H Series

SNMP Protocol

Instructions

Contents

1 Applicable Products

Product Type	Product Model	Version
Video wall splicer	H series	V2.0.0.0

2 Function Scope

The following operations can be performed through SNMP:

- Video wall splicer, input card and output card information obtaining
- Screen information obtaining
- Video wall splicer status obtaining and reporting
- Input source status obtaining and reporting
- Ethernet port status obtaining and reporting
- SNMP reporting target server (IP/port number 162)
- SNMP reporting period (range: 1-60, unit: minute)

3 Operating Procedure

After updating the device to the latest version, you can test functionalities with MIB software. Enter the corresponding OID to "Get" the monitoring item, or "Set" to configure operations. Enable Trap listening to monitor reported items. Specific operations are as follows:

3.1 Enable SNMP via Firmware Update

After you update the firmware (whole unit) to V2.0.0.0, the SNMP function will automatically enable.

3.2 Retrieve Monitoring Information via a Get Request

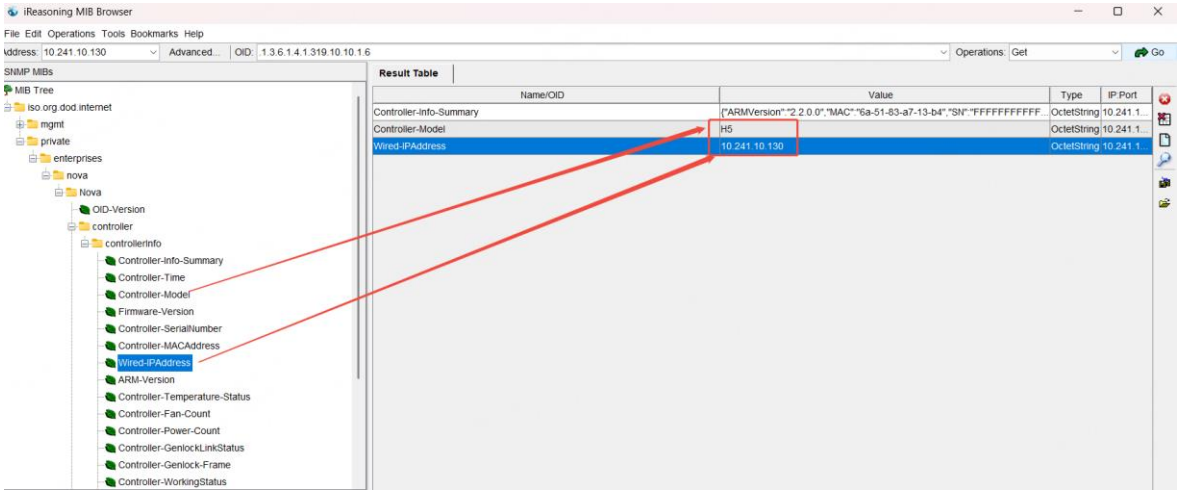
Step 1 Open the MIB Browser to enter the software interface.

Step 2 Import the mib command file (NovaMIB.txt).

Click Download to save the NovaMIB.txt to your local computer.

Step 3 By following the arrows in the figure below in order, fill in the correct device IP address and the OID corresponding to the monitoring item information in the picture, select **Get** in the **Operations** drop-down list, and finally click the **Go** button to complete the operation of getting the monitoring item information by Get.

Step 4 The execution results are displayed in the **Result Table** area, and the information contains the OID address, the results of the monitored items returned, the data type and the device IP, as shown in the figure.



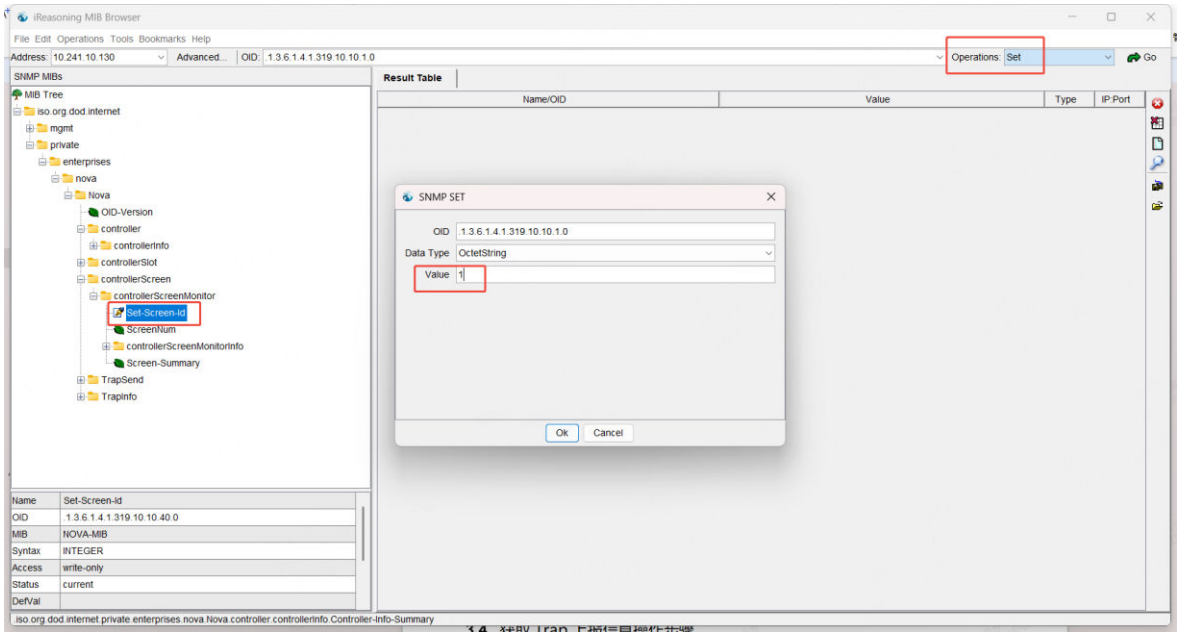
Step 5 For other monitoring items in the same category, select **Get Next** from the **Operations** dropdown list and click the **Go** button to retrieve them, as shown in the image below.

3.3 Perform a Set Request for Function Configuration

Step 1 Open the MIB Browser to enter the software interface.

Step 2 Fill in the correct device IP address and the OID corresponding to the monitoring item information at the top of the page, select **Set** in the **Operations** drop-down list and click the **Go** button.

Step 3 Fill in the correct OID in the **OID** input box of the pop-up **SNMP SET** edit area, select the corresponding type of the parameter to be sent in the **Data Type** drop-down list, and fill in the parameter value in the **Value** input box. After that, click the **OK** button to complete the report target setting operation.

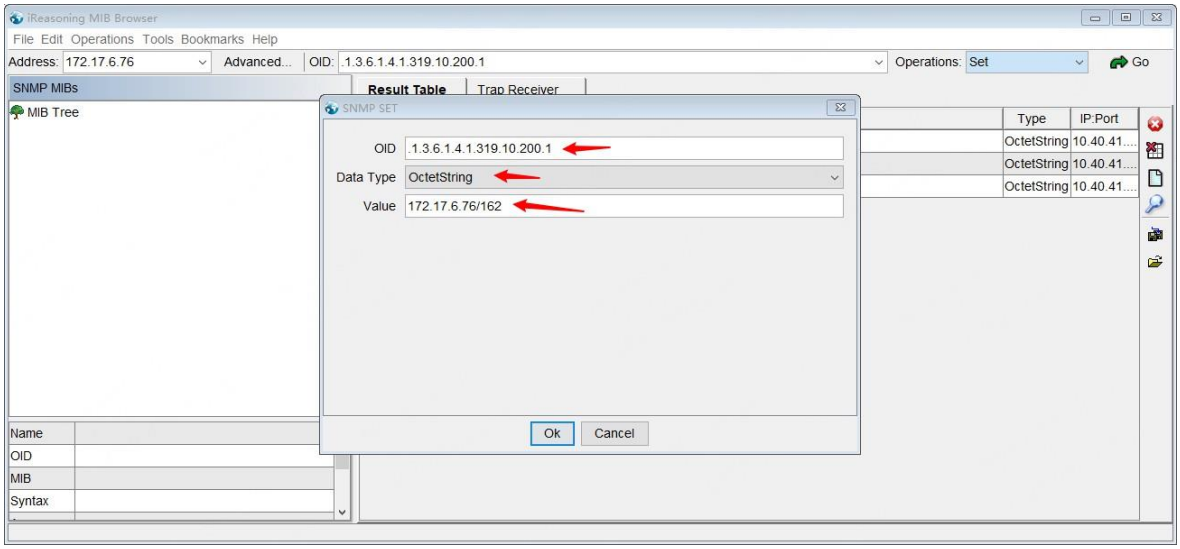


3.4 Get Trap Reporting Information

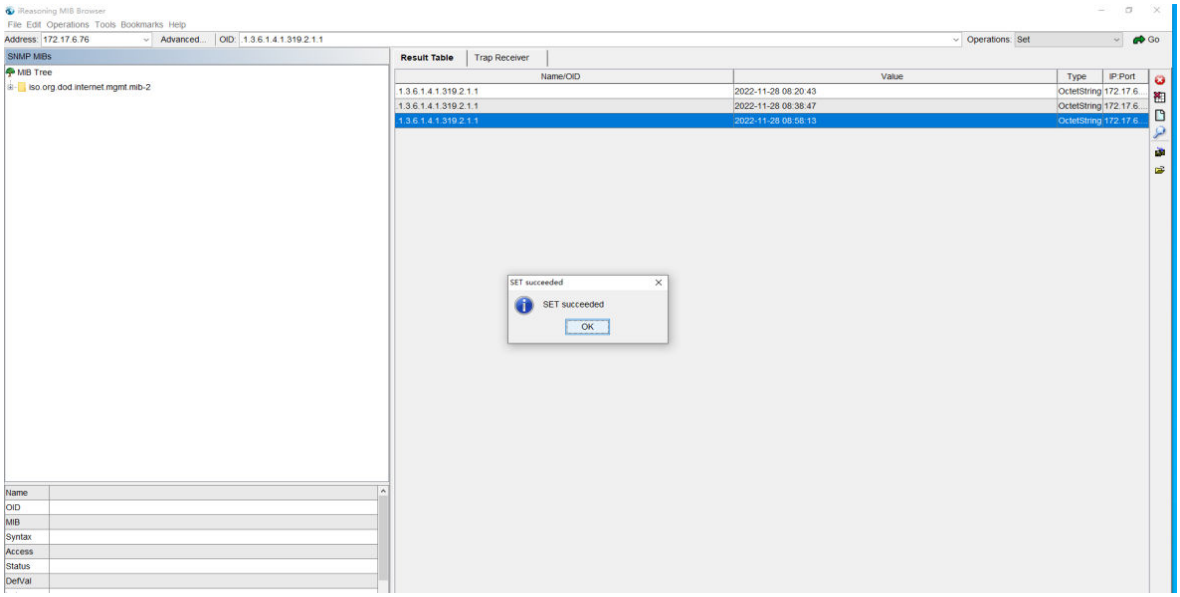
Step 1 Open the MIB Browser to enter the software interface.

Step 2 Fill in the correct device IP address and the OID corresponding to the monitoring item information at the top of the page, select **Set** in the **Operations** drop-down list and click the **Go** button.

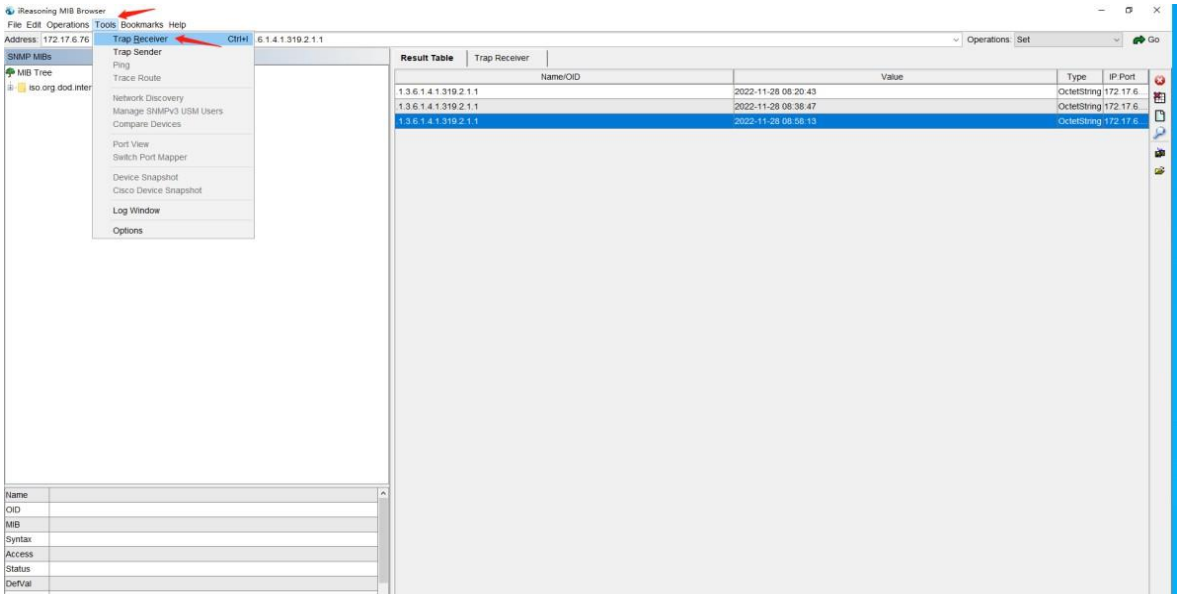
Step 3 In the OID input box of the pop-up **SNMP SET** edit area, fill in 1.3.6.1.4.1.319.10.200.1, select the corresponding type OctetString of the parameter to be sent in the **Data Type** drop-down list, and fill in the parameter value 172.17.6.179/162 in the **Value** input box (recommended port: 162).



Step 4 Click the **OK** button to complete the **SNMP Trap** server setup operation.

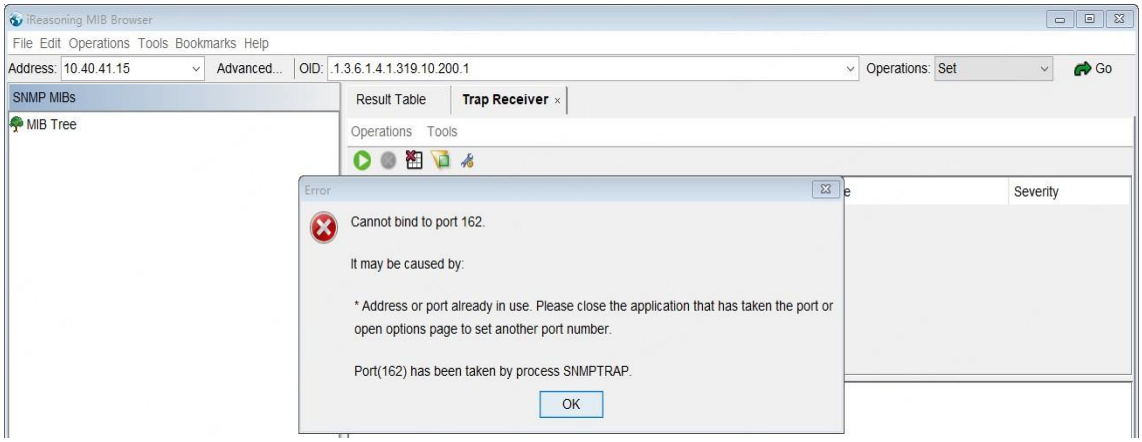


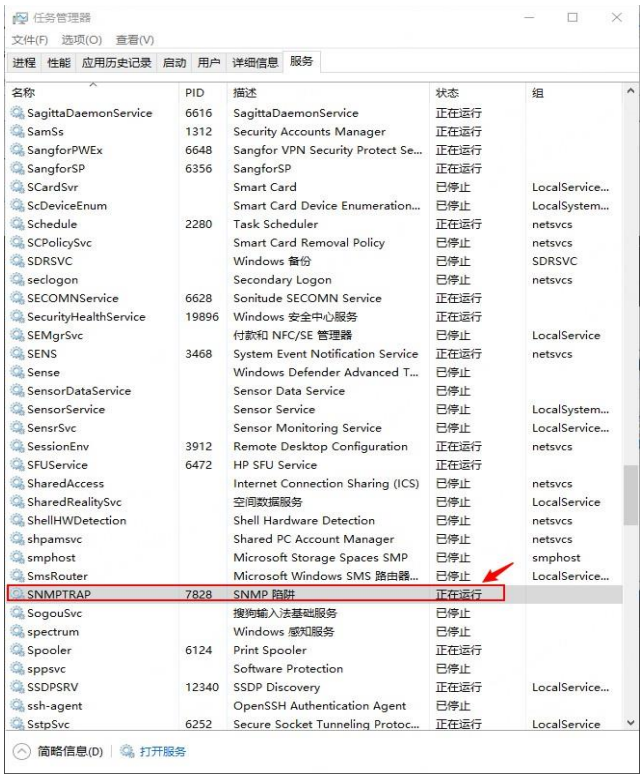
Step 5 Click on the **Tools** option in the menu bar of the software and select the **Trap Receiver** option in the drop-down menu that opens to complete the operation of getting information of monitoring items by Trap.



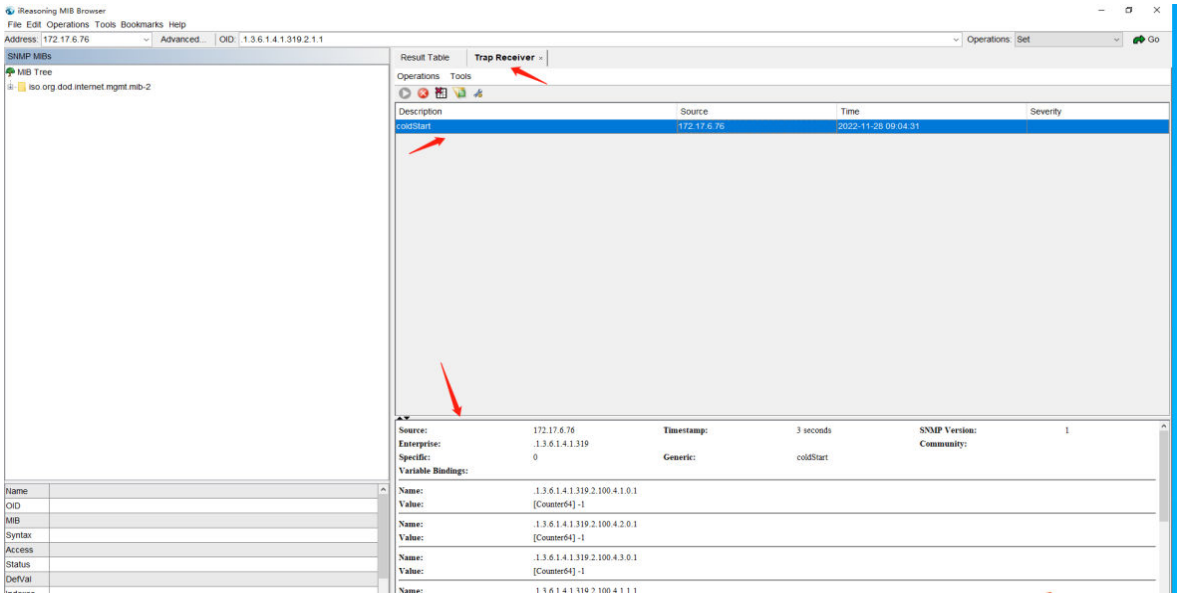
Note:

If the Windows operating system is using port 162, an error message will appear. To resolve this, close the SNMP TRAP service in the Task Manager to enable proper listening.





Step 6 The execution results are displayed in the **Trap Receiver** area, as shown in the figure. Detailed information can be viewed in the details display area below by clicking on the specific entry in the **Description**.

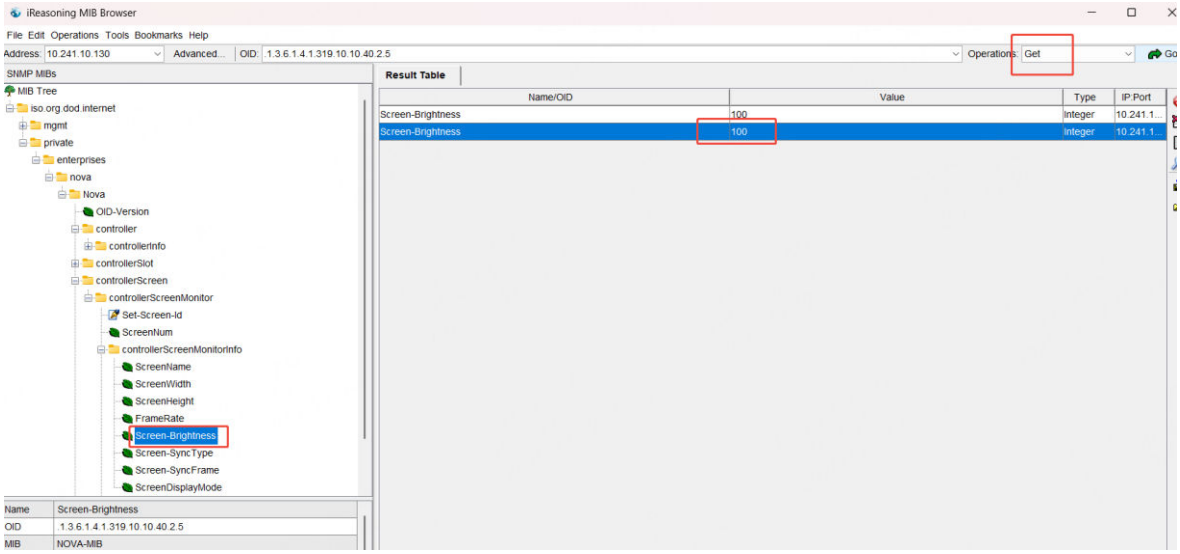


4 Examples

Software Used: MIB Software

- Get Example:

  Example 1 (Typical scenario): Test retrieving the current screen brightness. The value obtained is 100, indicating the screen brightness is at 100%.

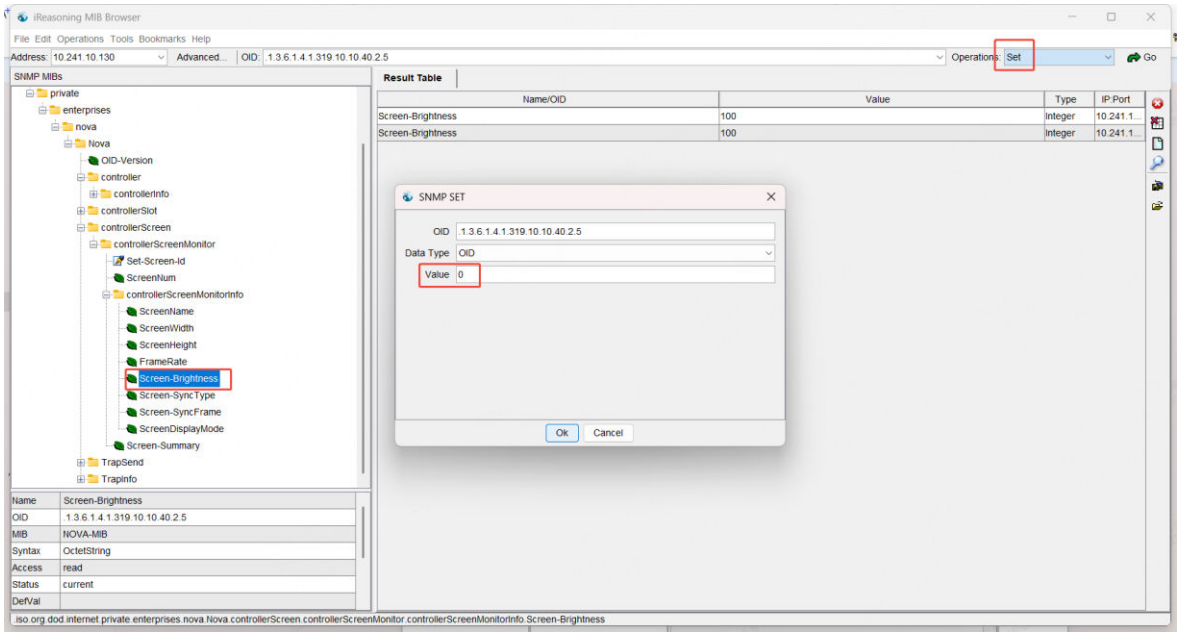


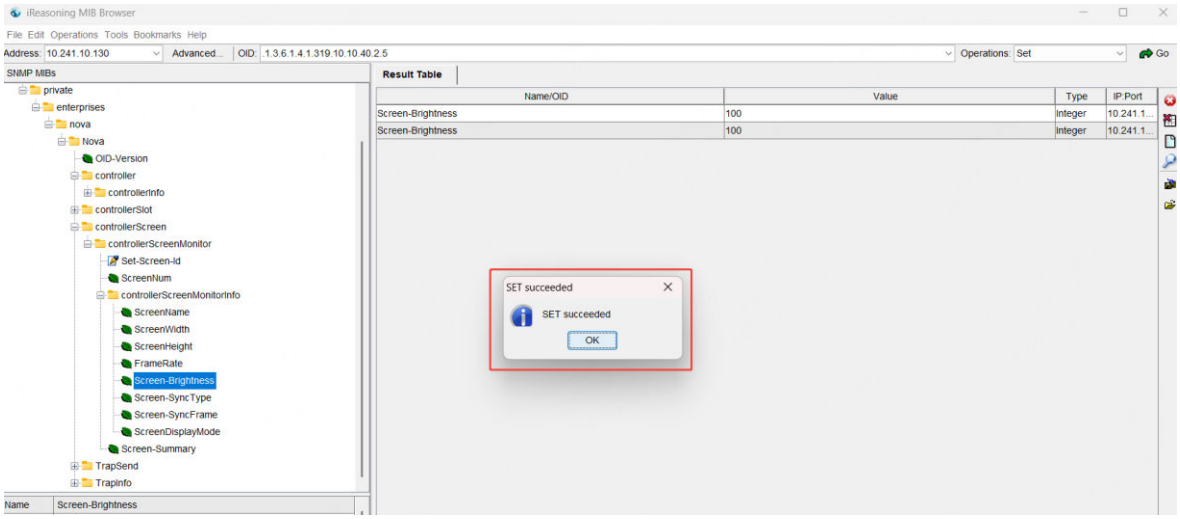
- Set Example:

  Set screen brightness to 0.

  Enter the OID for setting screen brightness, select **Set** as the operation type. In the popup input box, set the brightness to 0 and click **OK**. A **SET succeeded** message will confirm the setting was successful.

Then, choose **Get** to check the current screen brightness, or look at the screen to confirm it's at 0%.





5 H Series Video Wall Splicer and SNMP OID Parameter Comparison

N in the OID denotes a numerical value and takes a value in the range of 1 to the maximum value of the quantity (the maximum value of the quantity is obtained by the corresponding OID).

5.1 Device Information

OID Value	Category Description	Module	Description	Permission	Data Type	Is Trap	Data Value	Example
1.3.6.1.4.1.319.10.1	OID version		OID version	Read only	String	No	V1.0.0.T1	V1.0.0.T1
1.3.6.1.4.1.319.10.10	Video wall splicer							
1.3.6.1.4.1.319.10.10.1.0			Summary of video wall splicer information	Read only	String	No		{ "ARMVersion": "V1.9.9.0", "MAC": "5e:e8:13:29:52:2e", "SN": "FFFFFFFFFFFFFFFF", "cpuStatus": 0, "fansCount": 3, "genlockFrame": 0, "genlockStatus": 0, "ip": "10.241.10.245", "memStatus": 0, "name": "H2", "powerCount": 2, "status": 1, "temperature": 0, "time": "2025-05-30 14:46:21", "version": "V1.9.9.0" }
1.3.6.1.4.1.319.10.10.1.1	1.3.6.1.4.1.319.10.10.10 Indicates the video wall splicer status. (Dynamic data, changeable)	Video wall splicer	Video wall splicer time	Read only	String	No		2006/1/3 15:04:05
1.3.6.1.4.1.319.10.10.1.2			Video wall splicer model	Read only	String	No		H15
1.3.6.1.4.1.319.10.10.1.3			Video wall splicer's firmware version	Read only	String	No		V1.9.8.0
1.3.6.1.4.1.319.10.10.1.4			Serial number (SN)	Read only	String	No		130b0d000000000
1.3.6.1.4.1.319.10.10.1.5			MAC address	Read only	String	No		b0:41:6f:07:01:c9
1.3.6.1.4.1.319.10.10.1.6			Wired IP address	Read only	String	No		10.40.41.223
1.3.6.1.4.1.319.10.10.1.7			ARM version	Read only	String	No		2024.10.10 MAIN CTRL V1.9.8.0
1.3.6.1.4.1.319.10.10.1.8			Video wall splicer's temperature status	Read only	Int	No	Normal: 0 Abnormal: 1	
1.3.6.1.4.1.319.10.10.1.9			Number of fans	Read only	Int	No		6
1.3.6.1.4.1.319.10.10.1.10			Number of power supplies	Read only	Int	No		4
1.3.6.1.4.1.319.10.10.1.11			Genlock	Read only	Int	No	Not connected: 0 Connected: 1	
1.3.6.1.4.1.319.10.10.1.12			Genlock frame rate	Read only	Int	No		0
1.3.6.1.4.1.319.10.10.1.13			System working status	Read only	Int	No	0: Abnormal 1: Normal	0: Abnormal 1: Normal
1.3.6.1.4.1.319.10.10.1.14			Video wall splicer's CPU status	Read only	Int	Yes	Normal: 0 Abnormal: 1	0
1.3.6.1.4.1.319.10.10.1.15			Video wall splicer's memory status	Read only	Int	No	Normal: 0 Abnormal: 1	
1.3.6.1.4.1.319.10.10.1.16			Fan status	Read only	String	No	Normal: 0 Abnormal: 1	[{ "fanId": 0, "status": 0 }, { "fanId": 1, "status": 0 }, { "fanId": 2, "status": 0 }]
1.3.6.1.4.1.319.10.10.1.17			Video wall splicer's power status	Read only	String	No	0: Not connected 1: Connected	[{ "powerId": 0, "status": 0 }, { "powerId": 1, "status": 0 }]

5.2 Input Card Slot Data

OID Value	Category Description	Module	Description	Permission	Data Type	Is Trap	Data Value	Example
1.3.6.1.4.1.319.10.10.20.0	1.3.6.1.4.1.319.10.10.20 Input card slot data	Input card slot	Set input card slot ID.	Set only	Int	No	1	1
1.3.6.1.4.1.319.10.10.20.1			Number of input card slots	Read only	Int	No		1
1.3.6.1.4.1.319.10.10.20.3			Input card information summary	Read only	Int	No	JSON string	{ "SN": "ffffffffffffffff", "inputSourceCount": 1, "status": 1, "version": "1.9.9.0" }
1.3.6.1.4.1.319.10.10.20.2.1			Input card slot status	Read only	Counter64	No	0: Abnormal 1: Normal 2: Unable to go online (communication timeout)	
1.3.6.1.4.1.319.10.10.20.2.2			Input card firmware version	Read only	String	No		
1.3.6.1.4.1.319.10.10.20.2.3			Input card SN	Read only	String	No		
1.3.6.1.4.1.319.10.10.20.2.4			Number of input sources connected to input cards	Read only	Int	No		1
1.3.6.1.4.1.319.10.10.20.4			Set the ID of input card slot N and input source Y	Set only	String	No		{ "inputSlotId": 0, "sourceId": 0 }
1.3.6.1.4.1.319.10.10.20.5.1			Signal status of input source Y connected to the card installed into input card slot N	Read only	Int	No	0: No signals, 1: With signals Signal status [For input connectors, 1: No sources, 2: Signal loss (not saved after power failure); for output connectors, 0: Not connected, 1: Connected]	0
1.3.6.1.4.1.319.10.10.20.5.2			Resolution width of input source Y connected to the card installed into input card slot N	Read only	Int	No	1920	
1.3.6.1.4.1.319.10.10.20.5.3			Resolution height of input source Y connected to the card installed into input card slot N	Read only	Int	No	1080	
1.3.6.1.4.1.319.10.10.20.5.4			Resolution and frame rate of input source Y connected to the card installed into input card slot N	Read only	Int	No	60	
1.3.6.1.4.1.319.10.10.20.5.5			Type of input source Y connected to the card installed into input card slot N	Read only	Int	No		0:unknown 1: EXP 2: Single Link DVI 3: Dual Link DVI 4: HDMI1.3 5: HDMI1.4 6: HDMI2.0 7: DP1.1 8: DP1.2 9: SG-SDI 10: VGA 11: CVBS 12: YpbPr 13: RJ45 14: USB 15: HDBaseT 16: HDBaseT-4K 17: OpticalFiber 18: 12G-SDI

5.3 Output Card Slot Data

OID Value	Category Description	Module	Description	Permission	Data Type	is Trap	Data Value	Example
1.3.6.1.4.1.319.10.10.30.0	1.3.6.1.4.1.319.10.10.30 Output card slot data	Output card slot	Set output card slot ID.	Set only	Int	No	1	1
1.3.6.1.4.1.319.10.10.30.1			Number of output card slots	Read only	Int	No	Single-card device: N=1 (The output card slot number for a single-card device is always 1.)	

1.3.6.1.4.1.319.10.10.30.3			Summary of output card slot information	Read only	String	No	JSON string	{
								"SN": "ffffffffffffffff",
								"netPortCount": 16,
								"status": 1,
								"version": "1.6.1.0"
								}

1.3.6.1.4.1.319.10.10.30.2.1			Status of output card slot N	Read only	Counter64		0: Abnormal 1: Normal 2: Unable to go online (communication timeout)	
1.3.6.1.4.1.319.10.10.30.2.2			Firmware version of the card installed into output card slot N	Read only	String	No		
1.3.6.1.4.1.319.10.10.30.2.3			Serial number of the card installed into output card slot N	Read only	String	No		
1.3.6.1.4.1.319.10.10.30.2.4			Number of Ethernet ports on the card installed into output card slot N.	Read only	Int	No	4	4

1.3.6.1.4.1.319.10.10.30.4			Set the output card slot ID, Ethernet port ID, and receiving card ID	Set only	String	No	Receiving card ID is optional. Omit it if unused.	{
								"outputSlotId":4,
								"netportId":0,
								"recvCardId":0
								}

1.3.6.1.4.1.319.10.10.30.5.1			Link status of the Ethernet port on the card installed into the output slot	Read only	Int	No	No	
1.3.6.1.4.1.319.10.10.30.5.3			Working status of the backup Ethernet port on the card installed into the output card slot	Read only	Int	Yes	0: Backup inactive 1: Backup active	0
1.3.6.1.4.1.319.10.10.30.5.4			Link status of the backup Ethernet port on the card installed into the output card slot	Read only	Int	Yes	0: Not linked 1: Linked	0

1.3.6.1.4.1.319.10.10.30.6			Summary of receiving card information	Read only	String	No	JSON string	{
								"fpgaVersion": "V1.3.4.102",
								"mcuVersion": "V1.3.4.102",
								"temp": 47,
								"tempMax": 70,
								"tempStatus": 0,
								"volt": 440,
								"voltStatus": 0,
								"workStatus": 0
								}

1.3.6.1.4.1.319.10.10.30.7.1			Working status of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	Int	No	0: Normal 1: Abnormal	
1.3.6.1.4.1.319.10.10.30.7.2			Temperature status of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	Int	No	0: Normal 1: Alarm 2: Abnormal	0
1.3.6.1.4.1.319.10.10.30.7.3			Temperature value of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	String	No		50
1.3.6.1.4.1.319.10.10.30.7.4			Power status of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	Int	No	0: Normal 1: Alarm 2: Abnormal	0
1.3.6.1.4.1.319.10.10.30.7.5			Voltage value of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	String	No		4.6
1.3.6.1.4.1.319.10.10.30.7.6			FPGA version of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	String	No		
1.3.6.1.4.1.319.10.10.30.7.7			MCU version of receiving card X connected to Ethernet port Y on the card installed into the output card slot N	Read only	String	No		
1.3.6.1.4.1.319.10.10.30.7.8			Maximum temperature of receiving card X connected to Ethernet port Y of the card installed into the output card slot N	Read only	String	No		

5.4 Screen Data

OID Value	Category Description	Module	Description	Permission	Data Type	is Trap	Data Value	Example
1.3.6.1.4.1.319.10.10.40.0	1.3.6.1.4.1.319.10.10.40 Screen data	Screen	Set screen ID	Set only	Int	No	1	1
1.3.6.1.4.1.319.10.10.40.1			Number of screens	Read only	Int	No		1

1.3.6.1.4.1.319.10.10.40.3			Screen information summary	Read only	String	String		{
								"brightness": 100,
								"frameRate": 0,
								"height": 2160,
								"name": "222",
								"showType": 0,
								"sync": 0,
								"syncType": 0,
								"width": 3840
								}

1.3.6.1.4.1.319.10.10.40.2.1			Screen name	Read only	String	No		screen1
1.3.6.1.4.1.319.10.10.40.2.2			Screen width	Read only	Int	No		128
1.3.6.1.4.1.319.10.10.40.2.3			Screen height	Read only	Int	No		128
1.3.6.1.4.1.319.10.10.40.2.4			Screen frame rate	Read only	Int	No		0
1.3.6.1.4.1.319.10.10.40.2.5			Screen brightness	Read & write	Int	No	0 to 100	
1.3.6.1.4.1.319.10.10.40.2.6			Screen SYNC type	Read only	Int	No		0
1.3.6.1.4.1.319.10.10.40.2.7			Screen SYNC frame rate	Read only	Int	No		0
1.3.6.1.4.1.319.10.10.40.2.8			Screen display mode	Read & Write	Int	No	0: Normal display 1: Blackout 2: Freeze	

5.5 Trap Pushing

OID Value	Category Description	Module	Description	Permission	Data Type	is Trap	Data Value	Example
1.3.6.1.4.1.319.10.100.1	1.3.6.1.4.1.319.10.10.100 Trap pushing	Trap	Device exception	Trap only	String	Yes	1: Abnormal temperature 2: Abnormal voltage 3: Abnormal fan status	
1.3.6.1.4.1.319.10.100.2			Number of input sources connected to input cards	Trap only	String	Yes	1:2, Card slot: Number of connected input sources, %d:%d	
1.3.6.1.4.1.319.10.100.3			Connected output cards	Trap only	Int	Yes	1:2, Card slot: Number of connected output cards, %d:%d	
1.3.6.1.4.1.319.10.100.4			Genlock connection status	Trap only	Int	Yes	0: Not connected 1: Connected	
1.3.6.1.4.1.319.10.100.5			SNMP start time	Trap only	String	Yes	Current time, timestamp	
1.3.6.1.4.1.319.10.200.1	1.3.6.1.4.1.319.10.10.200 Trap pushing settings	Trap	Address (IP+port number) for receiving trap service	Read & Write	String	No		192.168.1.112:162
1.3.6.1.4.1.319.10.200.2			Trap reporting switch	Read & Write	Int	No	1: Enable trap reporting 2: Disable trap reporting (default)	

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