

SG-1

Media Collaboration System

User Manual | English

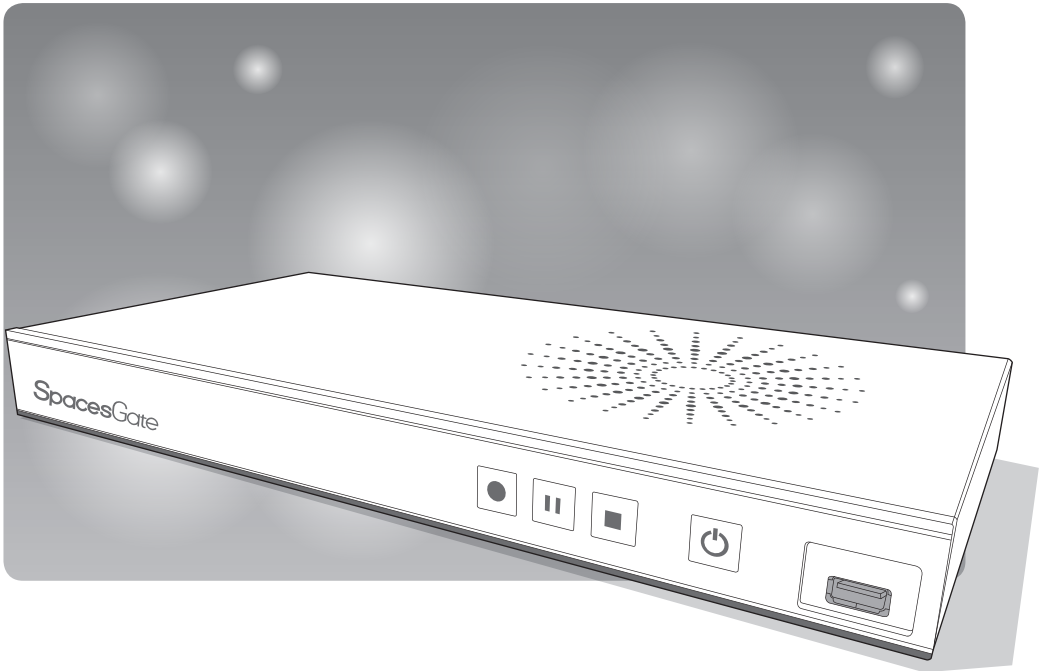


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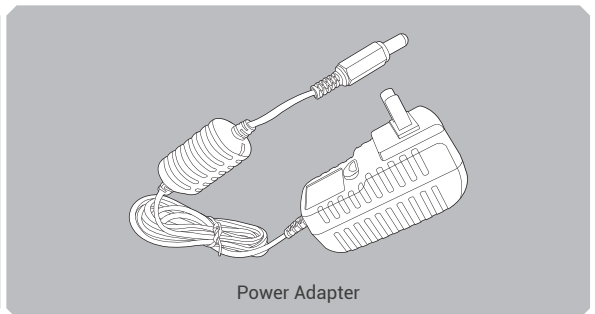
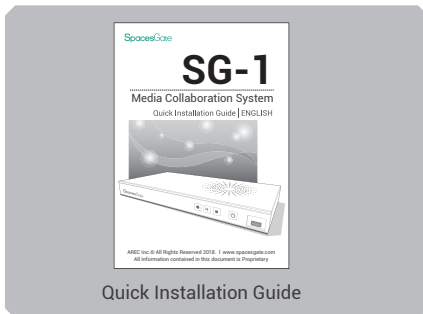
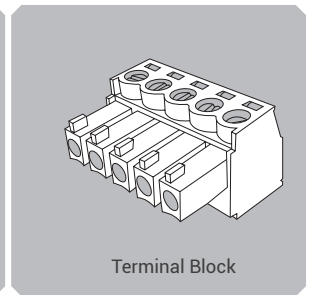
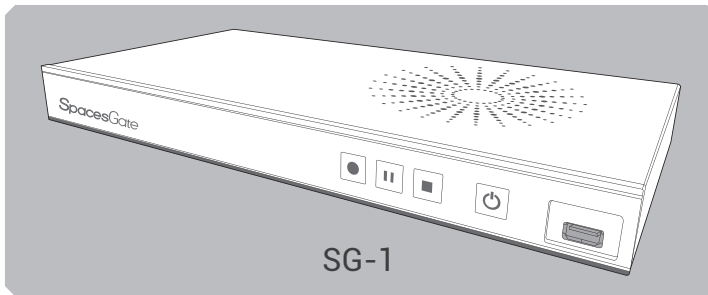
Introduction

Based on the new concept of Team Communication and Collaborative Spaces, SpacesGate SG-1, a new and innovative Media Collaboration System, changes the way we engage in a project meeting or remote training. SG-1 system can bring people together from different places for visual communication, presentations, knowledge sharing and collaboration in real-time, making it is easy to solve the business challenges agilely and effectively.

Specifications

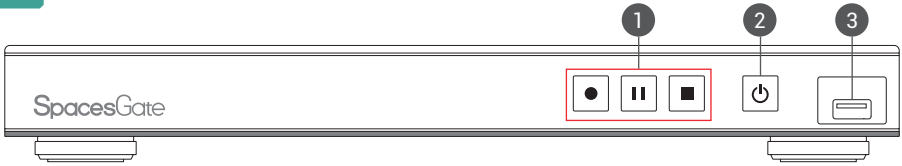
Product Name	Media Station
Model Name	SG-1
Dimension	354mm(L) x 188.2mm(W) x 46mm(H)
Weight	1710g
Power Requirement	12V/2A
Power Consumption (Max.)	24W (Max.)
Operating Temperature / Humidity	0°C ~ 40°C / 90%
Maximum normal load description	Insert 1 IP CAM to LAN port and insert 2 video signals (either HDMI or VGA input). Using external USB flash to record the transcoded video/audio. And output the transcoded video/audio to both HDMI and VGA port.

Package Contents

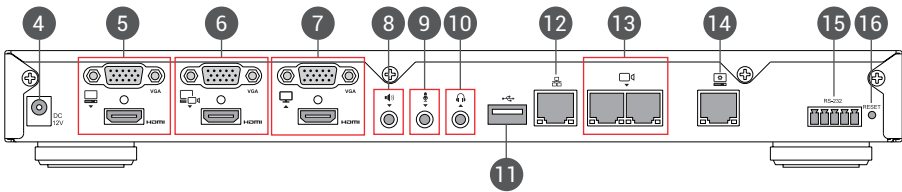




Product Appearance

Front



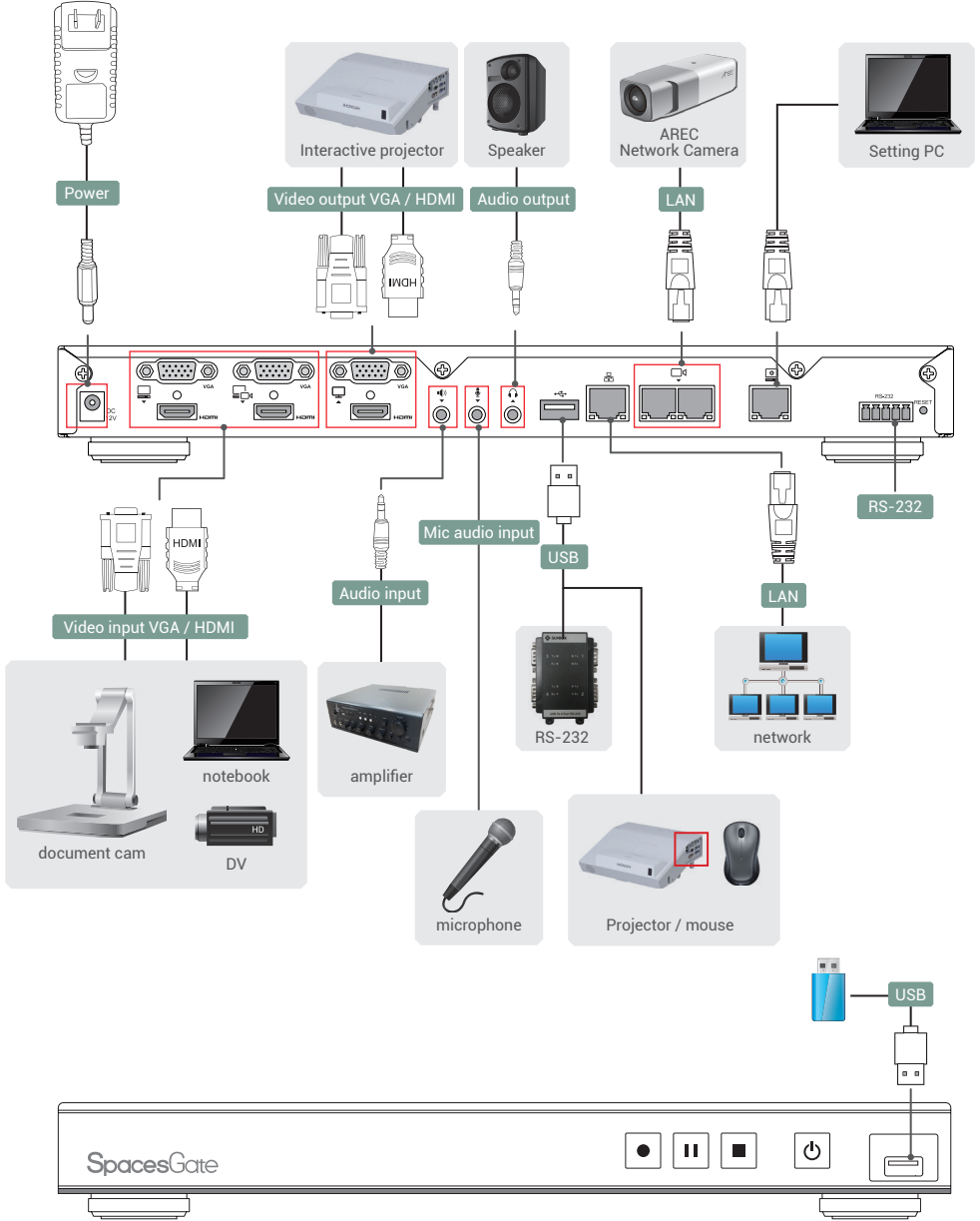
Back





No.	Name	Brief introduction
1	Record function keys	Control the Record, Pause, Stop function
2	Power	Power on/off the device
3	Front USB port	1. For external USB storage device* 2. Firmware update through USB disk
4	Power port	12V / 2A
5	Video input	VGA / HDMI input source for PC []
6	Video input	VGA / HDMI input source for camera []
7	Video output	VGA / HDMI preview output
8	Audio input	Line audio input
9	Audio input	Mic audio input
10	Audio output	Line audio output
11	Back USB port	1. USB interface for camera control over RS-232 2. Support HID Protocol for Interactive Projector
12	Network port	RJ-45 Ethernet connector for network connection
13	Network camera input	RJ-45 Ethernet connector for network camera input source
14	Setting port	RJ-45 Ethernet connector for device configuration and control
15	RS-232	Captive screw connector for control over RS-232
16	Reset button	Restoring devices to its factory default state

NOTE: The SG-1 can detect and record to USB storage devices using FAT32, NTFS file systems.

Connection



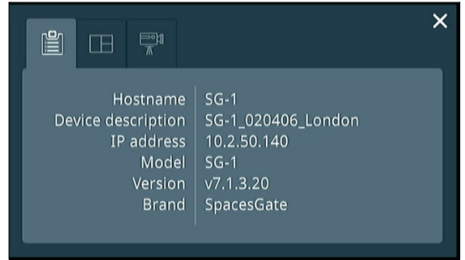
Front Panel Buttons and Indicators


Button	Display method of indicator	Product status
 <p>Record / Pause / Stop</p>	Record button glows red continuously.	Recording in progress.
	Record button flashes red rapidly.	Recording is paused.
	Record button flashes red slowly.	Recording is being finalized.
 <p>Power</p>	Solid red.	Device is powered, yet not booted up.
	Green and red light flash alternately.	Device is booting up.
	Solid green.	Boot up completed.
	Fast flashing red.	Device is shutting down.
	Fast flashing green.	Firmware updating.
	Slow flashing red.	Fan is abnormal.

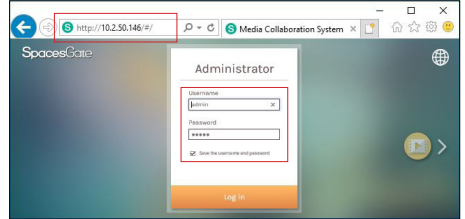
Getting start

Connect PC to the setting port of SG-1 with standard network cable. Open up the browser, and input 192.168.11.254 in the browser page.

Connect mobile device to SG-1, your device is added the segment and the segment is consistent with the IP address of the SG-1. Get IP address from About option in Setup item of the host output interface main menu and input it in the Browser page.






Log in Administrator  with default username admin and password admin, then entering the system Administrator webpages.



Overview of the Web Interface


SG-1 web interface has three user types, which are described in detail in the following chapters :

 Mini Controller	For mobile device quick start recording, log in Mini Controller from the initial login page with default username admin and password admin.
 Administrator	To setup the device, log in Administrator with default username admin and password admin, then entering System Administrator webpages. The admin account provides the user all three type of privileges.
 Video Manager	If you only need to access to the recordings, log in Video Manager with default username video and password video

Mini Controller

Username

Password



Administrator

Username

Password

Save the username and password

Video Manager

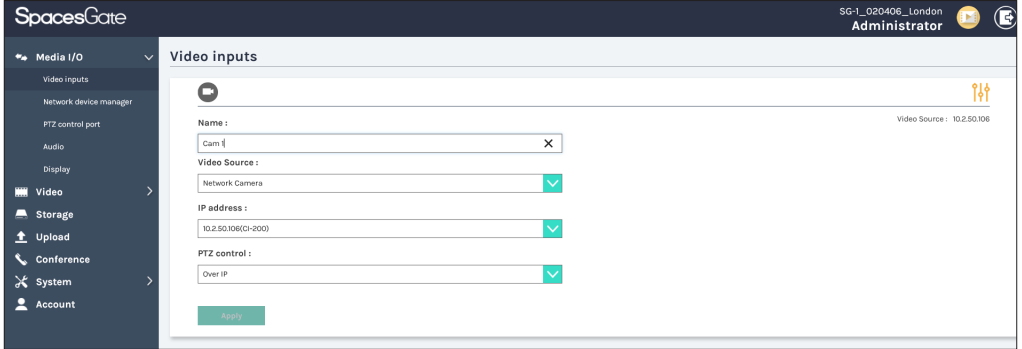
Username

Password

Save the username and password

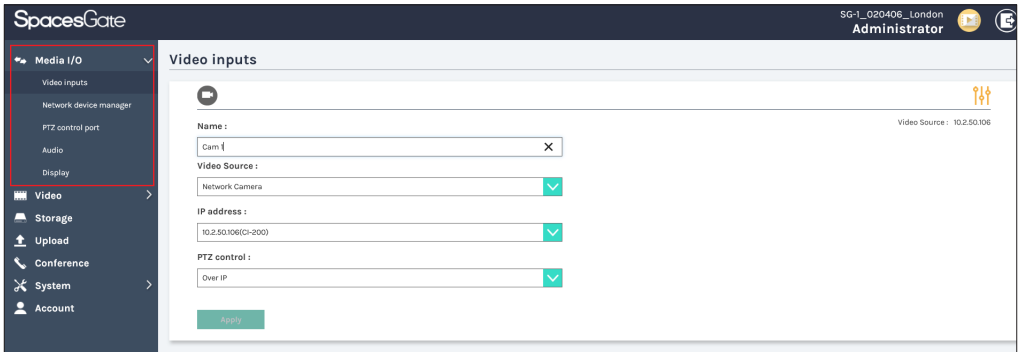
Chapter 1 Administrator

The Administrator web pages provide a system administration interface of the SG-1: it can perform [Media I/O](#), [Video](#), [Storage](#), [Upload](#), [Conference](#), [System](#), [Account](#) settings and confirm operations. The [Media I/O](#) settings make sure each input source are properly connected, and adjust the audio volume. The [Video](#) setting pages configure the recording, streaming, and other functions which define the content being recorded. [Systems](#) are pages contain basic settings and information of this device.



1.1 Media I/O


The pages within [Media I/O](#) include the following :



Video inputs	Select the signal type, video source and PTZ control method for each input.
Network device manager	List out all the connected network cameras and Auto-Tracking Mount.
PTZ control port	Set SG-1 back USB-to-RS-232 serial port to drive PTZ cameras.
Audio	Adjust the volume and select the audio input source.
Display	Set the SG-1 on screen display language.

1.1.1 Video inputs

The SG-1 is capable to process up to one video input. The name of the input is user configurable; by default is Cam 1.



Name :

Video Source :

IP address :

PTZ control :

1.1.1.1 Cam 1


- Video source can be selected from [Network Camera](#), [Encoder](#) or [Video port](#).

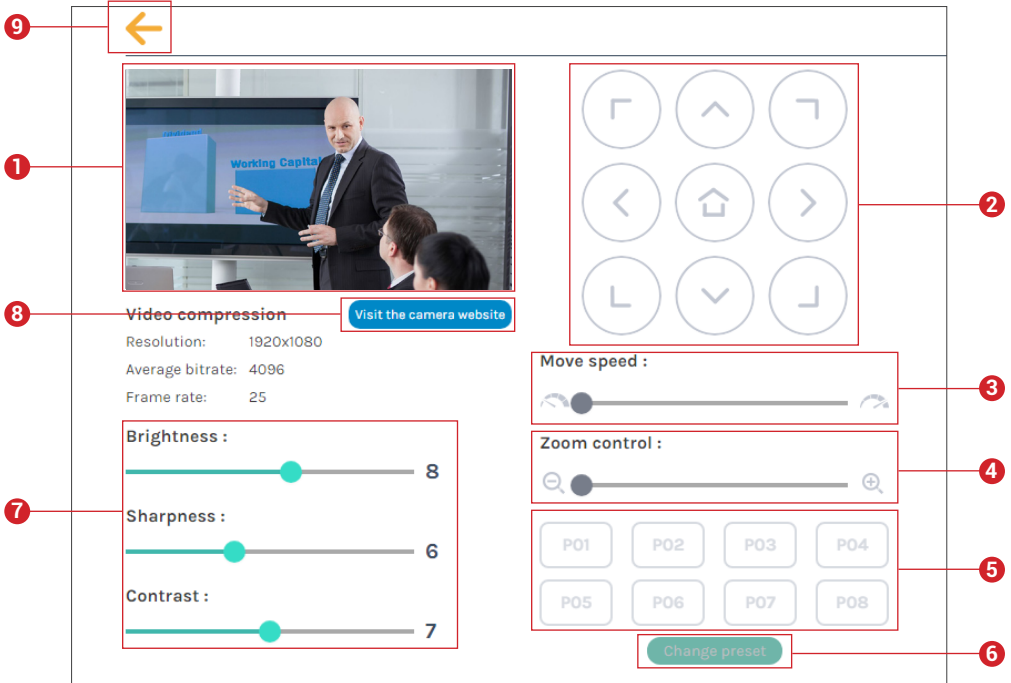
Video port	Select Video source: The SG-1 provides VGA and HDMI input options for video port.
Network Camera	Select IP address: Select from the camera ip address drop list of those available. Note: A login authentication with the camera might be required. See Media I/O, Network device manager for more details.
Encoder	Select Protocol: The available options are UDP, RTP, RTMP, or RTSP. Enter the primary and secondary URL/port number.


- PTZ control** : The SG-1 is highly integrated with PTZ cameras and provides three control methods, Over IP or via Serial port and Auto-Tracking Mount.

Serial port	Select this option when the appointed camera uses RS-232 PTZ control protocol. Then complete the Serial port selection from drop list Port 1~4. See Media I/O, PTZ control port for more details.
Over IP	The option is available when the specified signal type is a network camera. Select this option if that camera supports networking PTZ control.
Auto-Tracking Mount	Select IP address: Select from the TP-100 ip address drop list of those available. Select Tracking mode: off / Auto-Tracking / Auto-Tracking (pan only), the default is the Auto-Tracking. Note: A login authentication with the TP-100 might be required. See Media I/O, Network device manager for more details.

1.1.1.2 Advanced configuration

A preview use and further configuration of the video input is provided. After the video input setting is successfully applied, click  to enter the advanced configuration page. In the case of a PTZ camera, the direction control panel, zoom in/out control bar, and up to 8 preset positions are enabled.



1. The video input preview.
2. Direction control panel: Click the arrow buttons to move the camera.
3. Movement speed: Move leftward or rightward to set slower or faster the camera is moving.
4. Zoom in/out: Click the buttons or drag on the control bar.
5. Preset positions: Click the buttons to command that the camera go to the preset position.
6. Change preset: Click the button to modify the preset positions. Select any of the P01~P08, move the camera to the desired position by using the direction control panel or using the zoom in/out control. Click Save button to complete the change or click Cancel button to give it up.
 Note: If you use AREC CI-xxx network camera with TP-100, you can change preset of TP-100's Home.
7. Brightness, sharpness, and contrast: Slide the adjustment bar left or right to change the camera image settings.
8. Visit the camera website: Click this [Visit the camera website](#) button to enter the webcam management web site, input the verification code as prompted.
9. Click  button at upper left corner to return to the last page.

1.1.2 Network device manager

The system automatically scans and lists the network cameras and Auto-Tracking Mount connected to the SG-1 once entering the [Network device manager] page. You may click Refresh button to scan again. Click Login button and the login authentication dialog pop out.

Enter the username and password of the camera or Auto-Tracking Mount to complete the authentication. Take AREC network camera for example, enter the default username and password admin/ admin. The status then changes to OK, which indicates it is available for video input selection.

Note : If you fail to find your camera by clicking on "Refresh", please select "Video source" to "Encoder" in the "Video Inputs" and fill in your camera information.

The screenshot shows the 'Network device manager' page. On the left is a navigation menu with categories: Media I/O, Video, Storage, Upload, Conference, System, and Account. The main content area is titled 'Network device manager' and contains two sections: 'Network Camera' and 'Auto-Tracking Mount'. The 'Network Camera' section has a 'Refresh' button and a table with columns: Host name, IP address, MAC, Brand, and Status. The table lists three cameras: CI-200 (Status: OK), VC-ASDP, and CI-230. The 'Auto-Tracking Mount' section also has a 'Refresh' button and a table with the same columns, but it is currently empty with the text 'No Auto-Tracking Mount(s)'.

Host name	IP address	MAC	Brand	Status
CI-200	10.2.50.153	BC-8A-E1A0-052D	CI-200	OK
VC-ASDP	10.2.50.152	DC-E2-AC-016018		Login
CI-200	10.2.50.160	00-00-8B-0E-5163		Login
CI-230	10.2.50.153	BC-8A-E1A0-03ED		Login

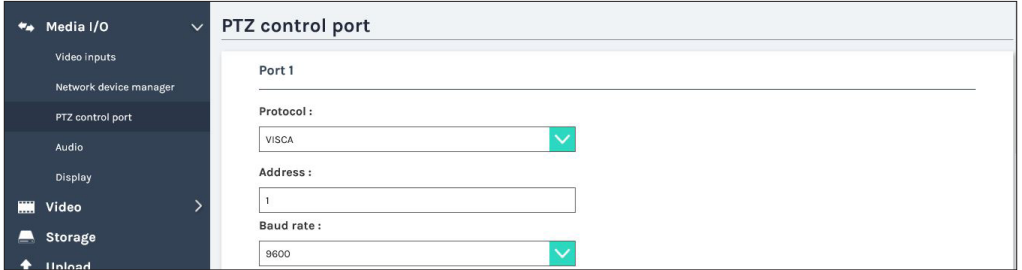
The screenshot shows a 'Login authentication' dialog box. It has a title bar with a close button (X). The dialog contains two input fields: 'User name :' and 'Password :'. Below the input fields is a green 'Authentication' button. The dialog is overlaid on a blurred background of the network device manager interface.

1.1.3 PTZ control port

The SG-1 facilitate the web-based users control PTZ cameras using RS-232 protocol. Connect an USB-to-RS-232 adapter to the SG-1 back USB port in advance. Before making any changes to this page, please get to know about the RS-232 settings of the desired PTZ camera. The following configurations must be identical to the external device settings.

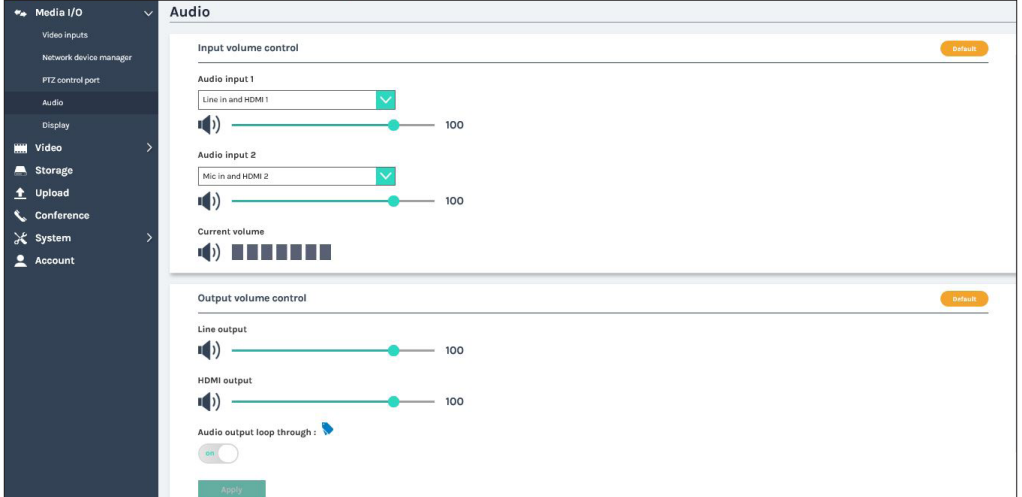
- Protocol : Available options are VISCA, PELCO-D, and PELCO-P;
- Address : Set according to the camera address for RS-232 communication. VISCA: 1-7, PELCO D/P: 1-255;
- Baud rate : 2400, 4800, 9600, and 115200

Note: Support USB to RS-232 serial port adapter with chip PL2303 or FT4232H.



1.1.4 Audio

Adjust volume and select the audio input source.



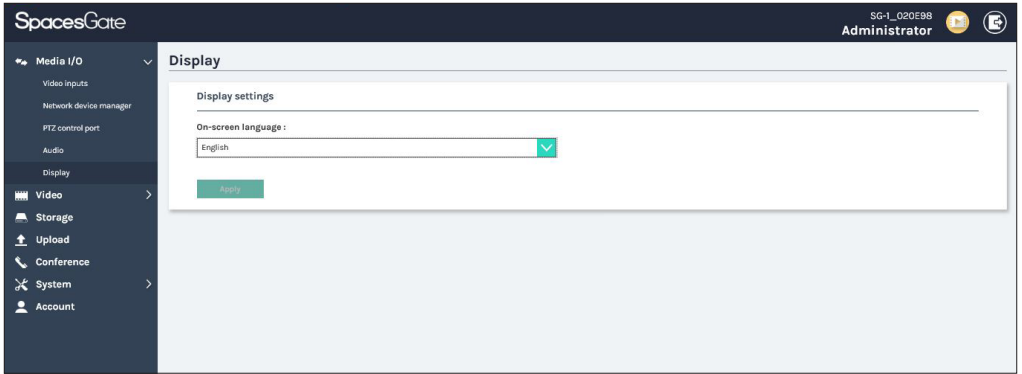
Input volume control-Users can select the sound source from the drop-down menu of Audio input 1 or Audio input 2. Tune the recorded volume from each audio input. Configurable range of sound input is 0-125,of AREC wireless microphone 0~15. The nearby volume meter indicates the encoded audio current volume.

Output volume control - Adjust the Line output or HDMI output volume.

Set Audio output loop through on/ off.

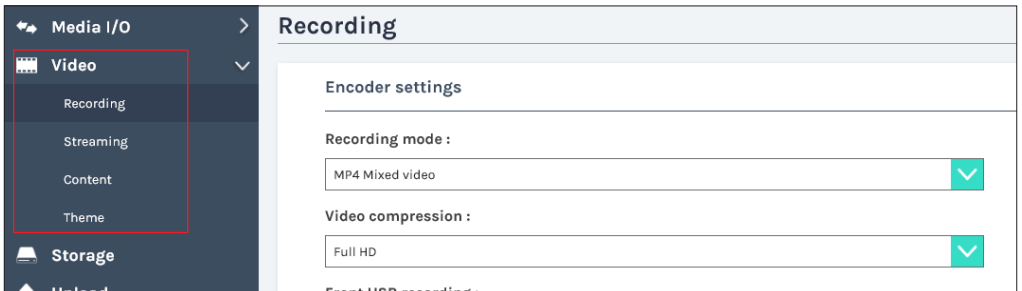
1.1.5 Display

Set the SG-1 on screen display language.



1.2 Video

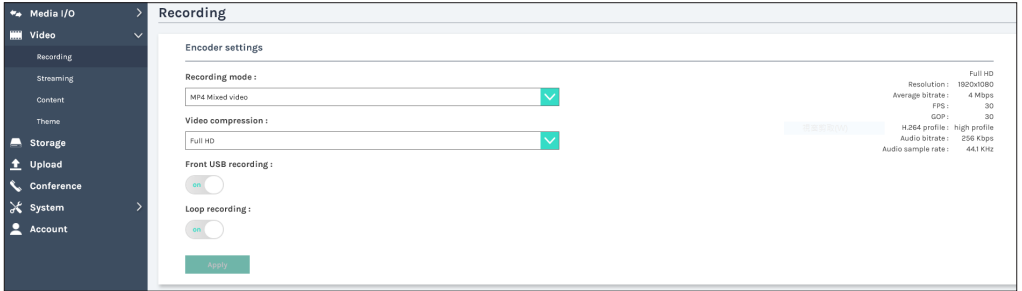
The pages within Video construct a collection of settings that defines the operating characteristics for a streaming/recording, include:



Recording	Configure Encoder settings and Bookmark settings for recording.
Streaming	Configure Encoder settings for streaming.
Content	Edit the information of the content that will be recorded.
Theme	Set the overlay files, background.

1.2.1 Recording


Set up the [Encoder settings](#), [Bookmark settings](#), [Recording file name setting](#) and [Audio settings](#) for recording.

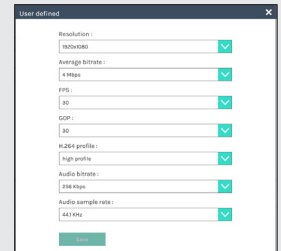


Encoder settings

- Recording mode: Available options are MP4 Mixed video and OFF.
- Video compression: There are 7 preset recording video compression profiles for different resolution and bitrate. Select one to see the option details on the right side. You may customize your own user defined option.
- Front USB recording: Set ON/OFF to enable/disable SG-1 front USB recording function. Make sure the front USB drive connected can be normally read and written and have enough space for the recorded files.
- Loop recording: Set ON/OFF to enable/disable SG-1 local storage recording rule.

Profile name	Video Resolution/ Bitrate	Application description
Full HD	1080p/ 4Mbps	Dynamic scene and large local hard disk recording.
Internet Full HD	1080p/ 3Mbps	General scene and medium local hard disk recording.
HD	720p/ 2Mbps	Static scene and small local hard disk recording.
Internet HD	720p/ 1.5Mbps	Live broadcasting through the Internet.
SD	480p/ 800kbps	Static scene for live broadcasting through the Internet.
Mobile SD	480p/ 500kbps	Live broadcasting for portable mobile devices watching.

Click  button to open customization window as shown below, and click Save button to make the option changed.



User defined

Bookmark settings : Select to add bookmark automatically off, or When video changed during recording. Click Apply button at the bottom corner when finished to apply the settings.

Bookmark settings

Add automatically :

OFF
▼

Apply

Prefix setting : Use this description is added to the Video filename as a prefix string for Download and Upload.

Recording file name setting

Prefix setting :

Apply

Audio shift : Adjust the delay of sound after video transmission. Synchronize the video and audio with consistency.

Audio settings

Audio shift :

100 ms

Apply

1.2.2 Streaming

The page provides user to change streaming settings. It is essential that the configurations follow the streaming protocol and recommended settings your server system supports.

Streaming

Encoder settings

Video compression :

Internet Full HD
▼

Apply

Internet Full HD

Resolution : 1920x1080

Average bitrate : 3 Mbps

H.264 profile : high profile

Streaming 1 settings


Live streaming :

on

URL :

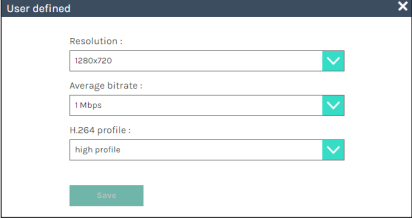
rtmp://support.larec.com:21035/live/9h73q9
...

Apply

Video compression profile – There are 7 streaming video compression profiles for different resolution and bitrate. Select one to see the option details on the right side. You may customize your own user defined option. Click  button to open customization window as shown below, and click Save button to make the option changed.

Click Apply button at the bottom corner when finished to apply the settings.

Note: The resolution for streaming cannot be larger than that for recording.




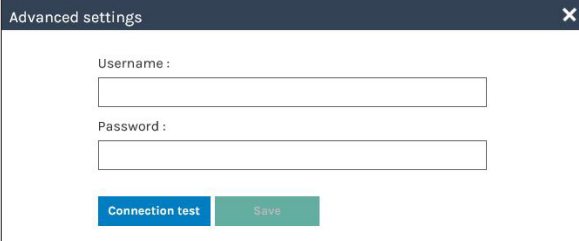
A window titled "User defined" with a close button (X) in the top right corner. It contains three dropdown menus, each with a green checkmark on the right side:

- Resolution : 1280x720
- Average bitrate : 1Mbps
- H.264 profile : high profile

At the bottom of the window is a green "Save" button.

Live streaming : Select ON/OFF to enable/ disable live streaming ability.

Click  button to open customization window as shown below, RTMP username/password and test for Wowza. Click Save button to make the option change.



A window titled "Advanced settings" with a close button (X) in the top right corner. It contains two text input fields:

- Username :
- Password :

At the bottom of the window are two buttons: "Connection test" and "Save".

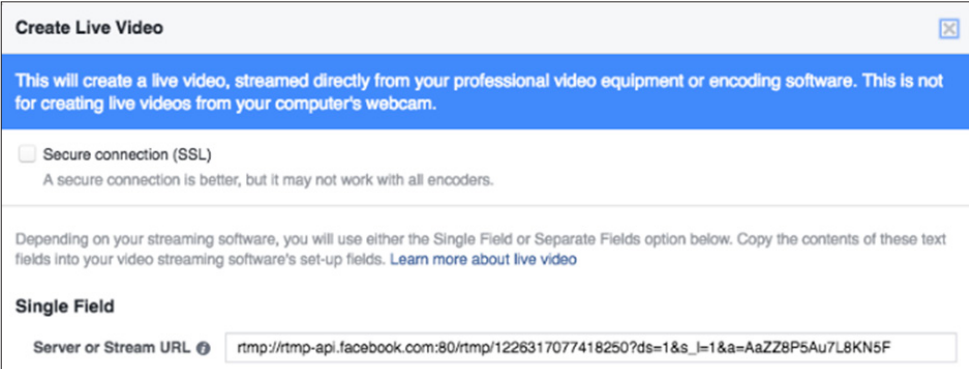
Protocol – The available protocol on the SG-1 are RTP and RTMP, the URL format is as follows :

RTMP	In the protocol setting field, copy and paste the Server or Stream URL and Stream name provided by you CDN or server administrator in the format <code>rtmp://serverurl/streamname</code> .
RTP	Enter the destination IP address and the port number where the streaming is played in the format <code>rtp://@ip:port</code> . For example, <code>rtp://@226.10.24.32:7000</code>

Followings are some popular examples for streaming settings.

Streaming to Facebook Live

Copy the contents of the Single Field, Server or Stream URL, and paste in the SG-1 streaming URL setting field.

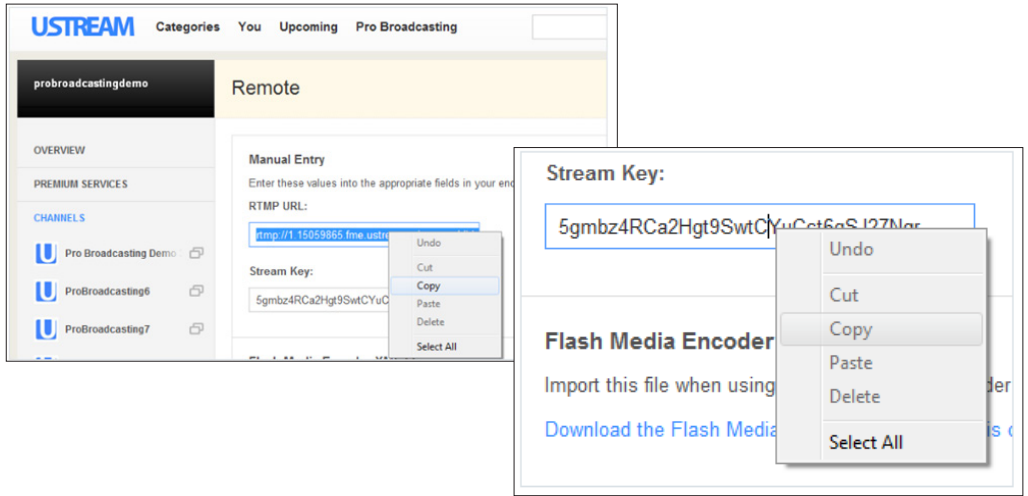


A form titled "Create Live Video" with a close button (X) in the top right corner. It contains the following elements:

- A blue banner with the text: "This will create a live video, streamed directly from your professional video equipment or encoding software. This is not for creating live videos from your computer's webcam."
- A checkbox labeled "Secure connection (SSL)" with the subtext: "A secure connection is better, but it may not work with all encoders."
- Text: "Depending on your streaming software, you will use either the Single Field or Separate Fields option below. Copy the contents of these text fields into your video streaming software's set-up fields. [Learn more about live video](#)"
- A section titled "Single Field" with a text input field labeled "Server or Stream URL" containing the text: `rtmp://rtmp-api.facebook.com:80/rtmp/1226317077418250?ds=1&s_l=1&a=AaZZ8P5Au7L8KN5F`

Streaming to Ustream

Combine the contents of both fields: RTMP URL and Stream Key, insert a slash between them. Paste this string into the SG-1 streaming URL setting field. For example: rtmp:1.15059865.fme.stream.tv/ustreamVideo/15059865/5gmbz4RCa2Hgt9SwcCYuCct6qS137Nar



Streaming to YouTube Live

Combine the contents of both fields: Primary Server URL and Stream Name, insert a slash between them. Paste this string into the SG-1 streaming URL setting field.

Streaming to a media player on a PC in the same LAN with the SG-1

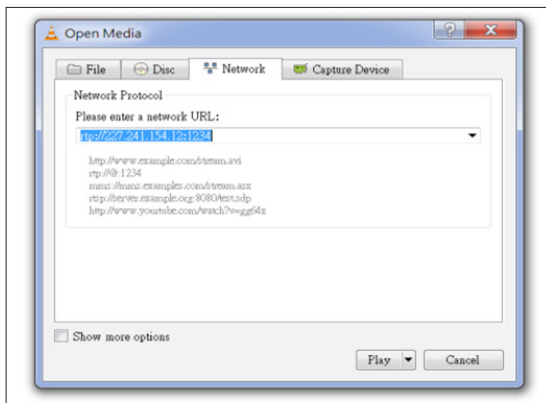
Enter the destination IP address and the port number where the streaming is played in the format rtp://@ip:port.

Unicast: For a single point connection, the destination IP must be set to the location where the stream is played.

Multicast: The destination IP must be multicast IP address where it can be shared with multiple viewers.

The SG-1 use IP address: 239.0.0.1 and port number: 5004 as the stream default. The available range of port number is 1024 to 65535.

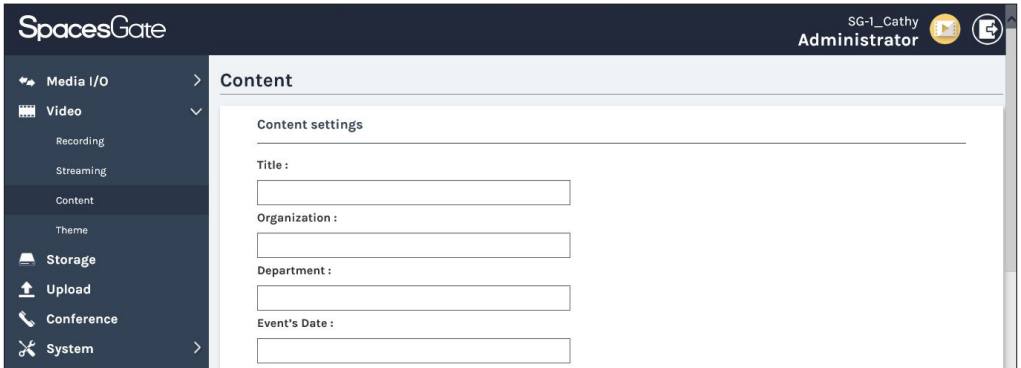
To view the stream from a media player, open the URL in a media player, such as:



1.2.3 Content

The SG-1 contains up to 13 user-configurable elements for describing content. These elements and texts will be saved in the recording data of the newly created content. Enter text in the content settings fields if desired. Click Apply button at the bottom corner when finished to apply the settings.

Note: These updates do not apply to the existing recordings. To edit the existing recording information, see Video Manager.

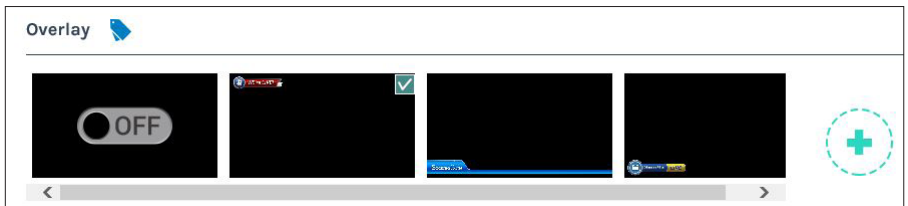


1.2.4 Theme

SG-1 by factory default provides three overlays and three backgrounds.

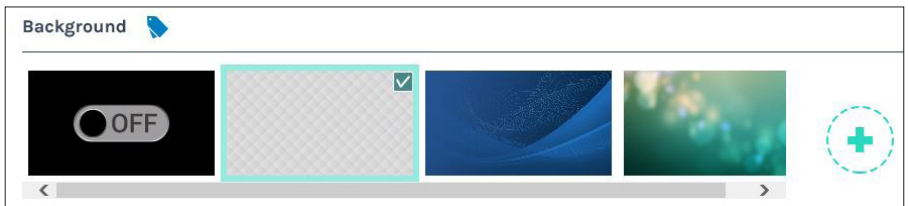
Overlay : Select and delete the overlay. Select and apply the overlay to default. Click [+] button and select the desired file in the Open dialog box. The file name would appears with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click [XCancel] Cancel to give it up.

Note: The overlay file must be in PNG format, maximum size 1920px*1080px.



Background : Select and delete the background. Select and apply the background to default. Click [+] button and select the desired file in the Open dialog box. The file name would appears with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click [XCancel] Cancel to give it up.

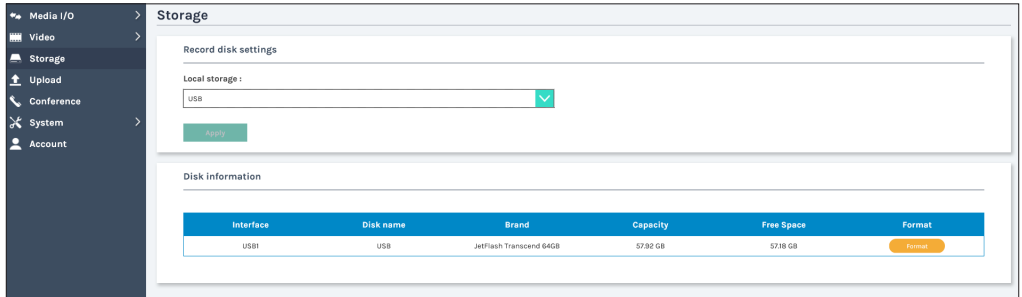
Note: The background file must be in PNG format, maximum size 1920px*1080px.



Note: The user can use the mouse to drag the order of the display.

1.3 Storage

The recording files produced by the SG-1 are stored on its own internal hard drive. This page provides user to set local storage drive or USB and reveals the disk information in the lower section.



Record disk settings

Local storage:

[Apply](#)

Disk information

Interface	Disk name	Brand	Capacity	Free Space	Format
USB1	USB	JetFlash Transcend 64GB	57.92 GB	5718 GB	Format

Record disk settings :

Local storage: The internal hard drive of SG-1 is preset for storing the recorded files. Select USB or internal hard drive from the drop-down list. Click Apply after setup is completed. New setting takes effective from next recording being created.

Disk information- Displays disk information, available storage space and total capacity. Click "Format" to clean up the local storage drive. A dialog box opens asking you to confirm the disk formatting. Click Confirm to permanently delete all recording packages.

1.4 Upload

The SG-1 is able to automatically upload recordings from its internal drive to a network server. In this page, user can configure the upload destination and tests the connection.

Auto upload- Select from the drop-down list. Start uploading "after recording is completed", or turn "OFF" the function. Followings to be configured according to the upload destination.

- Mode: Select network server type.
- IP address, port, or domain name: Configure these fields according to the upload destination.
- Folder: Enter the folder name of the upload destination.
- Authentication: Configure this section according to the upload destination authentication method.

Connection test- Click the Connection test button to validate upload settings.

Click Apply after setup is completed. New setting is effective from next recording being created.

The upload status/result of the corresponding recordings is denoted in the Video Manager web pages.

Note : If the web server is Opencast, the video title and the creator description are automatically filled with the title and presenter of the video content settings.

1.5 Conference

The conference service can set SG-1 as a video conferencing device which allows you to see and communicate with your client. With SG-1, you can create a 2-party distance learning from different countries or locations. The conference service has two mode Internal and external.

Conference

Conference settings

Conference service :

Contact list

Device description	MAC	Conference version	Firmware version
No data(s).			

Encoder settings

Video compression :

Conference Full HD	Resolution : 1920x1080 Average bitrate : 15 Mbps FPS : 30 GOP : 30 H.264 profile : high profile Audio bitrate : 256 kbps Audio sample rate : 44.1 KHz
--------------------	---

Select to internal : Set the SG-1 as conference server.

Contact list : List other SG-1s connected to this SG-1. Click "Clear All" to disconnect all SG-1s in the list.

Conference

Conference settings

Conference service :

Contact list

Device description	MAC	Conference version	Firmware version
SG-1_020406	BC:BA:E1:02:04:06	1100.1	v71.3.16

Select to external : Set the SG-1 as conference client, enter the conference server IP address and the port number.

If the conference server is another SG-1, the port number is 5070.

Conference

Conference settings

Conference service :

IP address :

Port :

Service information : Display a description of the local device and the version of the Conference.

Service information


Device description :
SG-1_020406_London

Conference version :
1.100.1

Encoder settings

- Video compression : There are 7 preset recording video compression profiles for different resolution and bitrate. Select one to see the option details on the right side. You may customize your own user defined option.

Profile name	Video Resolution/ Bitrate	Application description
Internet Full HD	1080p/ 3Mbps	Dynamic scene and large local hard disk recording.
Conference Full HD	1080p/ 1.5Mbps	General scene and medium local hard disk recording.
Internet HD	720p/ 1.5Mbps	Static scene and small local hard disk recording.
Conference HD	720p/ 1.2Mbps	Live broadcasting through the Internet.
SD	480p/ 800kbps	Static scene for live broadcasting through the Internet.
Mobile SD	480p/ 500kbps	Live broadcasting for portable mobile devices watching.

Click  button to open customization window as shown below, and click Save button to make the option changed.

User defined

User defined
✕

Resolution :

Average bitrate :

FPS :

GOP :


H.264 profile :

Audio bitrate :

Audio sample rate :

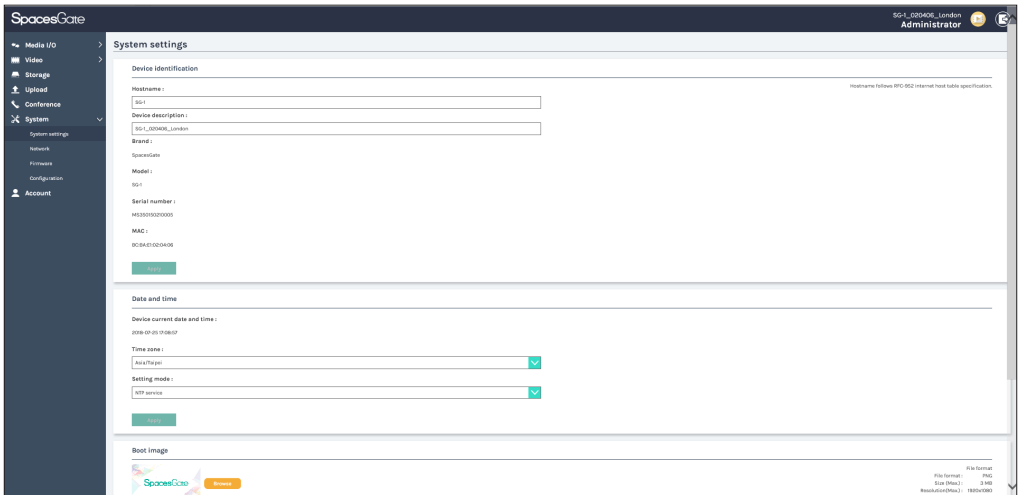
1.6 System

The pages within System include the following:

 System	System settings	Contains device identification, date and time configuration, and booting settings.
System settings	Network	The device IP assignment in the networking.
Network	Firmware	Displays the current firmware version, and provides web-based user a way to update firmware for the device.
Firmware	Configuration	Export / Import the configuration.
Configuration		

1.6.1 System settings

The basic information and initial date/time of this device are configured here.



Device identification – Set the name (host name) and description for this device.

Date and Time – Set the device date, time, and time zone manually/ be synchronized to PC, or with an external NTP (network time protocol) server.

Boot image – Change the boot screen image. The boot screen is the image you will see when you boot up the device. Click Browse button and select the desired file in the Open dialog box. The file name would appears with the newly uploaded image. Click Apply button at the bottom corner to apply the settings, or click **Cancel** to give it up.

Power – Choose how to turn on the device

Note: The boot screen file must be in PNG format, maximum size 1920x1080px.

1.6.2 Network

By default SG-1 uses DHCP to obtain an IP Address via a router or any DHCP server. To use a static IP address for your device, configure the network settings in this webpage.

Network

Network settings

The system will reboot after changing the network settings. Please re-login.

IP assignment :

DHCP

IP address :

10.2.50.146

Subnet mask :

255.255.255.0

Default gateway :

10.2.50.254

Primary DNS Server :

10.100.0.1

Secondary DNS Server :

IP assignment – Select DHCP to have IP address be allocated by a router or any DHCP server being connected; or Select Static IP and enter the required network settings including IP address / subnet mask / default gateway/ DNS server.

Click Apply at lower right corner, click Confirm in popup dialog box.

Note: The system will automatically reboot to complete the network settings. Login the updated IP address after the system restarts.

1.6.3 Firmware

This page displays the device firmware version. To update the firmware, click "Update" and a dialog box opens asking you to select the file. Select the desired file and click "Open", the dialog box closes and the file name appears underneath. Click "Apply" to start firmware update. Click "Cancel" if the uploaded file is no longer wanted.

Note: System will reboot automatically when the firmware update is completed. It might takes a few minutes. Do not shutdown/ power off the system during firmware updating.

The screenshot shows the 'Firmware' management page in the SpacesGate interface. On the left is a dark sidebar with navigation icons and labels: Media I/O, Video, Storage, Upload, Conference, System (with a dropdown arrow), System settings, Network, Firmware, Configuration, and Account. The main content area has a light blue header 'Firmware' and is divided into three sections:

- Firmware version:** Shows 'MCU version : v6.2' and 'Firmware version : v7.1.3.20'. Below is an orange 'Update' button.
- Log:** Has a sub-header 'Log' and the instruction 'Export the log file to your computer or upload it to the Customer Service Server'. It includes a 'Description :' label with a folder icon and an empty text input box. Below are two teal buttons: 'Export' and 'Upload'.
- Reset:** Has a sub-header 'Reset' and the instruction 'Reset to factory default'. It includes a checked checkbox for 'Except the network settings' and an orange 'Reset' button.

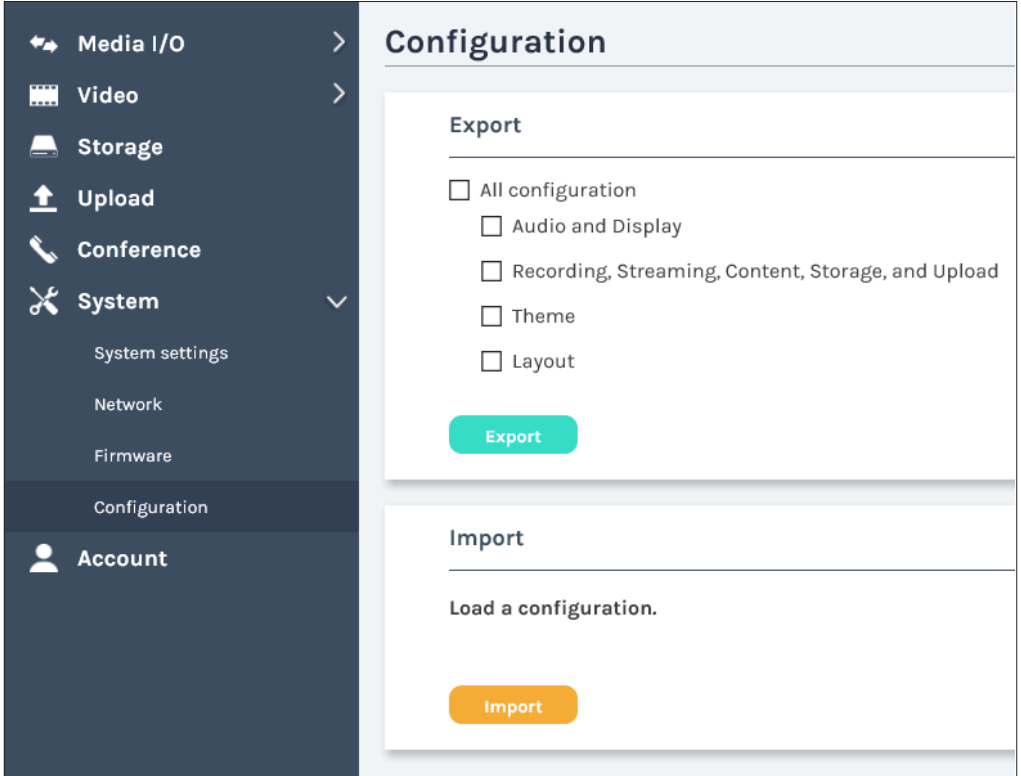
Log : Export the log file to your computer or upload it to the Customer Service Server. Input the file name, and then click "Export" or "Upload".

Note : The length of the string is 0~16 characters, allowing letters, numbers, symbols 11(~!@\$%^&*+~_).

Reset : Reset to factory default. Check if you want to keep your network settings, and click "Reset". The dialog pop out and ask you "System will reboot after setting update, continue?" Click "Confirm" to start reset.

1.6.4 Configuration

You can export or import the configuration in this page:



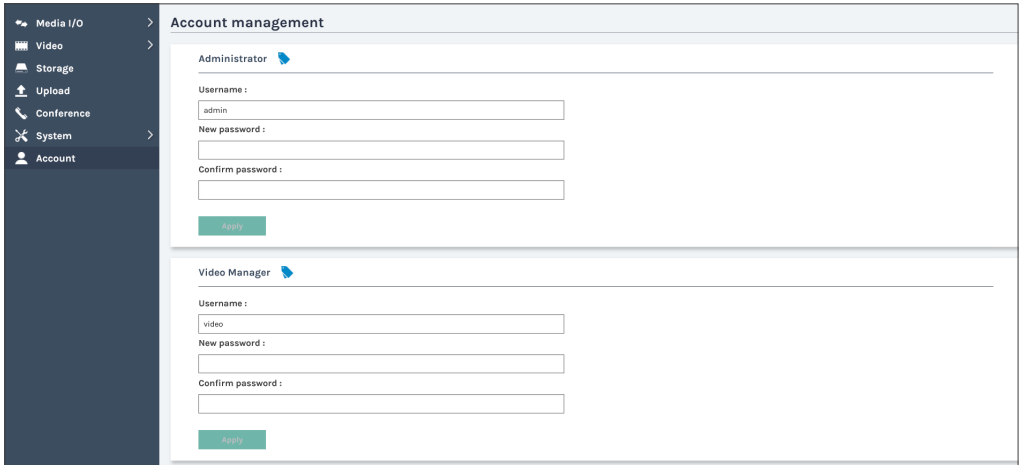
The screenshot displays the 'Configuration' page in the SpacesGate interface. On the left is a dark blue sidebar with navigation options: Media I/O, Video, Storage, Upload, Conference, System (expanded to show System settings, Network, Firmware, and Configuration), and Account. The main content area is titled 'Configuration' and is divided into two sections: 'Export' and 'Import'. The 'Export' section contains a list of checkboxes: 'All configuration', 'Audio and Display', 'Recording, Streaming, Content, Storage, and Upload', 'Theme', and 'Layout'. Below this list is a teal 'Export' button. The 'Import' section contains the text 'Load a configuration.' and an orange 'Import' button.

Export : Select the configuration to export and click "Export".

Import : Click "Import" to load a configuration.

1.7 Account

Users can set the system account password etc.



The screenshot displays the 'Account management' section of the SpacesGate interface. On the left is a dark sidebar with navigation options: Media I/O, Video, Storage, Upload, Conference, System, and Account. The main content area is titled 'Account management' and contains two user management sections. The first section, 'Administrator', has a blue mouse cursor over the user name. It includes input fields for 'Username' (containing 'admin'), 'New password', and 'Confirm password', followed by a green 'Apply' button. The second section, 'Video Manager', also has a blue mouse cursor over the user name and includes input fields for 'Username' (containing 'video'), 'New password', and 'Confirm password', followed by a green 'Apply' button.

Changing username and password with Administration / Video Manager :

- (1) New User: Enter a user login name that you want.
- (2) New Password: Enter the user login password that you want.
- (3) Confirm Password: Requires you to enter your password again for confirmation.
- (4) Click Apply.

Chapter 2 Intuitive Graphical User Interface

In this chapter, we will introduce how the SG-1 operates on the screen after the front USB port is connected to the mouse or projector.

2.1 Preview

This section briefly introduces the names of the various function buttons, and the functions will be introduced in the next section.



	Group Change
	Minimum
	Maximum
	Pen Off
	Pen On
	Eraser
	Undo
	Clear
	Pen Settings
	Snapshot

	Previous Page
	Next Page
	Video Switch
	Conference
	Hang Up
	Collaboration
	Record
	Pause
	Stop
	Playback










	Settings
	Status
	Time Bar

2.2 Toolbar

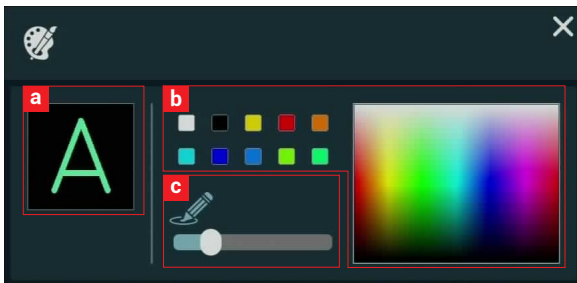
Here will introduce the function of all buttons. We divide the function into many small parts to introduce it for easy reading.

2.2.1 Group Change and Annotation

This section contains Group Change and Annotation.

Name	Function	Description
 Group Change	Change order of function button	Order see 2.1 Preview
 Minimum	Minimize	-
 Maximum	Maximize toolbar	-
 Pen Off	Annotation off	Hide all the annotations
 Pen On	Annotation on	show all existing annotations
 Eraser	Erase the part where Eraser move over	-
 Undo	Restore cleared annotations	-
 Clear all	Clear annotation on display	-
 Pen Settings	Change color of Pen and change size of Pen & Eraser	(The dialog will be introduced below.)





■ Pen Settings



- Preview the color and width of the pen.
- Change the color of the pen.
- Change the width of the pen(eraser).

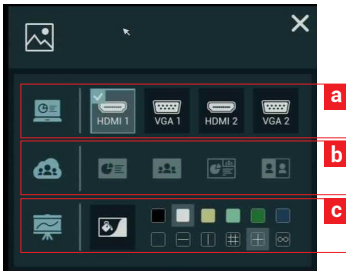
2.2.2 Video Switch and Conference

This section contains Video Switch and Conference.

Name	Function	Description
 Video Switch	Switch the SG-1 display sources	(The dialog will be introduced below.)
 Conference	Connect to other device	(The dialog will be introduced below.)
 Hang Up	Disconnect the conferencing	(The dialog will be introduced below.)
 Collaboration	Collaboration enable/disable	While Collaboration is enable, the icon become yellow.

2.2.2.1 Video switch

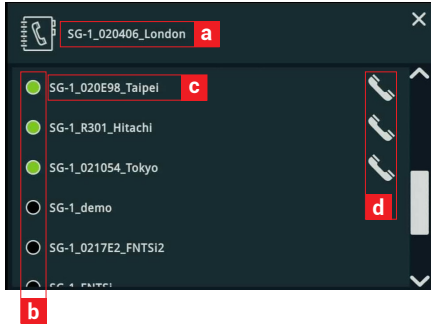
- Switch the SG-1 display sources.



Item	Name	Function	Description
a	Content	Select one of the assigned local content sources on display	Select assigned input (HDMI 1 , VGA1,HDMI 2 , VGA2)
b	Conference	Select one layout of the remote sources on display	Totally 4 layouts for selection <ul style="list-style-type: none"> • Full screen: Remote Content/Remote Camera • Picture-in-picture:Remote Content big + Remote Camera small • Side-by-side: Local Camera + Remote Camera
c	Whiteboard	Select whiteboard type on display	Six types and six colors

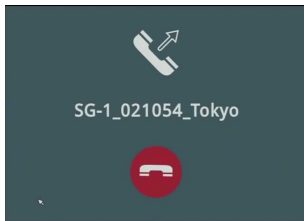
2.2.2.2 Conference

■ Conference contact list

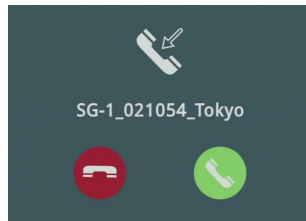


- Show Contact list:
- a. Show local device description.
 - b. Green: ready for call
Black: device not available
Red: Busy
 - c. Show each contact device description,click here to call.
 - d. The device can be connected.

- Call out: Stop button(red) in call out dialog.
- Call in: Accept(green) or Refuse(red) buttons in call in dialog.



Call out




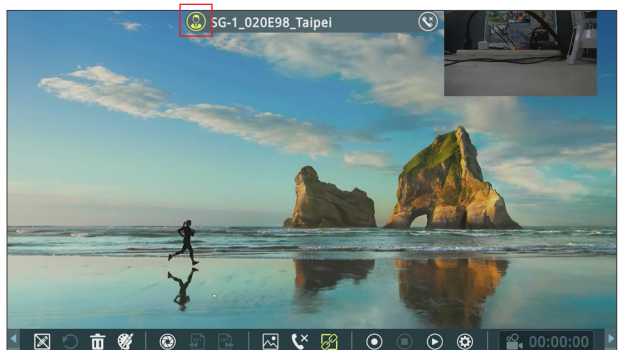
Call in

SG-1_021054_Tokyo










When the connection is successful, the above picture will appear at the top of the screen. This picture contains the description of the connection device and the hang out button.

 The button will appear when switch to local content , and when the button is clicked, the remote camera appears in the upper right corner of the screen.



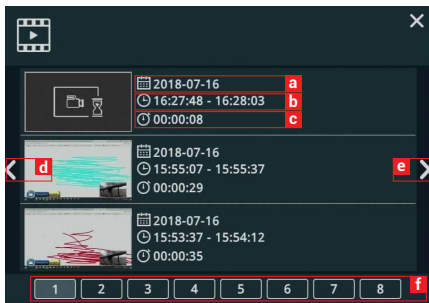
2.2.3 Playback and Record and Setting

This section contains Playback and Record and Setting.

Name	Function	Description
 Record	Record video	Click to start recording
 Pause	Video pause	Click to keep recording
 Stop	Stop recording	-
 Playback	Play video	(The dialog will be introduced below.)
 Settings	Device Information/Camera/Layout	(The dialog will be introduced below.)
 Status	Representing the current state	Status change to red while recording
 00:00:00 Time bar	Show current recording time	Time bar change to red while recording

2.2.3.1 Playback

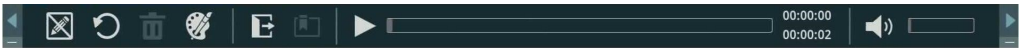
■ Video list Dialog



Show all videos saved in hard drive,three videos in one page.

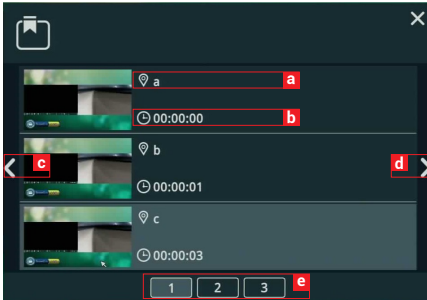
- a.Date of video
- b.Start-End time of video
- c.Total time of video
- d.File list page up
- e.File list page down
- f.Video list pages,click to jump to different video list page.

■ Playback mode functions



Name	Function	Description
Group Change	Change order of function button	-
Minimum	Minimize	-
Maximum	Maximize toolbar	-
Pen Off	Annotation off	Hide all the annotations
Pen On	Annotation on	show all existing annotations
Eraser	Erase the part where Eraser move over	-
Undo	Restore cleared annotations	-
Clear all	Clear all the annotation on playback mode	-
Pen Settings	Pen color/width	Refer to Pen settings of 2.2.1
Exit	Exit the playback mode	-
Bookmark	Bookmark of video	(The dialog will be introduced below.)
Play/Pause	Play/Pause video	<ul style="list-style-type: none"> • Playback video • While the video is playing, click to pause and click again to resume
Time bar	Show playback progress in bar	Click any point on the bar will jump to correspondent time
00:00:00 Time 00:00:02 Information	Total recording time & current playback time	-
Audio On/Off	Mute or resume playback audio	-
Volume bar	Show playback volume level	Click any point on the bar will adjust to correspondent volume level

■ Bookmark



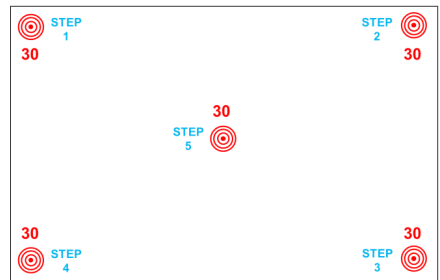
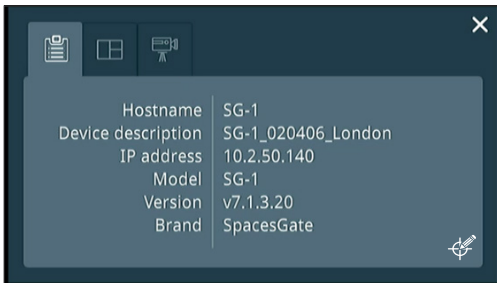
Show all Bookmark list attached with this playback video,three Bookmark item in one page.

- a. Bookmark Title
- b. Time Point
- c. Bookmark list page up
- d. Bookmark list page down
- e. Bookmark list pages,click to jump to different video list page.

2.2.3.2 Settings

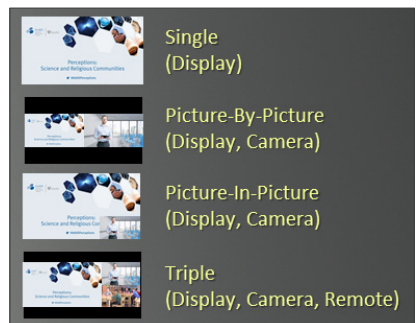
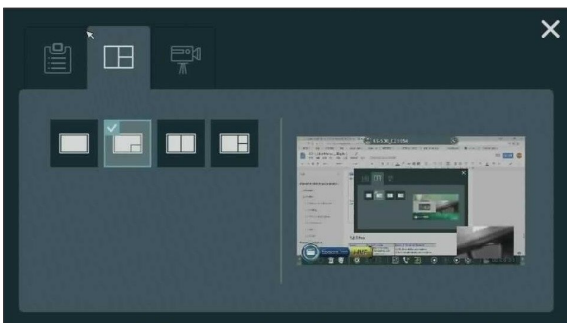
1. Information

- a. Show device information:Hostname/ Device description/ IP address/ Model/ Version/ Brand
- b. Projector calibration: Some of the iFPD need to be calibrated before use. Using mouse control to click icon to start calibration. First appears the Touch Module list, select one and the calibration page will show. Using pen or finger to click on the center of the dot one by one. Totally 5 dots and each dot remain 30 seconds for time out.



2. Layout

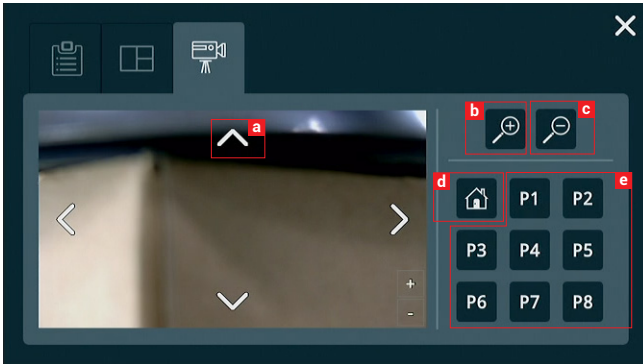
Click to select recording layout, totally 4 types for selection.



Type	Source	Conference On	Conference Off
Single	Display*	Content/ Conference/ Whiteboard	Content/ Whiteboard
PBP or PIP	Display*	Content/ Conference/ Whiteboard	Content/ Whiteboard
	Camera	Local Camera	Local Camera
Triple	Display*	Content, Conference, Whiteboard	Content/ Whiteboard
	Camera	Local Camera	Local Camera
	Remote	Remote Camera	Remote Camera

* Display Source : reference to [2.2.2.1 Video switch](#)




3. Camera



Camera Control:

- a. Up/ Down/ Left/ Right
- b. Zoom In
- c. Zoom Out
- d. Home
- e. Preset : 1~8

2.2.4 Others

Name	Function
 Snapshot	Screen shot of the display. When not recording, the picture will be placed in the snapshot folder of the hard drive or flash drive, but will not appear in the Video Manger. When recording, the picture will be placed in the data set of the video (see 3.4 NO.6), and when the snapshot is taken, the bookmark will be automatically added.
 PPT page up	Control PPT slide page up
 PPT page down	Control PPT slide page down

(PPT Bookmark app connected, please reference 4.1 PPT Bookmark application)


2.3 Mini Controller (mobile phone)

Mini Controller

Username

Password

Log in



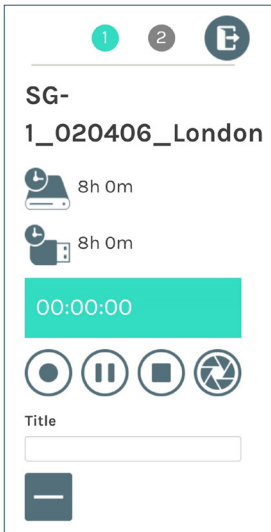
Connect mobile device to SG-1, user can make it easier to control the SG-1 with the mobile device. User can quickly record or switch screens by using the mobile device.

Login : First open the browser, and input IP address in the browser page, log in Mini Controller from the initial login page with default username admin and password admin.

2.3.1 Page1

On the top ,show the page1, page2 and exit button.

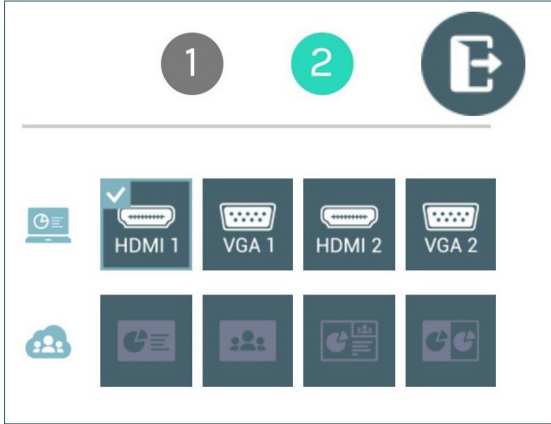
In page1, show the device description, storage space and recording button.





Name	Function
Page 1	Click to jump to page 1
Page 2	Click to jump to page 2
Exit	Exit the Mini Controller
Device description	Show the device description
Storage space	Show the storage space
Front USB	Show the storage space
00:00:00 Record time	User can know from here how long they have been recording
Record	Click to start recording
Pause	Click to pause recording
Stop	Click to stop recording
Snapshot	Screenshot of the display
Title	Enter title of video
Minimum	Minimize toolbar

2.3.2 Page2


Switch the SG-1 display sources.



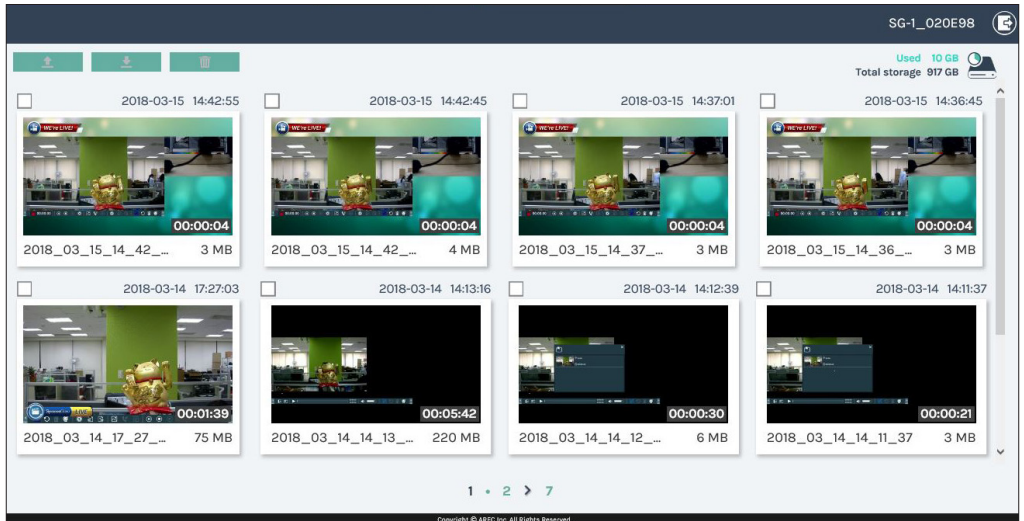
Name	Function	Description
 Content	Select one of the assigned local content sources on display	Select assigned input (HDMI 1 ,HDMI 2,VGA 1,VGA 2)
 Conference	Select one layout of the remote sources on display	Totally 4 layouts for selection <ul style="list-style-type: none"> • Full screen: Remote Content/Remote Camera • Picture-in-picture:Remote Content big + Remote Camera small • Side-by-side: Local Camera + Remote Camera

Chapter 3 Video Manager


The SG-1 embedded Video Manager provides access to recordings produced by SG-1 itself and stored in the internal -storage drive or USB. The video list is in descending order by the time of occurrence.

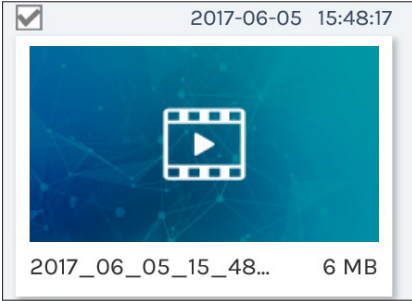
Entering the Video Manager webpage via [Administrator] by clicking the  button and opening a new tab; or log in Video Manager from the initial login page with default username video and password video.





The Video Manager includes the following features:upload, download, delete, playback the recording and edit the recording information.




3.1 Upload the recording

Select the desired recording and click  to add it in the upload queue. The upload destination is pre-configured by system administrator. See [Administrator\ Upload](#) for more details. The SG-1 arranges the upload sequence automatically and indicates the upload status/result on the corresponding recordings. The following indicators are used:



Icon	Upload Status
	The recording package are uploaded successfully.
	The recording upload is failed.
	The recording is in the upload queue.
	The recording is uploading at this moment.

3.2 Download the recording


Select the desired recording and click . Select Save if offered the choice to Open or to Save the package. The recording packages are downloaded to your computer in the form of a .mp4 file. These are typically saved to the default download location used by your browser.

The recording package may contain more than one .mp4 files if that is recorded in MP4 Mixed video mode.

To separately download the files in the recording packages, click on the recording thumbnail and access those in the Content information page.

3.3 Delete the recording

Recording packages can be deleted manually to make room for new recordings.

Select the recording and click . A confirmation dialog box opens asking you to confirm the deletion. Click Confirm to permanently remove the recording packages. The list may not update immediately. Refresh the list by reloading this webpage.

3.4 Playback the recording

Click on the desired recording and you will be directed to the content information page. Use the player controls at the bottom of the window to watch the video.

The title used for Mixed video is "Movie". To download MP4 Mixed video file, select the desired file and click Download. The file size being download is shown within the button.

The screenshot shows the 'Content information' page. At the top left, there is a back arrow and the text 'Content information'. Below this, the video title 'Movie' is displayed. To the right of the title, the recording date and time '2018-03-14 17:27:03' are shown. On the right side, there are two tabs: 'Content' (selected) and 'Bookmark'. Below the tabs is a form with several input fields: Title, Organization, Department, Event's Date, Semester, Topic, Level, and Audience. At the bottom of the page, there is a large green 'Download' button with a downward arrow icon and the text 'Download'. A smaller 'Apply' button is also visible on the right side of the page.

1. Title of the video file being played
2. Recording date and time
3. Edit the content fields
4. Playback window
5. Playback controls
6. Video file and data set (files containing metadata, thumbnail images, and bookmarks.)
7. Download button

3.5 Edit the recording information

If you require to edit the information of a recording, click on the desired recording and you will be directed to the content information page. Replace the existing text or enter new information in the content fields. Click APPLY to save the changes.

3.6 Edit the bookmark information

If you require to edit the bookmark of a recording, click on the desired recording and you will be directed to the Bookmark page.

Thumbnail	Title	Time	Edit	Delete
	Slide 1	00:00:43		
	Embedded Direct Recording System Features	00:00:48		
	Wireless, portable multi-source broadcast video equipment	00:00:53		
	KL-3W suitcase kit	00:00:58		

+ Add bookmark

1. Edit the bookmark title.

Edit bookmark

Time : 00:00:43

Title :

Cancel **Apply**

2. Delete the bookmark

3. Add new bookmark with title.

Add bookmark

Time : 00:01:39



Title :

Cancel **Apply**

Chapter 4 Applications

This chapter is mainly about introducing some additional applications.

4.1 PPT Bookmark application

This section will explain how to use PPT Bookmark application, when the program is connected to SG-1, the PPT page up button  and PPT page down button  of SG-1 can be used.

PPT Bookmarking software Installation and use at the PC end:

Installation steps:

1. Click the execution file "PPT_Bookmarker_Setup.exe"
2. Select installation language.

After the installation is complete, user can see the following main buttons.

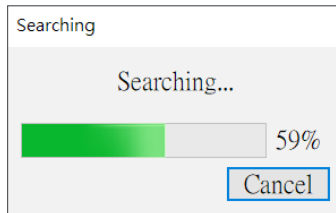
-  : Click Green button  to setup.
-  : Click Red button  to exit the software.
-  : Click blue button  to use the software.

Execution steps:

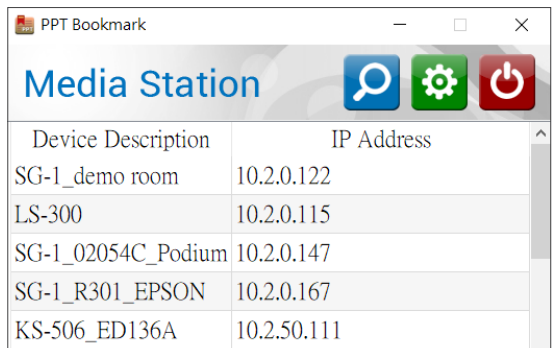
1. Click PPT Bookmark, Click Search button in blue.



2. Click Cancel in Searching... dialog box to abort installation.

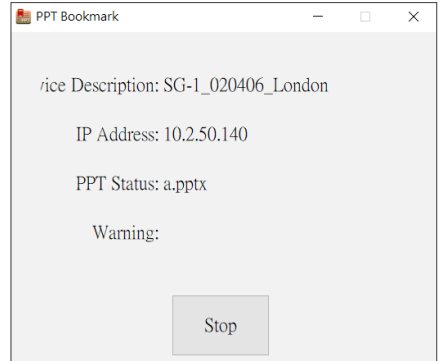


3. Click on the device to be connected
 Note: Keep your PC and the SG-1 in the same domain.

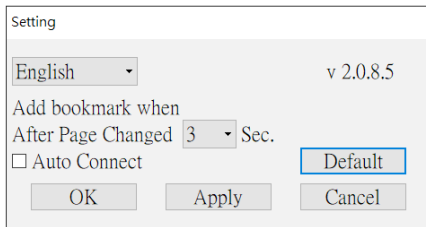


4. Open the PPT file to be presented, name of it displays in PPT status page of your software.

Note: This software supports Microsoft PowerPoint 2007, 2010,2013, and 2016.



settings:



Setup page:

1. Language:You may select language
2. Bookmark delay time:You may change delay time for auto bookmark generation in this page.
3. Auto Connection:Click Auto Connection and the next time press the search button when you open it,it will connect directly to the device.
4. Default:Restore to initial settings.
5. OK:Click OK to change the settings and close the dialog directly.
6. Apply:Click Apply to change the settings
7. Cancel:Click Cancel to cancel the settings and close the dialog directly.

Table of On Screen Display Icons

The SG-1 provides a HDMI preview output for recording monitoring. On screen display there are event icons and sometimes the error operation warnings.



Disk full



Network connection failure



Display failure



Audio output mute



Front USB recording error



Operation is denied



Front USB recording



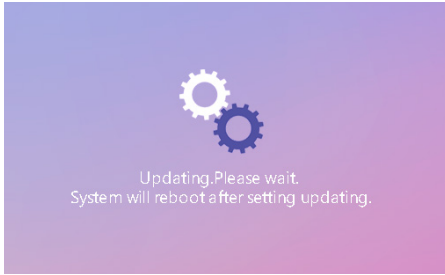
Disk failure



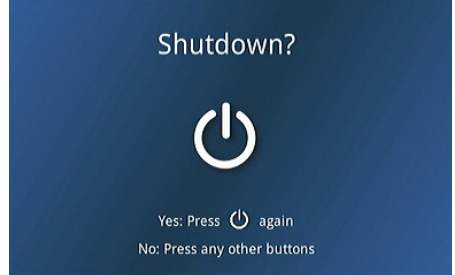
Uploading



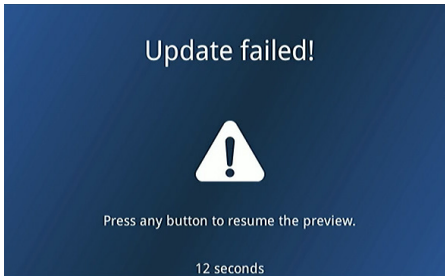
Front USB drive mount



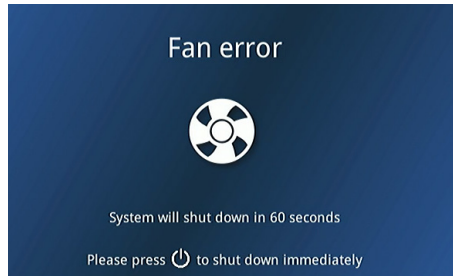
Firmware updating



Shutdown confirmation



Firmware update failure



Fan failure

SpacesGate

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