you want to change login password to 123456:

Command:

config set webloginpasswd 123456

Response:

password for web modified

config set telnetpasswd

Command	config set telnetpasswd *xxxxxx*
Response	password for telnet modified
Description	Sets Telnet configuration page login password. Please use the new one for next login.

Example:

If you want to change login password to 123456:

Command:

config set telnetpasswd 123456

Response:

password for telnet modified

config set delete telnetpasswd

Command	config set delete telnetpasswd
Response	password for telnetdeleted
Description	DeleteTelnet configuration page login password. Please use the new one for next login.

Example:

If you want to delete login password:

Command:

config set delete telnetpasswd

Response:

password for telnet deleted

config set restorefactory

Command	config set restorefactory
Response	system will restore to factory settings now
Description	Resets IP controller to factory defaults.When it is restored to factory defaults, it will automatically reboot for the settings to take effect.

Example:

If you want to resetIP controller to factory defaults:

Command:

config set restorefactory

Response:

system will restore to factory settings now

config set reboot

Command	config set reboot
Response	system will reboot now
Description	Reboots IP controller

Example:

If you want to reboot IP controller:

Command:

config set reboot

Response:

system will reboot now

config set device alias

Command	config set device alias *hostnamexxxx*
Response	hostname's alias is *xxxx*
Description	Renames device

Note:

- **hostname** is device name.
- Alias can be used in other commands to replace its device name.
- Alias should be different from others.
- Alias cannot contain the characters (exclude the double quotation marks) in the following table. "NULL" is not case sensitive.

" " (space)	","	";"	"_"	"@"	"*"
"&"	"NULL"				

Example:

If you want to set IPD2000-341B22FFFFB3's alias as MYDVD:

Command:

config set device alias IPD2000-341B22FFFFB3 MYDVD

Response:

IPD2000-341B22FFFFB3's alias is MYDVD

config set device remove

Command	config set device remove *hostname1 hostname2*...
Response	The following device's record will be removed: *hostname1* *hostname2* …
Description	Removes a device recordfrom IP controller. **Note:** ● **hostname1**and **hostname2** are device names. ● You can remove one or multiple devices' records at one time.When a device's record is removed, it cannot be detected and controlled by IP controller. If you want to restore the removed online device, reboot it or IP controller.If you want to restore the removed offline device, reboot it.

Example:

If you want to remove the records of EX363-AABBCCEEDDFF and IPD1000-1234567890AB:

Command:

config set device remove EX363-AABBCCEEDDFF IPD1000-1234567890AB

Response:

the following device's record will be removed:

EX363-AABBCCEEDDFF

IPD1000-1234567890AB

config set device ip

Command	config set device ip *hostname1 {autoip|dhcp|static ip4addr netmask gateway}, hostname2 {autoip|dhcp|static ip4addr netmask gateway}...*
Response	Devices' ipsetting will change to: *hostname1 {autoip|dhcp|static ip4addr netmask gateway}* *hostname2 {autoip|dhcp|static ip4addr netmask gateway}* *…*
Description	Configures device network settings. **Note:** ● **hostname1**and **hostname2** are device names. ● Devices support AutoIP, DHCP and Static IP for network configuration. For Static IP, you need to set IP address, subnet mask and gateway at the same time. ● You can use configure network settings for multiple devices at one time. ● After network settings are configured, you must reboot the devices for the settings to take effect. This command will not restart devices.

Example:

If you want to set IPD500-341B22800BCD to AutoIP and IPD500-341B22800BCAto Static IP (IP address 169.254.5.253, subnet mask 255.255.0.0, gateway 169.254.1.253):

Command:

config set device ip IPD500-341B22800BCD autoip, IPD500-341B22800BCA static 169.254.5.253 255.255.0.0 169.254.1.253

Response:

Devices's ipsetting will change to:

IPD500-341B22800BCD autoip

IPD500-341B22800BCA static 169.254.5.253 255.255.0.0 169.254.1.253

config set device reboot

Command	config set device reboot *hostname1 hostname2...*
Response	the following device will reboot now: *hostname1* *hostname2* *...*
Description	Rebootsone or multiple devices.

	Note: **hostname1** and **hostname2** are device names.

Example:

If you want to reboot EX383-341B22FFFFB3 and EX383-341B22FFFFB4:

Command:

config set device reboot EX383-341B22FFFFB3 EX383-341B22FFFFB4

Response:

the following device will reboot now:

EX383-341B22FFFFB3

EX383-341B22FFFFB4

config set device restorefactory

Command	config set device restorefactory *hostname1 hostname2*...
Response	the following device will restore to factory setting now: *hostname1* *hostname2* ...
Description	Resets one or multiple devices to factory defaults. After they are restored to factory defaults, devices will automatically reboot for the settings to take effect. **Note:** **hostname1** and **hostname2** are device names.

Example:

If you want to reset EX383-341B22FFFFB3 and EX383-341B22FFFFB4 to factory defaults:

Command:

config set device restorefactory EX383-341B22FFFFB3 EX383-341B22FFFFB4

Response:

the following device will restore to factory setting now:

EX383-341B22FFFFB3

EX383-341B22FFFFB4

config set device info

Command	config set device info *key1=value1 [key2=value2…] hostname1 hostname2...*
Response	config set device info *key1=value1 key2=value2 key3=value3 key4=value4 hostname1 hostname2...*
Description	Changes a device's one or multiple working parameters in **key=value** format. You can change parameters for multiple devices at one time. **Note:** ● **hostname1** and **hostname2** are device names. ● **Key** is parameter name and **value** is its value. For more information, see 3.1Device Info section.

Example:

If you want to set EX143-AABBCCDDEEFF's **mic_volume** as 20, **audio.mic1.gain** 12 and **audio.lineout1.volume**20:

Command:

config set device info mic_volume=20 audio.mic1.gain=12 audio.lineout1.volume=20 EX143-AABBCCDDEEFF

Response:

config set device info mic_volume=20 audio.mic1.gain=12 audio.lineout1.volume=20 EX143-AABBCCDDEEFF

config set device cec standby

Command	config set device cec standby *hostname1 hostname2...*
Response	config set device cec standby *hostname1 hostname2...*
Description	Makes one or multiple display devices connected to RX enter standby status. **Note:** ● **hostname1** and **hostname2** are device names. ● This command is used to control RX to send a CEC command to make one or multiple display devices enter standby mode. ● You can just use one command to make multiple display devices enter standby mode. ● Display devices must support CEC.

Example:

If you want a display device connected to RX EX373-AABBCCDDEEFF enter standby mode:

Command:

config set device cec standby EX373-AABBCCDDEEFF

Response:

config set device cec standby EX373-AABBCCDDEEFF

config set device cec onetouchplay

Command	config set device cec onetouchplay*hostname1 hostname2...*
Response	config set device cec onetouchplay *hostname1 hostname2...*
Description	Wakes up one or multiple display devices connected to RX. **Note:** ● **hostname1** and **hostname2** are device names. ● This command is used to control RX to send a CEC command to wake up one or multiple display devices. ● You can just use one command to wake up multiple display devices. ● Display devices must support CEC.

Example:

If you want to wake up a display device connected to RX EX373-AABBCCDDEEFF:

Command:

config set device cec onetouchplay EX373-AABBCCDDEEFF

Response:

config set device cec onetouchplay EX373-AABBCCDDEEFF

config set device sinkpower

Command	config set device sinkpower *{on|off} hostname1 hostname2 ...*
Response	config set device sinkpower *{on|off} hostname1 hostname2 ...*
Description	Wakes up a display device or makes it enter its standby mode.

Example:

If you want to wake up a display device connected to EX373-AABBCCDDEEFF from its standby mode:

Command:

config set device sinkpower on EX373-AABBCCDDEEFF

Response:

config set device sinkpower on EX373-AABBCCDDEEFF

config set device audio

Command	config set device audio input type *TYPE hostname1 hostname2 ...*
Response	config set device audio input type *TYPE hostname1 hostname2 ...*
Description	This command is only used for IPE5000, configure device hostname1, hostname2's audio input type such as auto, hdmi, analog.

Example:

Command:

config set device audio input type hdmi IPE5000-AABBCCDDEEFF

Response:

config set device audio input type hdmi IPE5000-AABBCCDDEEFF

config set device status notify

Command	config set device status notify*{on|off} hostname1 hostname2 ...*
Response	config set device status notify *{on|off} hostname1 hostname2 ...*
Description	Wakes up device status notify or makes it enter its standby mode. hostname is the device alias; Hostname also can be KEY words: ALL_DEV, ALL_TX, ALL_RX, ALL_MRX, ALL_WP, ALL_GW, when hostname is one of the KEY word, this command will not include other KEY word and device name.

Example 1:

Command:

config set device status notify on IPE2000-AABBCCDDEEFF

Response:

config set device status notify on IPE2000-AABBCCDDEEFF

Example 2:

Command:

config set device status notify on ALL_TX

Response:

config set device status notify on ALL_TX

config set device cec notify

Command	config set device cec notify*{on|off} hostname1 hostname2 ...*
Response	config set device cec notify *{on|off} hostname1 hostname2 ...*
Description	Wakes up device cec notify system or makes it enter its standby mode. hostname is the device alias; Hostname also can be KEY words: ALL_DEV, ALL_TX, ALL_RX, when hostname is one of the KEY word, this command will not include other KEY word and device name.

Example 1:

Command:

config set device cec notify on IPE2000-AABBCCDDEEFF

Response:

config set device cec notify on IPE2000-AABBCCDDEEFF

Example 2:

Command:

config set device cec notify on ALL_DEV

Response:

config set device cec notify on ALL_DEV

config set device audio volume

Command	config set device audio volume *{mute|unmute|up|down|digit} {hdmi[:n]|analog[:n]|all}hostname1 hostname2 ...*
Response	config set device audio volume *{mute|unmute|up|down} {hdmi[:n]|analog[:n]|all} hostname1 hostname2 ...*
Description	Control device audio volume, the meanings of parameters as follow: {mute|unmute|up|down}: up is volume increased; down is volume decreased; mute means mute mode, unmute means mute mode cancelled; {hdmi[:n]|analog[:n]|all}: hdmi means that all the HDMI audio outputs, hdmi[:n] means that the number of hdmi audio output is n; analog means that all the analog audio outputs, analog[:n]means that the number of analog audio output is n; all is all of the hdmi and analog audio outputs. **Note:** IPX5000 supports "up" and "down" setting for analog audio only.

Example:

If you want to increase all the analog outputs audio volume of IPD5000-1 and IPD5000-2:

Command:

config set device audio volume up analog IPD5000-1 IPD5000-2

Response:

config set device audio volume up analog IPD5000-1 IPD5000-2

config set session alias

Command	config set session alias *{on|off}*
Response	config set session alias *{on|off}*
Description	Open or close the alias mode on the current session, if the value set to be on, then all API command next to it will get alias information feedback, while the feedback got alias. If the value set to be off, then all API command next to it will get true name information feedback.

Example:

If you want to configure the session alias to ON mode:

Command:

config set session alias on

Response:

config set session alias on

config set telnet alias

Command	config set telnet alias *{on|off}*
Response	config set telnet alias *{on|off}*
Description	Configure the Telnet session default alias mode, it will not affect the telnet session that has been linked, only affect the telnet session which is linked later. When the value is on, the API response will describe the device with alias. When the value is off, the API response will describe the device with true name. Note: on is by default.

Example:

If you want to configure the telnet alias to off mode:

Command:

config set telnet alias off

Response:

config set telnet alias off

config set rs-232 alias

Command	config set rs-232 alias *{on|off}*
Response	config set rs-232 alias *{on|off}*
Description	Configure uart session alias mode. When it is on, the API response will describe the device with alias, when is off, API response will describe the device with true name. Note: on is by default.

Example:

If you want to configure the uart alias to off mode:

Command:

config set rs-232 alias off

Response:

config set rs-232 alias off

config setsystem sshservice

Command	config set systemsshservice *{on|off}*
Response	config set system sshservice*{on|off}*
Description	Open or close the system SSH service, off is by default.

Example:

If you want to open the system SSH service mode:

Command:

config set system sshservice on

Response:

config set system sshservice on

config get version

Command	config get version
Response	API version: *v#.#* System version: *v#.#.#(v#.#.#)*
Description	Obtains IP controllerversion information. **Note:** ● This command is used to obtain IP controller version information, which can be used fortroubleshooting. ● IP controller version information contains API version, web console version and service version

Example:

If you want to obtain IP controllerversioninformation:

Command:

config get version

Response:

API version: v1.2

System version: v3.0.2 (v1.5.4)

Note:

v1.2 is API version. v3.0.2 is web console version. v1.5.4 is service version.

config get devicelist

Command	config get devicelist
Response	devicelist is *hostname1 hostname2...*
Description	Obtains online device list. **Note:** ● **hostname1** and **hostname2** are device names. ● This command is used to get all online device names. ● If you want to obtain a list consisting of device types and offline devices, you can use **config get devicejsonstring**.

Example:

If you want toobtain online device list:

Command:

config get devicelist

Response:

devicelist is EX363-341B228000BC EX373-341B22800490

Note:

The current online devices are EX363-341B228000BC and EX373-341B22800490.

config get ipsetting

Command	config get ipsetting
Response	ipsetting is:ip4addr *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Description	Obtains network settings in LAN(AV) port.

Example:

If you want to obtain network settings in LAN(AV) port:

Command:

config get ipsetting

Response:

ipsetting is:ip4addr 169.254.1.100 netmask 255.255.0.0 gateway 169.254.1.1

Note:

LAN(AV) port's IP address is 169.254.1.100, subnet mask is 255.255.0.0 and gateway is 169.254.1.1.

config get ipsetting2

Command	config get ipsetting2
Response	ipsetting2 is:ip4addr *xx.xx.xx.xx* netmask *xx.xx.xx.xx* gateway *xx.xx.xx.xx*
Description	Obtains network settings in LAN(C) port.

Example:

If you want to obtain network settings in LAN(C) port:

Command:

config get ipsetting2

Response:

ipsetting2 is:ip4addr 192.168.11.223 netmask 255.255.0.0 gateway 192.168.11.1

Note:

LAN(C) port's IP address is 192.168.11.223, subnet mask is 255.255.0.0and gateway is 192.168.11.1.

config get name

Command	config get name*{alias|hostname}*
Response	hostname'alias is *xxxx*
Description	Obtains device name or its alias. Note: ● You can use a device name to obtain its alias or vice versa. ● **alias** is device alias. **hostname** is device name. ● If you use a device name to obtain its alias which is not set, response is "NULL". ● If **config get name** is used without parameters, response is all device names and their aliases.

Example 1:

If you want to obtainIPE200-341B22430115's alias:

Command:

config get name IPE200-341B22430115

Response:

IPE200-341B22430115's alias is testIPE

Example 2:

If you want to obtainIPE200-341B22430225's alias which is not set:

Command:

config get name IPE200-341B22430225

Response:

IPE200-341B22430225's alias is NULL

Example 3:

If you want to obtain all device names and their aliases:

Command:

config get name

Response:

IPE200-341B22430115's alias is testIPE

IPE200-341B22430225's alias is NULL

config get device info

Command	configget device info *hostname1 hostname2...*

Response	devices json info:
	{
	"devices":
	[
	{
	"aliasname" : "RX-1"
	"key11:"value11"
	"key12:"value12"
	...
	},
	{
	"key21:"value21"
	"key22:"value22"
	...
	}
	...
	]
	}

Description	Obtains device working parameters in real time. **Note:** ● **hostname1** and **hostname2** are device names. ● You can get one or multiple devices' working parametersat one time. ● Alias name feature is added from the API v1.7 version ● It may take some time for IP controller to get device information.The developer must consider this factor when programming the caller's code. ● Working parameters use**Key:Value** format. **Key** is a parameter name and **value** is its value. For more information, see 3.1Device Infosection.

Example 1:

If you want to obtain IPE3000-341B22F32001's working parameters:

Command:

config get device info IPE3000-341B22F32001

Response:

devices json info:

{

"devices":

[

{

"aliasname" : "RX-1",

```
                "name":"IPE3000-341B22F32001",
                "version":"v2.5.8",
                "ip_mode":"dhcp",
                "ip4addr":"169.254.107.239",
                "netmask":"255.255.0.0",
                "mac":"34:1b:22:f3:20:01",
                "gateway":" ",
                "hdcp":false,
                "sourcein":"hdmi",
                "enc_rc_mode":"vbr",
                "profile":"hp",
                "cbr_avg_bitrate":10000,
                "vbr_max_bitrate":20000,
                "vbr_min_qp":0,
                "vbr_max_qp":25,
                "fixqp_iqp":25,
                "fixqp_pqp":25,
                "enc_gop":60,
                "enc_fps":60,
                "transport_type":"raw"
            }
        ]
    }
```


Example2:

If you want to obtain IPD1000-341B228007BD's working parameters:

Command:

```
config get device info IPD1000-341B228007BD
```

Response:


```
devices json info:
{
    "devices":
    [
        {
            "name":"IPD1000-341B228007BD",
            "version":"v2.5.6",
            "ip_mode":"autoip",
            "ip4addr":"169.254.5.173",
            "netmask":"255.255.0.0",
            "mac":"34:1b:22:80:07:bd",
            "gateway":" ",
            "hdcp":false,
            "sourcein":"null",
            "audio":
            [
                {
                    "name":"lineout1",
                    "mute":false
```

```
                    }
                ]
            }
        ]
    }
```

Example 3:

If you want to obtain the working parameters of IPE6000-D88039A4C559:

Command:

```
config get device info IPE6000-D88039A4C559
```

Response:


```
{
  "aliasname" : "tx6",
  "analog_audio_direction" : "INPUT",
  "bit_perpixel" : 8,
  "color_space" : "RGB",
   "edid" : "00ffffffffffff0010a6000156524c420816010380341d780a01c1a057479827124c4c21080081
400101010101010101010101010101023a801871382d40582c460040846300001e08e80030f2705a80
b0588a00ba892100001e000000fc0044656661756c740a2020202020000000fd0018550e853c000a202
020202020016b020340735801020304051112131 41f2021220607905d5e5f6263646061230d0707830f
00006d030c001000383c20406801020367d85dc401788003e40f0000c0011d00bc52d01e20b82855404
0846300001e023a80d072382d40102c458040846300001e023a801871382d40582c450040846300001
e000000000000000000f2",
  "gateway" : "10.0.254.253",
  "hdcp14_enable" : true,
  "hdcp22_enable" : true,
  "ip4addr" : "10.0.254.5",
  "ip_mode" : "dhcp",
  "name" : "IPE6000-D88039A4C559",
  "netmask" : "255.255.0.0",
  "serial_param" : "57600-8n1",
  "stream0_enable" : false,
  "stream0fps_by2_enable" : false,
  "stream1_enable" : true,
  "stream1_scale" : "1280x1024",
  "stream1fps_by2_enable" : false,
  "temperature" : 59,
  "version" : "3.5.0.0",
  "video_input" : false,
  "video_source" : "hdmi",
  "video_timing" : "0x0@0"
}
```


Note: The information of “color_space” and “bit_perpixel” have been added to the command response for IPX6000.

config get device status

Command	configget devicestatus*hostname1 hostname2...*

Response	devices status json info:
	{
	"devices_status":
	[
	{
	"aliasname" : "TX-1",
	"name":"IPE2000-341B22800BCC",
	" hdmi in active":"false",
	" resolution":" 0x0",
	" hdmi in frame rate":"0",
	" encoding enable":"true",
	" video stream ip address":" 0.0.0.0",
	" audio stream ip address":" 0.0.0.0",
	" line out audio enable":" true",
	" stream resolution":" 0x0",
	" stream frame rate":" 0",
	}
	]
	}

Description	Obtains device status in real time. **Note:** ● **hostname1** and **hostname2** are device names. ● Device status information uses json format. ● Devices' status information is depend on device instead of IP controller, IP controller is only used for passing by.

Example:

If you want to obtain IPE2000-341B22800BCC's status:

Command:

config get device status IPE2000-341B22800BCC

Response:

devices status json info:

{

"devices_status":

[

{

"aliasname" : "TX-1",

"name":"IPE2000-341B22800BCC",

" hdmi in active":"false",

" resolution":" 0x0",

" hdmi in frame rate":"0",

" encoding enable":"true",

" video stream ip address":" 0.0.0.0",

" audio stream ip address":" 0.0.0.0",

```
                " line out audio enable":" true",
                " stream resolution":" 0x0",
                " stream frame rate":" 0",
            }
        ]
}
```

config get devicejsonstring

Command	config get devicejsonstring

Response	device json string: [
	{
	"aliasName" : "xxx",
	"deviceType" : "Transmitter/Receiver",
	"group" : [
	{
	"name" : "xxx",
	"sequence" : xxx
	}
	],
	"ip" : "xx.xx.xx.xx",
	"online" : true/false,
	"sequence" : xxx,
	"trueName" : "xxx"
	}
	…
	]

Description	Obtains all device information. **Note:** ● "aliasName" represents device alias name (If no alias name appears, it means that this device is not given an alias name). ● "deviceType" represents device type, transmitter or receiver. ● "group" representsa group.One RX unit can only be put in one group."sequence"in"group" represents the position of this group, which starts with 1. If "sequence" is 0, it means that this group is not arranged in specific order. In this case, you can put this group in a position based on programming. ● "ip" represents device IP address such as 169.254.5.24. ● "online" represents device status, online or offline. "true" representsdevice is online."false" represents device is offline. ● "sequence" in a device represents the position of this device in its group, which starts with 1. If "sequence" is 0, it means that this device is not arranged in specific order. In this case, you can put this device in a position based on programming. ● "trueName" represents device true name.

Example:

If you want to obtain all device information:

Command:

```
config get devicejsonstring
```

Response:

```
device json string: [
    {
        "aliasName" : "rx",
        "deviceType" : "Transmitter",
        "group" : [
            {
                "name" : "ungrouped",
                "sequence" : 0
            }
        ],
        "ip" : "169.254.3.73",
        "online" : true,
        "sequence" : 1,
        "trueName" : "IPE3000-341B22F40201"
    }
...
]
```

config get scenejsonstring

Command	config get scenejsonstring

Response	scene json string:[
	{
	"group" : [
	{
	"name" : "xxx",
	"sequence" : xxx
	}
	],
	"layoutseq" : xxx,
	"m" : xxx,
	"n" : xxx,
	"name" : "xxx-xxx",
	"rxArray" : [
	[
	{
	"aliasName" : "xxx",
	"deviceType" : "Transmitter/Receiver",
	"group" : [
	{
	"name" : "xxx",
	"sequence" : xxx
	}
	],
	"online" : true/false,
	"rxstatus" : xxx,

```
                "sequence" : xxx,
                "trueName" : "xxx",
                "txName" : "xxx"
            },
            {
                "aliasName" : "xxx",
                "deviceType" : "Transmitter/Receiver",
                "group" : [
                    {
                        "name" : "xxx",
                        "sequence" : xxx
                    }
                ],
                "online" : true/false,
                "rxstatus" : xxx,
                "sequence" : xxx,
                "trueName" : "xxx",
                "txName" : "xxx"
            }
        ],
        [
            {
                "aliasName" : "xxx",
                "deviceType" : "Transmitter/Receiver",
                "group" : [
                    {
                        "name" : "xxx",
                        "sequence" : xxx
                    }
                ],
                "online" : true/false,
                "rxstatus" : xxx,
                "sequence" : xxx,
                "trueName" : "xxx",
                "txName" : "xxx"
            },
            {
                "aliasName" : "xxx",
                "deviceType" : "Transmitter/Receiver",
                "group" : [
                    {
                        "name" : "xxx",
                        "sequence" : xxx
                    }
                ],
                "online" : true/false,
                "rxstatus" : xxx,
                "sequence" : xxx,
```

```
                        "trueName" : "xxx",
                        "txName" : "xxx"
                    }
                ]
            ],
            "sceneAutoApply" : true/false,
            "sequence" : xxx,
            "txListArray" : [
                [
                    {
                        "devices" : []
                    },
                    {
                        "devices" : []
                    }
                ],
                [
                    {
                        "devices" : []
                    },
                    {
                        "devices" : []
                    }
                ]
            ],
            "vwConfigList" : [
                {
                    "col_count" : xxx,
                    "mode" : "xxx",
                    "name" : "xxx",
                    "oh" : xxx,
                    "ow" : xxx,
                    "pos_col" : xxx,
                    "pos_row" : xxx,
                    "row_count" : xxx,
                    "vh" : xxx,
                    "vw" : xxx
                },
                {
                    "col_count" : xxx,
                    "mode" : "xxx",
                    "name" : "xxx_xxx",
                    "oh" : xxx,
                    "ow" : xxx,
                    "pos_col" : xxx,
                    "pos_row" : xxx,
                    "row_count" : xxx,
                    "vh" : xxx,
```

	"vw" : xxx }] }]
Description	Obtains all scene information. **Note:** ● "group" representsagroup. One scene can only be put in one group. "sequence" in" group" represents the position of this group, which starts with 1. If "sequence" is 0, it means that this group is not arranged in specific order. In this case, you can put this group in a position based on programming. ● "layoutseq" represents the position of this scene in video wall. ● "n" and "m" represent the number of rows and columns respectively in a scene. ● "name" representsscene name, such as s ● "rxArray"describes RX in a form of two-dimensional arrayin a scene. ● "sequence" in a scene represents the position of video wall which contains this scene , which starts with 1. If "sequence" is 0, it means that this video wall is not arranged in specific order. In this case, you can put it in a position based on programming. ● "txListArray"describesTX in a form of two-dimensional arrayin a scene. ● "vwConfigList" represents the configuration of combination screen in a scene. "name" represents combination screen name, which uses "scene name_ combination screen name" in IP controller (SC009)."pos_row" representsthe start place of the first row."pos_col" representsthe start place of the first column."row_count" represents the number of rows in combination screen."col_count"represents the number of columns in combination screen.

config get telnet alias

Command	config get telnet alias
Response	telnet alias is*{on|off}*
Description	Get Telnet session alias mode.

Example:

If you want to get the telnet alias mode:

Command:

config get telnet alias

Response:

telnet alias is off

config get rs-232 alias

Command	config get rs-232 alias
Response	rs-232 alias is*{on|off}*
Description	Get the rs-232 alias mode.

Example:

If you want to get the uart alias mode:

Command:

config get rs-232 alias

Response:

rs-232 alias is off

config getsystem sshservice

Command	config get system sshservice
Response	system sshservice is *{on|off}*
Description	Get thesystem SSH service mode.

Example:

If you want to get the system SSH service mode:

Command:

config get system sshservice

Response:

system sshservice is on

configure get system info

Command	config get system info

Response	system info:
	{
	"meminfo" : {
	"total" : 244292,
	"used" : 232848,
	"free" : 11444,
	"shared" : 0,
	"buffers" : 68616,
	"cached" : 83440
	},
	"cpuinfo" : {
	"user" : 3.4,
	"sys" : 9.3,
	"idle" : 87.0,
	"wait" : 0.1,
	"hi" : 0.0,
	"si" : 0.1
	}
	}

Description	Get the system status information, including CPU and memory usage.

Example:

If you want to get the system status information:

Command:

config get system info

Response:

system info:


```
{
    "meminfo" : {
        "total" : 244292,
        "used" : 232848,
        "free" : 11444,
        "shared" : 0,
        "buffers" : 68616,
        "cached" : 83440
    },
    "cpuinfo" : {
        "user" : 3.4,
        "sys" : 9.3,
        "idle" : 87.0,
        "wait" : 0.1,
        "hi" : 0.0,
        "si" : 0.1
    }
}
```

matrix Commands

matrix set

Command	matrix set *TX1 RX1 RX2,TX2 RX3 RX4,...*
Response	matrix set *TX1 RX1 RX2,TX2 RX3 RX4,...*
Description	● Controls the switching of RX to TX. ● Parameters are separated by commas such as segments TX1 RX1 RX2,TX2 RX3 RX4. Every segment starts with TX and is followed by some RX which are switched to this TX.If a segment starts with TX whose name is "NULL" the followed RX will not decode video. "NULL" is not case sensitive. ● For RX in video wall, this command is used to switch to another TX but will not clear video wall settings. If a RX in video wall displays a certain position of TX1's video, after this RX is switched to TX2, RX will still display the same position of TX2's video.Other RX in video wall functions in the same way. ● For RX supporting multi-view, this command is used to switch to another TX for full-screen displaying.

Example1:

If you want RXEX373L-341B22800316 and EX373-341B22800309 to be switched to TX IPE1000-341B22FFFFC1, RX EX373-341B22800319 to TX IPE1000-341B22FFFFC2, and RX IPD1000-341B2280031A to TX IPE1000-341B22FFFFC3:

Command:

matrix set IPE1000-341B22FFFFC1 EX373L-341B22800316 EX373-341B22800309, IPE1000-341B22FFFFC2 EX373-341B22800319, IPE1000-341B22FFFFC3IPD1000-341B2280031A

Response:

matrix set IPE1000-341B22FFFFC1 EX373L-341B22800316 EX373-341B22800309, IPE1000-341B22FFFFC2 EX373-341B22800319, IPE1000-341B22FFFFC3 IPD1000-341B2280031A

Example2:

If you want RX EX373L-341B22800316 to stop decoding video:

Command:

matrix set NULL EX373L-341B22800316

Response:

matrix set NULL EX373L-341B22800316

matrix get

Command	matrix get
Response	matrix information: *TX1 RX1* *TX2 RX3* *TX2 RX4* *...*
Description	Obtains TX played by RX in matrix. **Note:**

	• For video wall, the response contains RX and its linked TX but does include video wall information. If you want to obtain video wall information, you can use **vw** command. • If TX is NULL, RX does not decode video. "NULL" is not case sensitive. • Response does not include RX which supports multi-view.

Example:

If you want to obtainTX played by RX in matrix:

Command:

matrix get

Response:

matrix information:

IPE200-341B2243011A IPD500-341B22800BCD

IPE200-341B2243011A IPD500-341B22800BCE

IPE200-341B2243011A IPD500-341B22800BCA

null IPD500-341B22800BC6

Note:

The response indicates that IPD500-341B22800BCD, IPD500-341B22800BCE, and IPD500-341B22800BCA all playIPE200-341B2243011A, and that IPD500-341B22800BC6 does not decode video.

source Commands

source set

Command	source set *tx-name source-name*
Response	set *tx-name*'s source to*source-name*
Description	Selects TX's input port.

Note:

- This command is used to select aninput port for TX if it has multiple input ports.
- **tx-name** is TX name. **source-name** is TX inputport name and is not case sensitive. Different TX has different input ports, for example IPE3000 has input ports hdmi and vga.

TXType	Input PortsAvailable
IPE3000	hdmi, vga

- This command cannot be used to choose from different signal types of one input port. For example, IPE2000's DVI input port has five signal types such as HDMI and VGA, which can be chosen using DIP switch but cannot be controlled using this command.

Example:

If you want to set TX IPE3000-341B22430115's input port to HDMI:

Command:

source set IPE3000-341B22430115 hdmi

Response:

set IPE3000-341B22430115's source to hdmi

source get

Command	source get *tx-name*
Response	source info: *tx-name source-name*
Description	Obtains TX's current input port. **Note:** ● **tx-name** is TX name.**source-name** is TX input port name and is not case sensitive. ● If TX only has one input port, this command can also be used to obtain its input port. ● This command will feedback input ports numbered in sequence such as hdmi1 and vga1 whether TX has one or multiple input ports.The caller should decide whether the number is ignored according the hardware feature of TX. ● If TX has one input port with multiple signal types, this command can only feedback its current input port but cannot tell which signal type is chosen.

Example:

If you want to obtain TX IPE3000-341B22430115's current input port:

Command:

source get IPE3000-341B22430115

Response:

source info: IPE3000-341B22430115 hdmi1

vw Commands

vw add

Command	vw add *vw-name n m TX*
Response	videowall item *vw-name* create and assign *TX* to it
Description	Creates an n x m video wall configuration and assigns a TX. **Note:** ● **vw-name** is video wall name and is different from others. ● n isthe number of the row, m isthe number of the column. ● This command is used to create records in IP controller but does not change devices' working status, for example devices still work as they were.

Example:

If you want to create a 2 x 2 video wall configuration **vwtest1** and assign TX IPE200-341B2243011A:

Command:

vw add vwtest1 2 2 IPE200-341B2243011A

Response:

videowall item vwtest1 create and assign IPE200-341B2243011A to it

vw rm

Command	vw rm *vw-name*
Response	videowall item *vw-name* removed
Description	Removes a video wall configuration. **Note:** ● **vw-name** is video wall name. ● This command is used to remove records of video wall configuration in IP controller but does not change devices' working status.If the current video wall is removed using this command, RX in this video wall still plays its previouspicture.

Example:

If you want to remove a video wall configuration **vwtes1**:

Command:

vw rm vwtest1

Response:

videowall item vwtest1 removed

vw rm vwname rx

Command	vw rm *vw-name rx1 rx2…*
Response	videowall config change: remove *rx1 rx2…* from *vw-name*
Description	Removes one or multiple RX from video wall. If RX is removed, it displays an entire picture of TX.

Example:

If you want to remove RX IPD500-341B22800BCE and IPD500-341B22800BCA from video wall**vwtest1**:

Command:

vw rm vwtest1 IPD500-341B22800BCE IPD500-341B22800BCA

Response:

videowall config change: remove IPD500-341B22800BCE IPD500-341B22800BCA from vwtest1

vw change rx tx

Command	vw change *RXTX*
Response	videowall config clear: *rxhostname* and connect to *txhostname*
Description	Removes one RX from video wall and switch this RX to another TX to play its entire picture. **Note:** If TX is "NULL", RX will not decode video. "NULL" is not case sensitive.

Example:

If you want to remove RX IPD500-341B22800BCA from video wall and switch this RX toTX IPE200-341B22430115 to play its entire picture:

Command:

vw change IPD500-341B22800BCA IPE200-341B22430115

Response:

videowall config clear: IPD500-341B22800BCA and connect to IPE200-341B22430115

vw change vw-name tx

Command	vw change *vw-name TX*
Response	videowall *vw-name* tx connect to *txhostname*

Description	Switchesto another sourcefor video wall.When this command is executed, video wall will play this TX. **Note:** ● **vw-name**is video wall name. ● If tx is "NULL", all RX will stop decoding video but video wall configuration does not change. "NULL" is not case sensitive.

Example:

If you want to switch to TX IPE200-341B22430115for video wall **vwtest2**:

Command:

vw change vwtest2 IPE200-341B22430115

Response:

videowall vwtest2 tx connect to IPE200-341B22430115

vw get

Command	vw get
Response	Video wall information: *vw-name1 tx1* Row 1: *Rx1-11 Rx1-12* Row 2: *Rx1-21 Rx1-22* ... *vw-name2 tx2* Row 1: *Rx2-11 Rx2-12* Row 2: *Rx2-21 Rx2-22* ...
Description	Obtains a list of all video walls. **Note:** ● **vw-name1** and **vw-name2** are video wall names. ● **tx1** is TX name of video wall **vw-name1**. **Rx1-11**, **Rx1-12**, **Rx1-21**and **Rx1-22** are RX of video wall **vw-name1**. Numbers like "11" in **Rx1-11** and "12" in **Rx1-12** are RX's positions in video wall.Other TX and RX are similar.

Example:

If you want to obtain a list of all video walls:

Command:

vw get

Response:

Video wall information:

Vm1IPE1000-341B22FFFFC2

Row 1: EX373-341B22FFFFD1 EX373-341B22800309

Row 2: EX373-341B2280031A EX373-341B22800319

Vm2 MS500-341B22FFFFC9

Row 1: EX373-341B2280031A EX373-341B22800319

Row 2: EX373-341B22FFFFD1 EX373-341B22800309

scene Commands

sceneget

Command	scene get
Response	scene list: scenename1 scenename2 scenename3…
Description	Obtains all scene names.

Example:

If you want to obtain all scene names:

Command:

scene get

Response:

scene list:

Office-MeetingRoomOffice-TrainingRoomOffice-TeaRoom

scene active

Command	scene active *scenename*
Response	scene *scenename*active success
Description	Enables a new scene in video wall. This action takes effect immediately.

Example:

If you want to enable a new scene Office-MeetingRoom in video wall:

Command:

scene active Office-MeetingRoom

Response:

scene Office-MeetingRoom active success

scene set

Command	scene set *scenename posX posY tx1…*
Response	scene scenename's source in *[posX,posY] change to tx1*
Description	Assigns a source to RX in a scene of video wall. This action makes RX display this source until **scene active *scenename*** is executed.

Example:

If you want to assign a source (tx1) to RX in scene Office-MeetingRoom of video wall:

Command:

scene set Office-MeetingRoom 1 2 tx1

Response:

scene Office-MeetingRoom's source in [1 2] change to tx1

scene change scenename txname

Command	scene change *scenename txname*
Response	scene scenename's tx change to tx1
Description	Assigns a source to all RX in a scene of video wall. This action makes all RX display this source until **scene active *scenename*** is executed.

Example:

If you want to assign a source (tx1) to all RX in scene1 of video wall:

Command:

scene change scene1 tx1

Response:

scene scene1's tx change to tx1

scene connect scenename

Command	scene connect *scenename tx1 tx2 … txnm*
Response	scene connect *scenename tx1 tx2 … txnm* success
Description	Assigns sources to the corresponding RX of a scene in sequence.This action is operated only once and will not be saved in IP controller (SC009).

Example:

If you want to assign sources (tx1, tx2, tx3, tx4) to the corresponding RX of scene1 in sequence:

Command:

scene connect scene1 tx1 tx2 tx3 tx4

Response:

scene scene1's tx connect to tx1 tx2 tx3 tx4

serial Commands

Command	serial *-b param –r {on|off} –n {on|off}–h {on|off} "command-string"hostname1 hostname2 ...*
Response	serial command received: serial -b param –r {on|off}–n {on|off} –h {on|off} "command-string" hostname1 hostname2 ...
Description	● Command devices(hostname1, hostname2)to execute port commands. ● "And "can not be include in the command string. ● ***- b param*** refers to parameters setting of ports that connected to TX/RX (Baud rate,Data bits,Parity,Stop bits). Take -b 115200-8n1 for example. It's a selectable parameter.115200-8n1 is in default. Baud rate can be [150|200|300|600|1200|1800|2400|4800|9600|19200|38400|57600|115200]; Data Bits can be [5|6|7|8];Parity can be[o|e|n];Stop bits can be [1|2]. ● ***-r {on|off}***:Whether to add carriage returnat the end of command string. It is a selectable parameter. The default setting is on. ● ***-n {on|off}***: Whether to add new line at the end of command string. It is a

	selectable parameter. The default setting is off. ● ***-h {on|off}*****:** When serial commands with -h on, it means that the command-string can be hexadecimal, every 2 characters can be separated by space. For example: AB CD EF 01 23 45 ● ***hostname1, hostname2*** refer to destinations.

FAQ

Q: If errors occur when executing commands, what response IP controllerwill give?

A In fact, responses returned by IP controllerare nearly a confirmation of API commands sent from athird party control device such as a computer. Despite IP controller checked command format basically, the response isn't the actual execution result. It means that IP controller may return normal response even iferrors occur in execution. Therefore, a third party control device shouldnot use the response as the basis to judge whether a command is executed successfully, and should use the right query commands to get the system's running statusto make right judgment.

Q: How can I set IP mode of TX/RX?

A: By default,TX/RX runsin AutoIP mode. You can use API command **config set device ip** to changetheir IP mode to DHCP or Static IP. For more information, see 2.1.10config set device ip.If you want to obtain TX/RX's IP mode,you can use API command **config get device info**.

Q: How can I assign friendly names (alias) to TX or RX?

A: You can use API command **config set device alias**to do this. For example if you want assign alias**mydvd** to TX EX363-002C8D123456, use**config set device alias EX363-002C8D123456 mydvd**

Q: When I send API commands, how do I specify TX and RX?

A: By alias or hostname (device name). Alias and hostname are unique.

Q: Whatstandarddo the API commands use?

A: API commands are printable ASCII characters and are terminated with a<CR>, meaning a carriage return and a line feed must be followed in the end of a command.

Q: It looks like to create a video wall I would use the command "add vw-name". Once a video wall is created, how do I turn it on and off?I should be able to create multiple video wall configurations and then recall a configuration? Is this possible?I would like to use the PC software to create a video wall configuration and then save the configuration as a video wall name.I would then send a telnet command to recall a video wall name. This command could be "set vw-name".

A: Except vw add and vw rm, other commands of vw are effective instantly. (The screen would change based on the commands). To create and store multiple video-wall configuration, or recall the configuration effective, would be depending on your 3-rd party software. Any 3-rd party software could recall a specific configuration, based on this API protocol and repeat corresponding add commands.

Q: How can Icreate a 2 x 2 video wall?

A: Before you use video wall, you'd better assign an alias to each device for easy management.For example, if you have 4 TX and 4 RX, do as follows.

config set device alias IPE1000-AAAAAAAAAAA pc1

config set device alias IPE1000-BBBBBBBBBBBB pc2

config set device alias IPE1000-CCCCCCCCCCCC dvd

config set device alias IPE1000-DDDDDDDDDD stb

config set device alias IPD1000-EEEEEEEEEEEEE TopLeft

config set device alias IPD1000-FFFFFFFFFFFFFFFF TopRight

config set device alias IPD1000-GGGGGGGGGGG BottomLeft

config set device alias IPD1000-HHHHHHHHHH BottomRight

You can use two methods to create a 2 x 2 video wall:

Method 1:

1. Use**vw add vw1 2 2pc1**. This command is used to create a video wall **vw1**with two rows and two columns and assign TX **pc1**.
2. Use **vw add vw1 TopLeft 1 1 TopRight 1 2 BottomLeft 2 1 BottomRight 2 2**. This command is used to add RX to video wall **vw1** and assign their positions. Once this command is executed, RX will play video wall.

Method 2:

Use **vw add vw1 layout 2 2 pc1TopLeft TopRight BottomLeft BottomRight**. This command isa easier way to add a video wall. It just needs one line of command.