



API REFERENCE

iSwitch 401MV

4x1 Multiviewer Switcher — RS-232 API Command Reference

COMMUNICATION

The iSwitch 401MV exposes the following control interface. All commands below are drawn from the Infobit API command reference database for this device.

Parameter	Value
Transport	RS232
Port / Serial Settings	115200,8,N,1
Terminator	!
Total Commands	56
Command Categories	Audio, EDID, Multiview, Routing, System, Video

COMMAND REFERENCE

Commands are grouped by function below. Each entry lists the command syntax, a worked example, the expected response, and a functional description, exactly as catalogued in the Infobit API command database.

Audio

Command	Syntax	Example	Response	Description
Set Output Audio Source	s output audio x!	s output audio 0!	output audio: <source>	Set output audio source; x=0~4 (0:follow window 1 selected source, 1-4:HDMI 1-4 input audio)
Get Output Audio Source	r output audio!	r output audio!	output audio: <source>	Get output audio source
Volume Up	s output audio vol+!	s output audio vol+!	output audio volume: <0-100>	Increase output audio volume
Volume Down	s output audio vol-!	s output audio vol-!	output audio volume: <0-100>	Decrease output audio volume
Set Volume	s output audio vol x!	s output audio vol 30!	output audio volume: <x>	Set output audio volume value; x=0~100; default 100
Get Volume	r output audio vol!	r output audio vol!	output audio volume: <0-100>	Get output audio volume
Set Audio Mute	s output audio mute x!	s output audio mute 0!	output audio mute: <on/off>	Set output audio mute on/off; x=0 off, x=1 on; default off
Get Audio Mute	r output audio mute!	r output audio mute!	output audio mute: <on/off>	Get output audio mute on/off

EDID

Command	Syntax	Example	Response	Description
Set Input EDID	s input EDID x!	s input EDID 1!	input EDID:<mode>	Set HDMI input EDID mode; x=1~19 (1:4K2K60_444 Stereo 2.0 ... 17:720p Stereo 2.0, 18:copy from HDMI out, 19:USER1); default 4K2K60_444 Stereo Audio 2.0
Get Input EDID	r input EDID!	r input EDID!	input EDID:<mode>	Get input EDID mode
Set User1 EDID Data	s edid user1 <hex bytes>!	s edid user1 00 FF FF FF FF ...!	user1 EDID data: 00 FF FF FF FF FF FF 00 ...	Set user1 EDID data
Get User1 EDID Data	r edid user1!	r edid user1!	user1 EDID data: 00 FF FF FF FF FF FF 00 ...	Get user1 EDID data

Multiview

Command	Syntax	Example	Response	Description
Set Multiview Mode	s multiview x!	s multiview 1!	<mode name>	Set multi-viewer display mode; x=1~5 (1:single screen 2:PIP 3:PBP 4:triple screen 5:quad screen); default single screen
Get Multiview Mode	r multiview!	r multiview!	<mode name>	Get multi-viewer display mode
Set Window Input	s window x in y!	s window 1 in 1!	window <x> select HDMI <y>	Select one input for one display window in current multiview mode; x=1~4 window, y=1~4 HDMI input
Get Window Input	r window x in!	r window 1 in!	window <x> select HDMI <y>	Get windows selected input source; x=0 all, 1~4 one window
Set Window Border	s window x border y!	s window 1 border 1!	window <x> border <on/off>	Set the border mode of the specified window; x=1~4, y=0 off, y=1 on; default off
Get Window Border	r window x border!	r window 1 border!	window <x> border <on/off>	Get the border mode of windows; x=0 all, 1~4 one window
Set Window Border Color	s window x border color y!	s window 1 border color 1!	window <x> border color:<color>	Set the border color of the specified window; x=1~4, y=1~9 (1:BLACK 2:RED 3:GREEN 4:BLUE 5:YELLOW 6:MEGENTA 7:CYNA 8:WHITE 9:GRAY); default YELLOW
Get Window Border Color	r window x border color!	r window 1 border color!	window <x> border color:<color>	Get the border color of windows; x=0 all, 1~4 one window
Set PIP User Position/Size	s PIP Hstart Vstart Hsize Vsize!	s PIP 10 10 20 20!	PIP <Hstart> <Vstart> <Hsize> <Vsize>	Set PIP window to user define mode; each value 1~100;

Command	Syntax	Example	Response	Description
				Hstart+Hsize<=101, Vstart+Vsize<=101
Set PIP Position	s PIP position x!	s PIP position 3!	PIP on <position>	Set PIP window position; x=1~5 (1:Left Top 2:Left Bottom 3:Right Top 4:Right Bottom 5:user)
Get PIP Position	r PIP position!	r PIP position!	PIP on <position>	Get PIP window position
Set PIP Size	s PIP size x!	s PIP size 3!	PIP size: <size>	Set PIP window size; x=1~4 (1:small 2:middle 3:large 4:user)
Get PIP Size	r PIP size!	r PIP size!	PIP size: <size>	Get PIP window size
Set PBP Mode	s PBP mode x!	s PBP mode 1!	PBP mode <x>	Set PBP windows display mode; x=1~2 (PBP mode 1 / PBP mode 2)
Get PBP Mode	r PBP mode!	r PBP mode!	PBP mode <x>	Get PBP windows display mode
Set PBP Aspect	s PBP aspect x!	s PBP aspect 1!	PBP aspect: <aspect>	Set PBP windows display aspect ratio; x=1~2 (1:Full screen 2:16:9)
Get PBP Aspect	r PBP aspect!	r PBP aspect!	PBP aspect: <aspect>	Get PBP windows display aspect ratio
Set Triple Mode	s triple mode x!	s triple mode 1!	triple mode <x>	Set triple windows display mode; x=1~2
Get Triple Mode	r triple mode!	r triple mode!	triple mode <x>	Get triple windows display mode
Set Triple Aspect	s triple aspect x!	s triple aspect 1!	triple aspect: <aspect>	Set triple windows display aspect ratio; x=1~2 (1:Full screen 2:16:9)
Get Triple Aspect	r triple aspect!	r triple aspect!	triple aspect: <aspect>	Get triple windows display aspect ratio
Set Quad Mode	s quad mode x!	s quad mode 1!	quad mode <x>	Set quad windows display mode; x=1~2
Get Quad Mode	r quad mode!	r quad mode!	quad mode <x>	Get quad windows display mode
Set Quad Aspect	s quad aspect x!	s quad aspect 1!	quad aspect: <aspect>	Set quad windows display aspect ratio; x=1~2 (1:Full screen 2:16:9)
Get Quad Aspect	r quad aspect!	r quad aspect!	quad aspect: <aspect>	Get quad windows display aspect ratio

Routing

Command	Syntax	Example	Response	Description
Set Auto Switch	s auto switch x!	s auto switch 0!	auto switch <on/off>	Enable/disable auto switch feature (single screen mode); x=0 disable, x=1 enable; default off
Get Auto Switch	r auto switch!	r auto switch!	auto switch <on/off>	Get auto switch feature state

Command	Syntax	Example	Response	Description
Select Input Source	s in source x!	s in source 1!	HDMI <x>	Route input source to output (single screen mode); x=1~4 (HDMI 1-4)
Get Input Source	r in source!	r in source!	HDMI <x>	Get output selected input source

System

Command	Syntax	Example	Response	Description
Help	help!	help!	<API list>	Lists all commands
Get Device Model	r type!	r type!	4x1 HDMI Multiviewer	Get device model
Get Firmware Version	r fw version!	r fw version!	MCU FW version x.xx.xx SCALER FW version x.xx.xx	Get Firmware version
Power On/Off	power z!	power 1!	power on System Initializing... Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx	Power on/off the device; z=0 power off, z=1 power on
Get Power State	r power!	r power!	power on / power off	Get current power state
Reboot	reboot!	reboot!	Reboot... System Initializing... Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx	Reboot the device
Factory Reset	reset!	reset!	Reset to factory defaults System Initializing... Initialization Finished! MCU FW version x.xx.xx SCALER FW version x.xx.xx	Reset to factory defaults

Video

Command	Syntax	Example	Response	Description
Set Output Resolution	s output res x!	s output res 3!	out resolution: <resolution>	Set output resolution; x=1~14 (1:4096x2160p60 2:4096x2160p50 3:3840x2160p60 4:3840x2160p50 5:3840x2160p30 6:3840x2160p25 7:1920x1200p60RB 8:1920x1080p60 9:1920x1080p50 10:1360x768p60 11:1280x800p60 12:1280x720p60 13:1280x720p50 14:1024x768p60); default 3840x2160p60

Command	Syntax	Example	Response	Description
Get Output Resolution	r output res!	r output res!	out resolution: <resolution>	Get output resolution
Set Output HDCP	s output hdcp x!	s output hdcp 2!	output HDCP: <mode>	Set output HDCP; x=1~3 (1:HDCP 1.4, 2:HDCP 2.2, 3:HDCP OFF); default HDCP1.4
Get Output HDCP	r output hdcp!	r output hdcp!	output HDCP: <mode>	Get output HDCP status
Set Output VKA Pattern	s output vka x!	s output vka 1!	output VKA pattern: <pattern>	Set output video keep active pattern; x=1~2 (1:black screen, 2:blue screen); default black screen
Get Output VKA Pattern	r output vka!	r output vka!	output VKA pattern: <pattern>	Get output video keep active pattern
Set Output ITC Mode	s output itc x!	s output itc 1!	output ITC: <mode>	Set output video mode; x=1~2 (1:video mode, 2:pc mode); default video mode
Get Output ITC Mode	r output itc!	r output itc!	output ITC: <mode>	Get output video mode