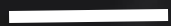


Quicklink Studio Solution Manager Guide



Rev1.3

Table of Contents

An Introduction.....	2
Key for Quicklink Manager	3
Create a Company and Administrator Account.....	4
Quicklink Portal Functions.....	5
Registering your Studio Server Software	8
Server Software Configuration.....	8
Room Management.....	10
Contributor/User Settings Chrome User Settings (PC, Mac, Android or iOS).....	13
Studio-in-a-Box Control using the Quicklink Manager Portal.....	14
Troubleshooting	19
Test A Network.....	19

An Introduction

Broadcasters are recognising that they need to do things differently to sustain or build a competitive advantage. The way in which content is provided to the Studio has changed over the years with the introduction of smartphones and tablets. This has altered the way in which consumers demand to watch live content and has driven the need for broadcasters to deliver more content.

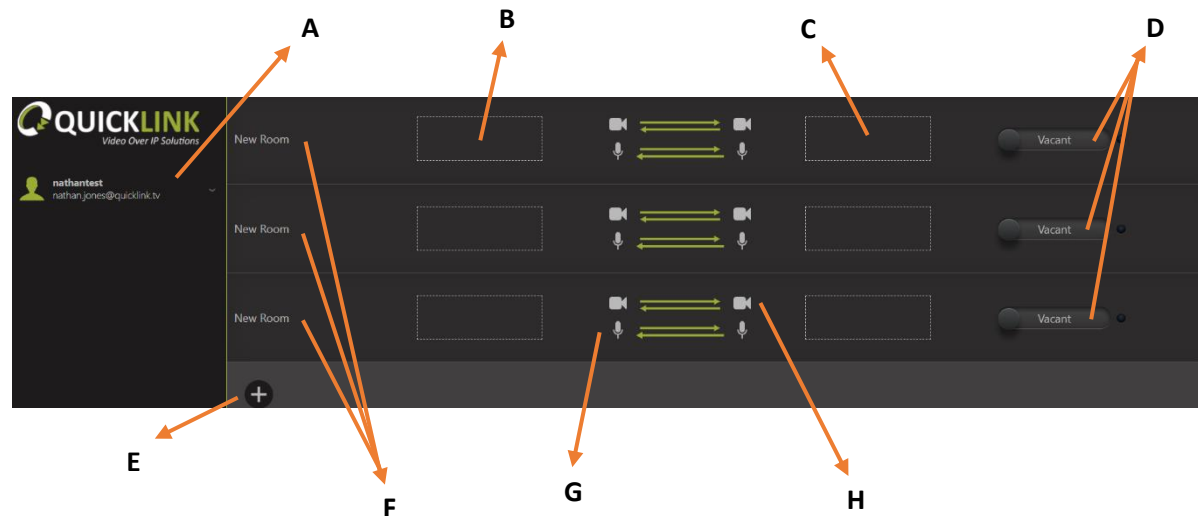
Quicklink are continuing to introduce solutions to suit the ever-changing broadcast requirements. The new and exciting Studio Solution is a bi-directional calling solution, in real time, full duplex audio that can provide instant resources that can be used in various locations.

Content can be obtained using a Chrome browser, iOS or Android device allowing users to send or receive content to or from the studio remotely and easily using any device where a web browser is available.

The Quicklink Manager Portal is available to use from any web browser. This will allow complete management of all servers and remote users. It has various layers of operational security to ensure the highest levels of data security and integrity.

The Studio-in-a-box is ideal for full remote controllable HD studio productions. Connecting to Quicklink's globally optimised low latency infrastructure, the Studio-in-a-box delivers bi-directional video/audio between the contributor and broadcaster. This can be fully managed and controlled from the Quicklink Manager Portal.

Key for Quicklink Manager



Definitions

Room: This is a channel of communication for bi directional audio and video or audio only. These can be renamed, and additional rooms added

Servers: Quicklink Hardware Studio Servers can be used to both send or receive and can be classed as a user or server

A – A list of all contributors/Users

B and **C** - Drag your users and Servers to make the connection

D – These tabs will display vacant until Users/Servers are placed in the room. This will change to waiting once these are inserted

E – This will allow you to add more rooms

F – Rooms for each bidirectional call

G and **H** – This allows the Manager to disable/enable audio and video in either direction












Create a Company and Administrator Account

Navigate to the Quicklink Manager (quicklink.network) and click Register.

Register

Enter your company and administrator details. Ensure that you enter the number of an SMS enabled device to receive the verification SMS message.

Click **Verify User** and an SMS message will be sent to the telephone number provided. Once received, enter the verification code and click **OK**.

Company details:	Administrator details:
Company name 	Username 
 +44 Telephone number 	Full name 
Email 	Email 
Postcode 	Password 
	Confirm password 
Show password: 	

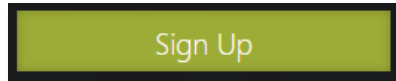
Verification

Please enter your verification code:

OK

A prompt will confirm that the entered number has been verified. Click **OK**.

Finally, click **Sign Up** to complete the registration.



Quicklink Portal Functions

From the Manager Portal, click on your created administrator account in the left



My Account will allow you to alter any administrator credentials, enable or disable two factor authentication or change your password.

Manage Accounts will display a list of created Users, Managers and Operators. Clicking on each one will enable you to change their credentials, alter their privileges, disable/enable user or delete the user.

Add Account will allow you to complete the required fields and create accounts. Please see below for layers of operational titles and controls. When a user, Manager or Operator is added, they will be emailed their login credentials.

Account Titles and Privileges

Administrator is created when a new company account is created – This account cannot be deleted unless you contact Quicklink Support

Administrators: Can add 'Managers, Operators and users' and connect calls and see logs

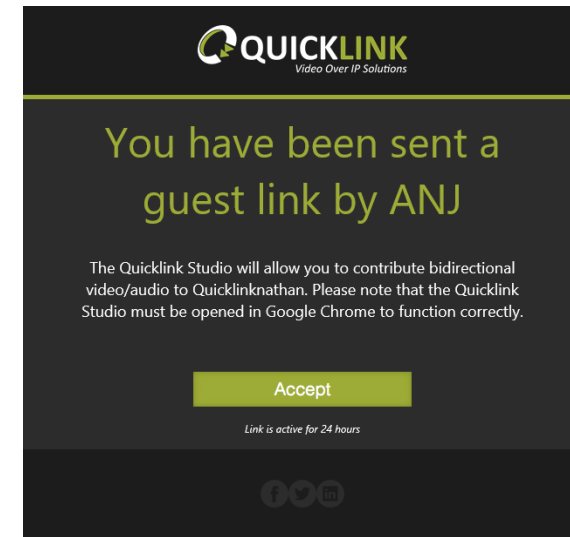
Manager: Has the same privileges as the Administrator but these accounts can be deleted and amended to operators or users

Operator: Operators can only make room connections

User: Can be put into calls for contributions and register studio server software

Invite a Guest

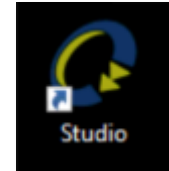
Invite Guest will allow you to enter the email address or mobile phone number of a guest you wish to use as a contributor/User. You can choose the time validity for each user .When the invite is sent, the user will receive an email or sms message containing a link.



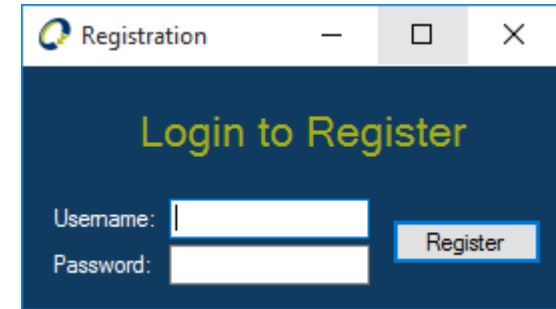
View logs will allow you to see a summary of all calls carried out with your portal system. This information can be Exported to a CSV document using the **Export** button.

Registering your Studio Server Software

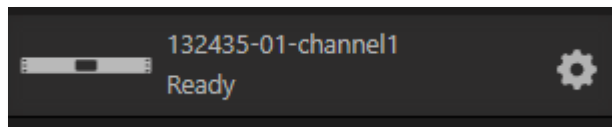
Launch the Studio Server software application using the desktop shortcut




Enter your previously created User credentials into the server application when prompted.




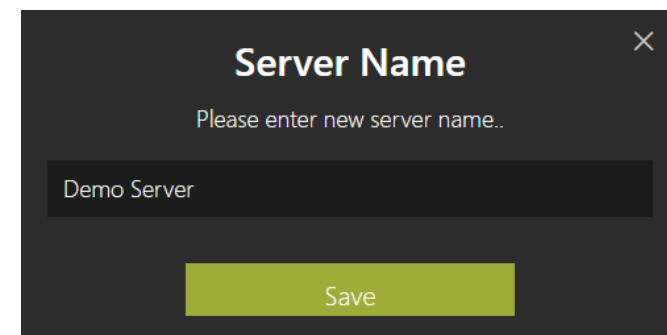
The server will then become an available device in the Quicklink Manager Portal.



Server Software Configuration

Click the cog  icon next to the newly available server.

The **Server Name** can be changed by clicking the Pen icon.  Enter the preferred server name and click **Save**.



Video Input: Select the input device for return video (video sent to remote callers). Options such as Decklink, NDI Receiver, Webcam and Transport Stream are available (hardware dependent).

Video Format: Select the format of the return video feed. Auto Detect is default.

Internal Audio: Selection to choose audio from video, or from external device.

External Audio: Select the audio device for the return feed if "External Device" was selected above.

Output: Video output device. Options such as Decklink, Audio Only and NDI Render are available (hardware dependant).

Output Format: Select the required output format.

Input Type: SDI or HDMI (hardware dependent).

Bandwidth: Limit bandwidth usage if required (256kbps-10Mbps).

Adaptive Resizing: Enable this to allow the video to resize to a smaller width & height if the available network bandwidth drops (configurable for both Studio server and Studio-in-a-Box).

Pres the **Save** button to save any changes.

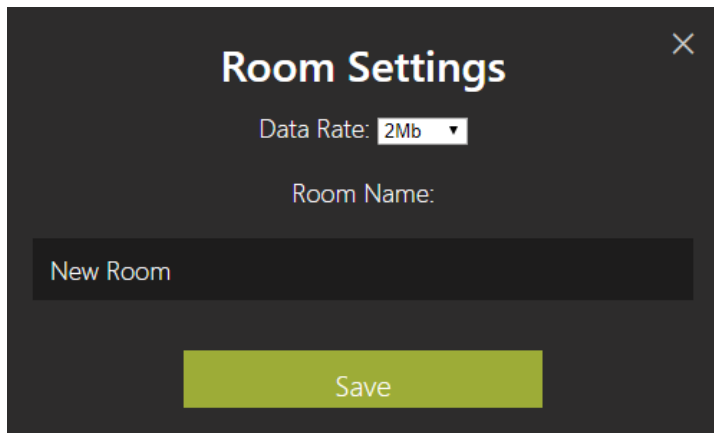
Room Management

The room system is the method used to connect two devices together to start an audio/video bidirectional call. Generally, a Studio Server will always be present in a room.

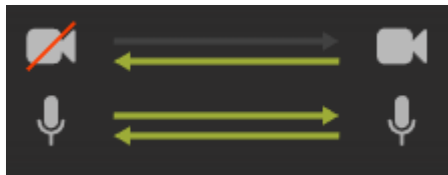
Create a room by pressing the plus icon. 

A room can be deleted by hovering over the room with your mouse pointer and clicking the X icon. 

To edit the name of a room, click the pencil icon, enter the desired room and click **Save**. 



The maximum data rate is defaulted to 2 Mbps to ensure stability of streams. The maximum data rate for each individual room can be adjusted from 128 kbps up to 30 Mbps depending on your knowledge of available internet bandwidth and your requirement for bandwidth allocation to each user.



The icons in the centre of the room allow the manager to disable/enable audio and video in either direction. For example, this would be useful if you wish to send only audio to the Studio server from a guest. Click the Camera and Microphone icons to enable and disable as required.

Drag an available client or server from the available device list into the dashed area of a room




To remove a device from a room, drag it onto the trash icon and click **Confirm**.

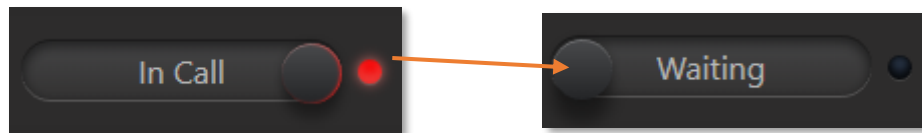


When two devices are present in a room, the room status will change from **Vacant** to **Waiting**. Click the slider to start a call between the two devices and the room status will change to **In Call**.



When two devices are placed into a room, a padlock icon will appear next to the room name allowing you to lock the room. To lock the room click the  icon. When locked, the link automatically re-connects if the network connection is lost. The link will automatically be established as the room location is remembered.

Click the slider to end the call.



Warnings



A yellow warning icon will appear if there is a poor network connection of more than 2% packet loss over 20 seconds. This warning appears on devices running Chrome browser or iOS.




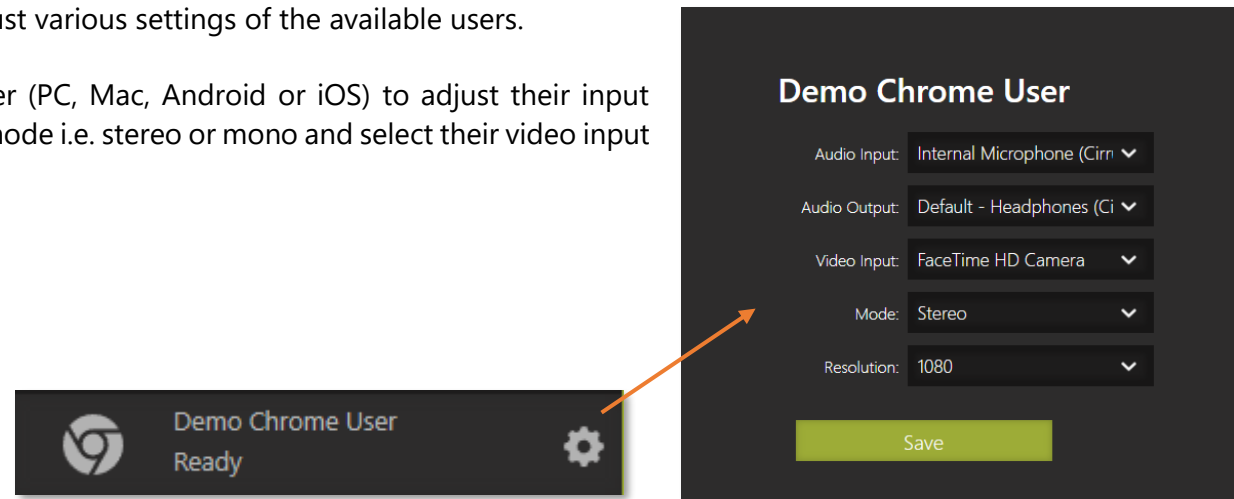
A red error icon will appear if the contributor is disconnected. This will only show for the contributor. If a contributor loses connection, the device will disappear from the Quicklink Manager.

Contributor/User Settings

Chrome or Safari Browser settings (PC, Mac, Android or iOS)

From the Quicklink Manager Portal, you can adjust various settings of the available users.

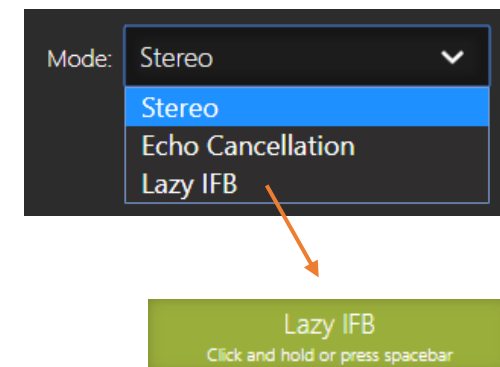
Click the settings cog  on a Chrome user (PC, Mac, Android or iOS) to adjust their input audio/video device, output audio device, audio mode i.e. stereo or mono and select their video input resolution.



When using a chrome browser on a laptop, there are 3 audio modes available

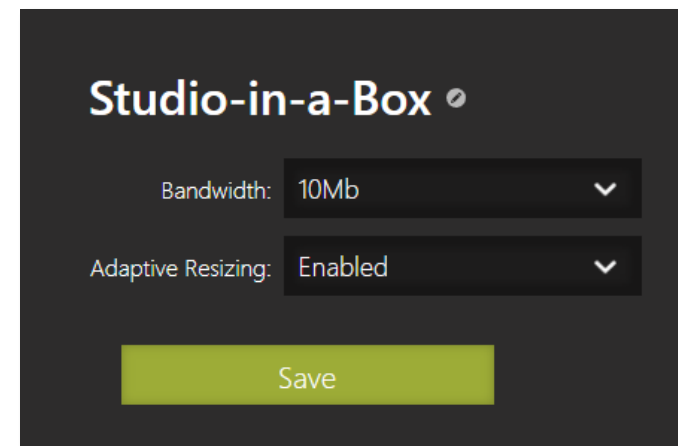
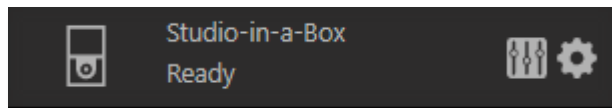
- **Stereo:** uses both channels 1 and 2
- **Echo Cancellation:** uses 1 channel with echo cancellation
- **Lazy IFB:** uses channel 1 or uses channel 2 when IFB is activated

If Lazy IFB is selected, a green button will appear on the contributor's screen. When this button is held or the space bar is pressed, the contributor is able to communicate with the operator of the Quicklink Manager using channel 2.




Studio-in-a-box settings

The settings cog on a Studio-in-a-box within the Quicklink Manager Portal will allow you to enable or disable adaptive resizing options.



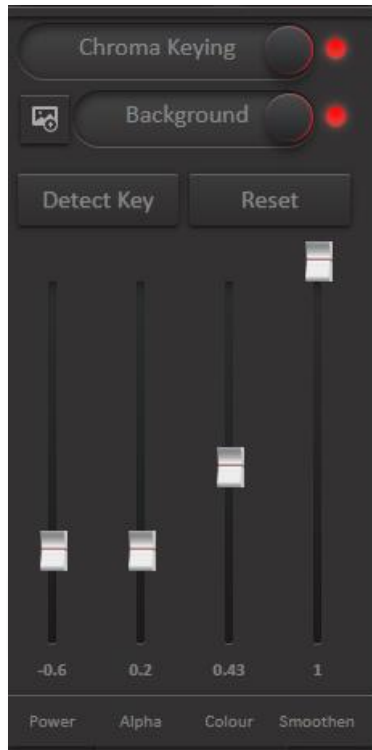
Studio-in-a-Box Control using the Quicklink Manager

Press the mixer icon next to the available Studio Box device within the Quicklink Manager Portal.  This will open the studio control panel which contains a large array of available controls which can be altered during a call in real time.



The camera orientation slider will allow you to adjust the camera install position. Useful if using a Studio Box 1U with external camera.

Enable Camera's built in bars and tone feature for testing.



The **Chroma Keying** button will open the GUI.

Use the **Chroma Keying** toggle to enable or disable Chroma Keying.

Click the upload image icon to select an image or video to be used as the Chroma Key background. The background can be enabled or disabled using the toggle switch.

The **Detect Key** button will apply default Chroma settings which can then be adjusted using the available sliders.

Press the **Reset** button to return everything to default settings.

The **Int. Light** button displays the slider for control over the inbuilt Studio-in-a-box lights.

Change the sensitivity of the PTZ Camera Controls (Slow/Fast).





Camera Pan and Zoom Controls.

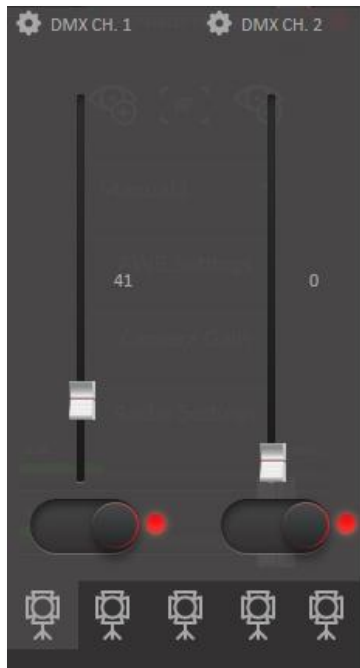
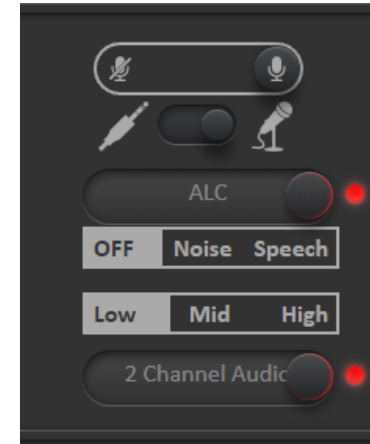
The Scene selection dropdown will allow you to select a preconfigured Scene saved to the PTZ camera. Alterations made to the camera will be saved to a scene if one is selected.

Click the AWB settings button to open the White Balancing GUI. Here the white balance profile can be selected, and the Display AWB button can be used to automatically configure this if AWB A or B options are selected. If the display mode slider is enabled, the White Balance status will display on the camera output when a white balancing adjustment is made.



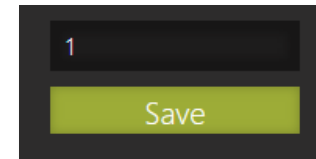
Click the camera gain button to display the GUI for this. Using the slider, the gain can be increased or decreased and turned on or off using the switch.

The audio settings GUI allows the microphone to be muted, audio switched between Line-In or powered Mic, ALC enabled/disabled, equalizer adjustments, input volume level selection and switch between one or two channel audio input. The audio input levels can also be adjusted using the slider bars.

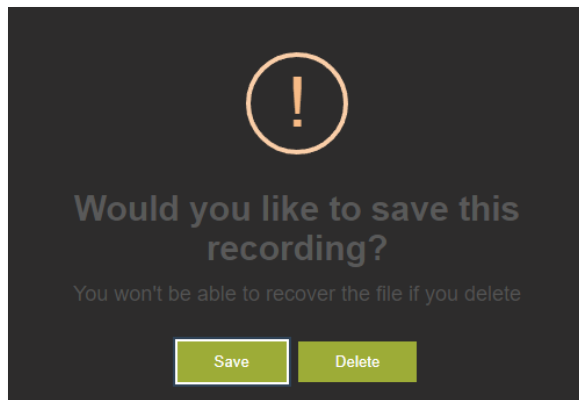
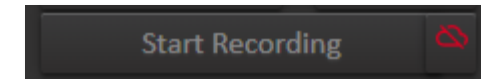


At the bottom of the Control Panel are the DMX light controls. Here the DMX channels can be configured for control over light brightness and temperature.

Click the setting cog icon to input the required DMX channel.



Click the **start recording** button to begin saving the Studio-in-a-Box input to the unit. When recording has finished, select either **Save** or **Delete** on the prompt as required.



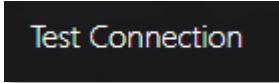
Use the toggle switch to **enable** or **disable** recorded clip upload.

Troubleshooting

Test a network

Load a Chrome browser and navigate to the Quicklink Manager (www.quicklink.network)

Use the **Test Connection** link.



In this instance, will be connecting with the Manager Portal, so we are only concerned that a connection with Quicklink's Communication server is possible at this point. If the network test fails, refer to the **Quicklink Network Information** pdf.

If signing in as a Chrome Contributor or guest, it is important that the network test here is passed for optimal performance.

Click the **More Information** button to display a PDF which outlines the network requirements.

Quicklink Communication Server test results:

```
Pinged Quicklink Communication Server with latency 12ms
Pinged Quicklink Communication Server with latency 12ms
Pinged Quicklink Communication Server with latency 10ms
Pinged Quicklink Communication Server with latency 11ms
Pinged Quicklink Communication Server with latency 10ms
Pass: Connected to Quicklink Communication Server
```