

Quick Start Guide

Content

1. Introduction	3
2. Prerequisites	4
3. SessionLinkPRO Recording	5
3.1 The user interface (HOST)	5
3.1.1 Audio / MIDI Devices	5
3.1.2 Audio Levels	6
3.1.3 Send Channel Setup	6
3.1.4 Send Channel Bitrate	7
3.1.5 Client Invitation	7
3.1.6 Available Connections	7
3.1.7 Connection	8
3.2 The user interface (GUEST)	8
3.2.1 Audio / MIDI Devices	9
3.2.2 Audio Levels	10
3.2.3 Send Channel Setup	10
3.2.4 Send Channel Bitrate	10
3.2.5 Expert Mode	11
3.2.6 Connection	11
3.2.7 Welcome to SessionLinkPRO	11
3.3 Audio and MIDI Routing	11
3.3.1 Voice a session	11
3.3.2 Record a session	12
4. SessionLinkPRO Video	13
4.1 The user interface (HOST)	13
4.1.1 Local Video	13
4.1.2 Session Control	14
4.1.3 Remote Video	14
4.2 The user interface (GUEST)	15
4.2.1 Local Video	15
4.2.2 Remote Video	16
5. SessionLinkPRO Conferencing	17
5.1 The user interface (HOST)	17
5.1.1 Conference Setup	17
5.1.2 Conference Main Window	19

5.2 The user interface (GUEST)	22
5.2.1 Conference Setup	22
5.2.2 Conference Main Window	23
6. SessionLinkPRO Dubbing	25
6.1 The user interface (HOST)	25
6.1.1 Audio / MIDI Devices	25
6.1.2 Audio Levels	26
6.1.3 Channel Setup: Studio	26
6.1.4 Channel Setup: Actor	26
6.1.5 Session Control	26
6.1.6 MTC / Video Matrix	27
6.1.7 Video Devices	27
6.1.8 Available Connections	27
6.1.9 Connection	28
6.2 The user interface (GUEST)	29
6.2.1 Welcome to SessionLinkPRO	30
6.2.2 Audio / MIDI Devices	30
6.2.3 Audio Levels	31
6.2.4 Connection	32
6.2.5 Video	32
6.3 Remote controlled recording and on-screen recording light	33
6.3.1 Setup for the studio	33
6.3.2 Setup for the actor	34
7. SessionLinkPRO Podcasting	35
7.1 The user interface (HOST)	35
7.1.1 Recorder	35
7.1.2 Files	36
7.1.3 Connection > YOU	37
7.1.4 Connection > GUEST	38
7.2 The user interface (GUEST)	39
8. Appendix	43
8.1 Dual mono mode explained	43
8.2 Audio routing examples	43
8.2.1 Setup with 1 audio interface	43
8.2.2 Setup with 2 audio interfaces	44
8.2.3 Setup with virtual drivers (macOS only)	44
8.2.4 Setup with Source-Nexus Pro (macOS only)	44
8.3 MIDI routing examples	45
8.3.1 Setup with virtual MIDI drivers	45
8.3.2 Setup with a MIDI interface (or the MIDI ports of an audio interface)	45

8.4 Video routing examples	45
8.4.1 A graphics card as video source	46
8.4.2 A video I/O interface as video source	46

1. Introduction

SessionLinkPRO | Recording is a professional far end recording solution for recording studios, voice over artists, multimedia producers, broadcasting stations and anyone else who needs bi-directional audio connections in real time and studio quality.

OPUS audio encoding with mono and stereo mode and bitrates of up to 510 kbit/s and the PCM L16 mode in mono guarantee audio transmission in studio quality - at a fraction of the costs of ISDN transmissions. With dual mono mode, even connections with two remote participants are possible. MIDI transmission allows syncing a remote DAW via MIDI timecode (MTC).

With the free add-on SessionLinkPRO | Video, the production video or a regular webcam signal may be streamed to the remote computer.

SessionLinkPRO | Conferencing provides a platform for high quality audio/video conferences. Use it to enable your client to attend and direct recording sessions from virtually everywhere.

SessionLinkPRO | Dubbing is tailored to fit workflows in dubbing sessions. It offers higher level security features, multiple guests with signal separation, built-in video and MTC transmission along with an option for remote controlled recording at the far end and 48kHz 24bits BWF wav support with timecode metadata.

A major benefit of SessionLinkPRO is that only the host of a recording session needs to have an user account. When a session is started, a guest will be invited to join the session via the "session link", which can be created from the main page. The link contains all necessary information to connect to the session host.

SessionLinkPRO works with full duplex peer-to-peer audio streams over a broadband internet connection. Using latest webRTC routines and NAT traversal technology on Google Chrome and other Chromium based browsers, there usually is no need to configure anything else but your audio device. Firewalls and port forwarding won't bother you anymore.

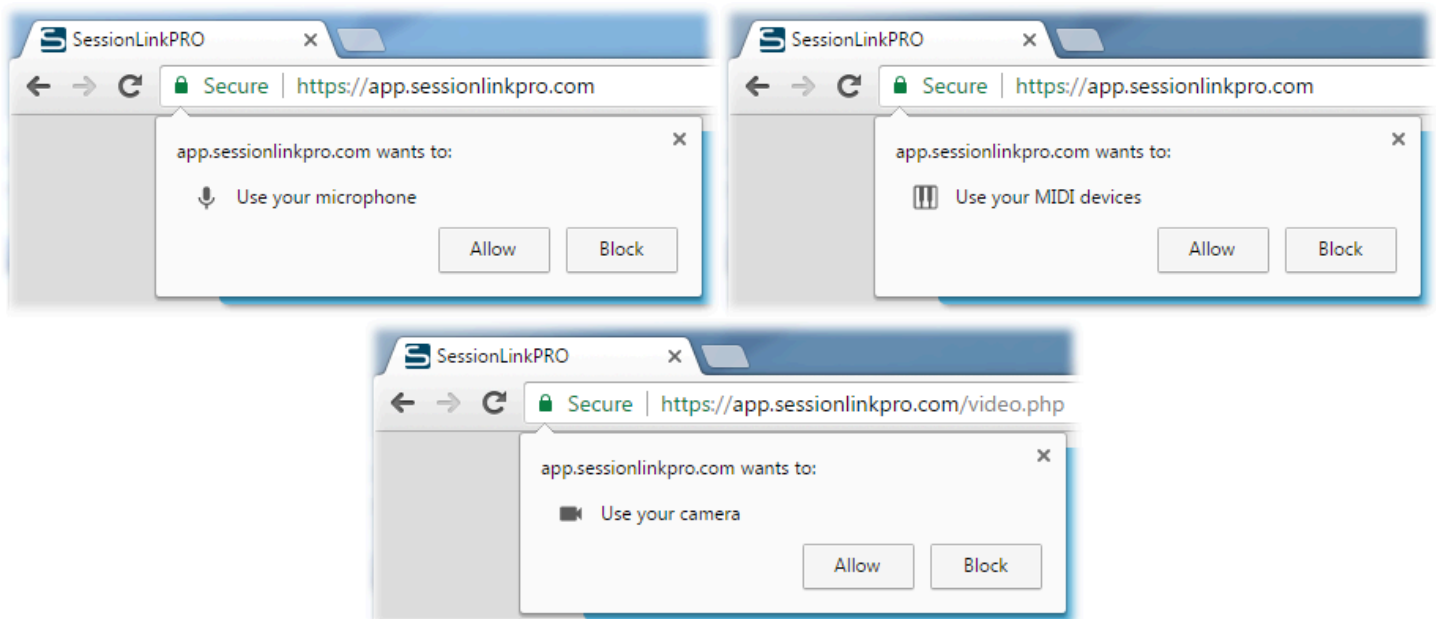
2. Prerequisites

- Google Chrome or other Chromium based browser with Chromium version 49 or above.
- Audio interface or USB microphone
- Headphones or a speaker system
- Video capture device (for SessionLinkPRO | Video, optionally for SessionLinkPRO | Conferencing)
- a reliable broadband internet connection

IMPORTANT

Chrome needs to have access to your audio, video and MIDI hardware. When you start SessionLinkPRO for the first time, Chrome will ask you to allow access to your hardware (see below).

It is mandatory to allow access.

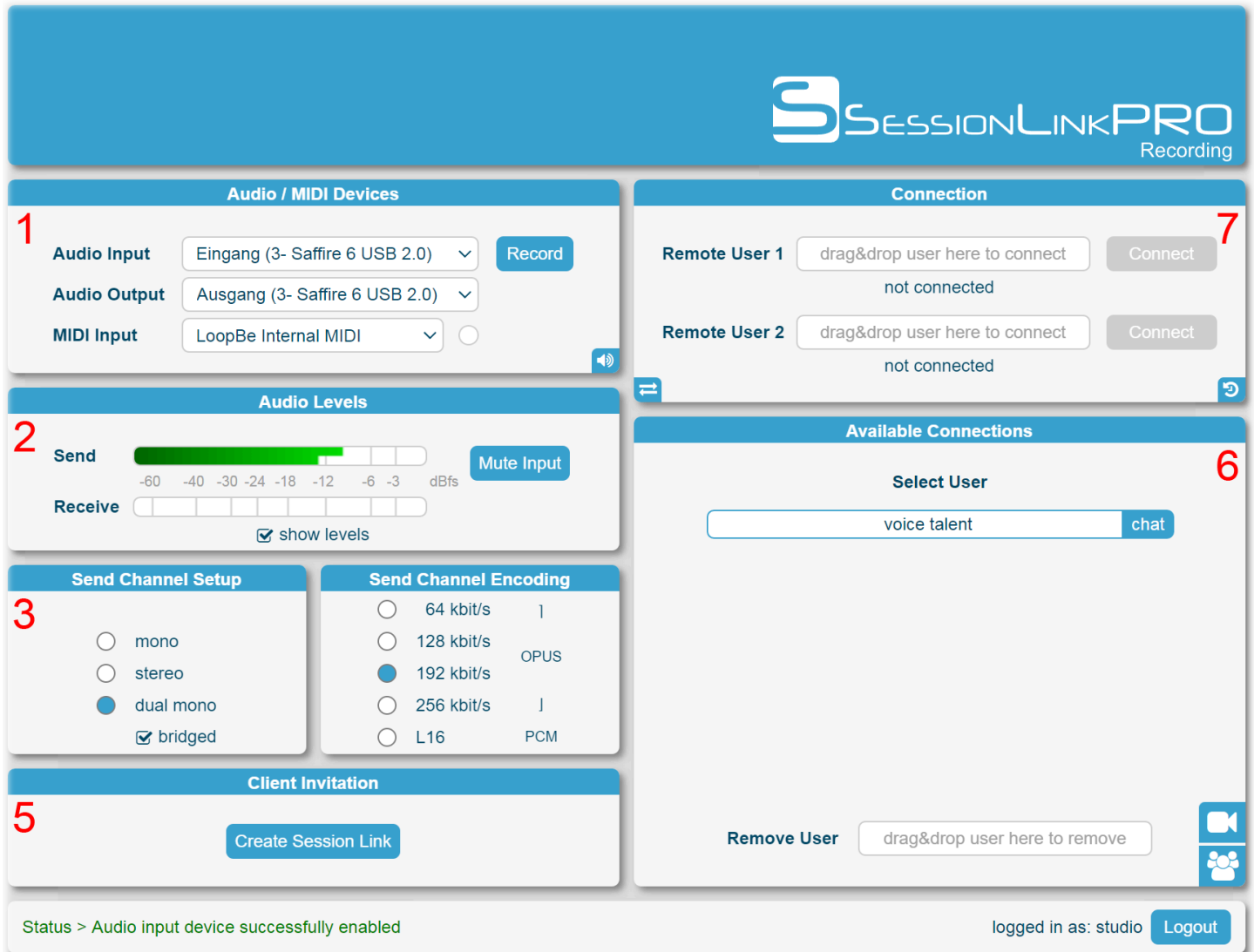


3. SessionLinkPRO | Recording

This chapter covers SessionLinkPRO | Recording.

3.1 The user interface (HOST)

After login, you'll see the main window of the user interface:



3.1.1 Audio / MIDI Devices (1)

In this section, you can set up your audio and MIDI hardware.

“Audio Input”: select the desired audio interface's input or microphone. The signal picked up by the audio input will be transmitted to the guest.

“Audio Output”: select the desired audio interface's output or your headphone, active monitors etc. The signal from the guest will be routed through this output.

“MIDI input”: select an optional MIDI input if you want to transmit MIDI signals to the far end, e.g MTC to sync a remote DAW.

“Record” button: record directly in SessionLinkPRO | Recording. Choose signal source, channels and name your recording. When the recording is started, PCM data will be stored to disk in 30s chunks. The complete file becomes available as soon as the recording is stopped. In case of a system crash, you should be able to recover your recording through the button in the lower right corner (doctor’s case icon).



Audio test loop: the small speaker button (lower right corner) activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

3.1.2 Audio Levels (2)

This section has two stereo level meters, a clipping indicator and a "Mute Input" button.

"Send" meter: it displays the level of your audio input (the signal, which will be transmitted to the guest).

"Receive" meter: the level of the incoming signal is displayed here.

An additional clipping indicator warns if local or remote audio signals exceed the maximum level.

"Mute Input" button: with this button, you are able to mute or unmute the outgoing signal.

3.1.3 Send Channel Setup (3)

Setup channel mode for the **outgoing** signal. This can either be mono, stereo or dual mono. With dual mono, two guests can be connected simultaneously (see chapter 7.1 for further explanations on dual mono).

3.1.4 Send Channel Bitrate (4)

Select the desired encoding and audio bitrate for the **outgoing** signal. For mono and dual mono, you can choose between 64, 128, 192 and 256 kbit/s OPUS or PCM L16. Stereo offers 128, 256, 320 and 510 kbit/s OPUS. Recommended settings for the OPUS codec are 192 kbit/s mono / dual mono or 320 kbit/s stereo.

3.1.5 Client Invitation (5)

To invite a guest to join the recording session, you need to generate a session link. A click on "Create Session Link" opens an additional menu.

Here, you can pre-set channel mode and bitrate for the **incoming** signal (i.e. the signal received from the guest).

The session link will automatically be generated. Send the link to your guest via the built-in email function or copy the link and paste it to your favorite email client.

Use the address book function to store frequently used email addresses: a click on "@" opens the address book. The address book holds up to 150 entries.

3.1.6 Available Connections (6)

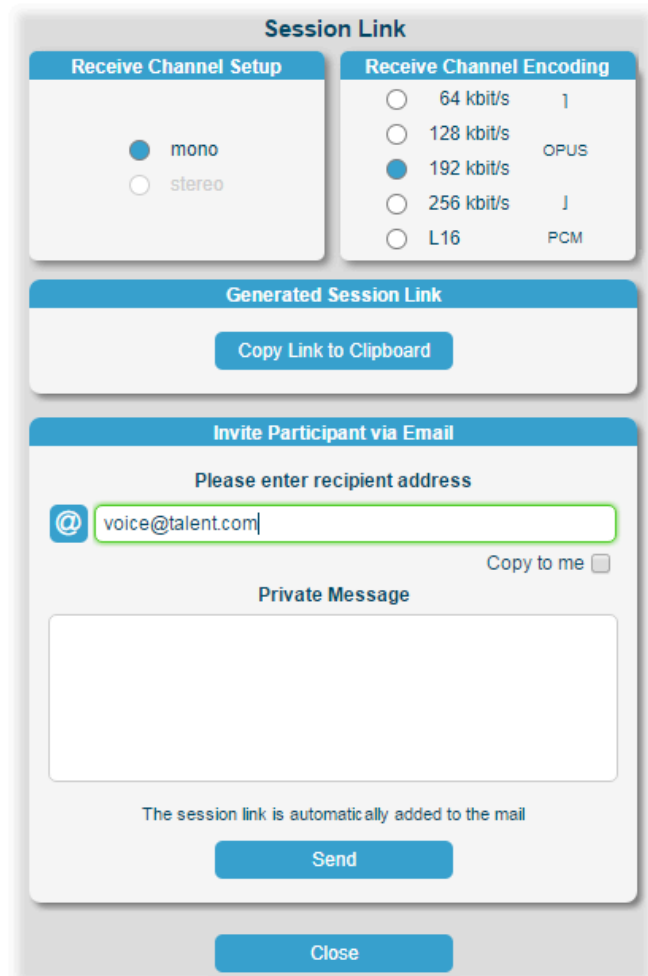
This section is the "waiting room" for your guests.

When a guest opens the session link, an entry will appear in the queue. The queue holds up to 8 entries. Each entry has a "chat" button, which allows you to open a chat with the corresponding guest. The chat button turns red when a new message is available.

To start a connection with one of the guests, just drag and drop the corresponding entry to a "Remote User" field in the "Connection" section above and click "Connect" (see 3.1.7).

To remove a user from the queue, just drag and drop the corresponding entry to the "Remove User" field at the bottom of this section.

The lower right corner contains two buttons that can be used to launch SessionLinkPRO | Video (camera icon) and SessionLinkPRO | Conferencing (group icon). An automatic login takes place in a new browser tab. SessionLinkPRO | Conferencing will be connected to SessionLinkPRO | Recording via one of the two "Remote User" channels and therefore extends it.



Side note: in order to be able to use SessionLinkPRO | Conferencing, an active SessionLinkPRO | Conferencing booking on the user account is required.

3.1.7 Connection (7)

This sections allows to actually start a connection with a selected guest from the queue (see 3.1.6)

Drag and drop the desired entry from the queue to the "Remote User 1" field. Now the "Connect" button becomes available. A click on this button starts the connection. "ON AIR" will be displayed to confirm the connection was established.

Hovering the mouse pointer over the "ON AIR" message opens a tooltip with connection related data.

If dual mono is selected, you are able to connect two guests simultaneously. Drag and drop one guest to "Remote User 1" and start the connection. The second guest needs to be dropped on "Remote User 2". Then start the second connection.

To stop a connection, just click on "Disconnect".

Side note: instead of dragging and dropping, also double clicking a queue entry moves the corresponding entry to the "Remote User" fields.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

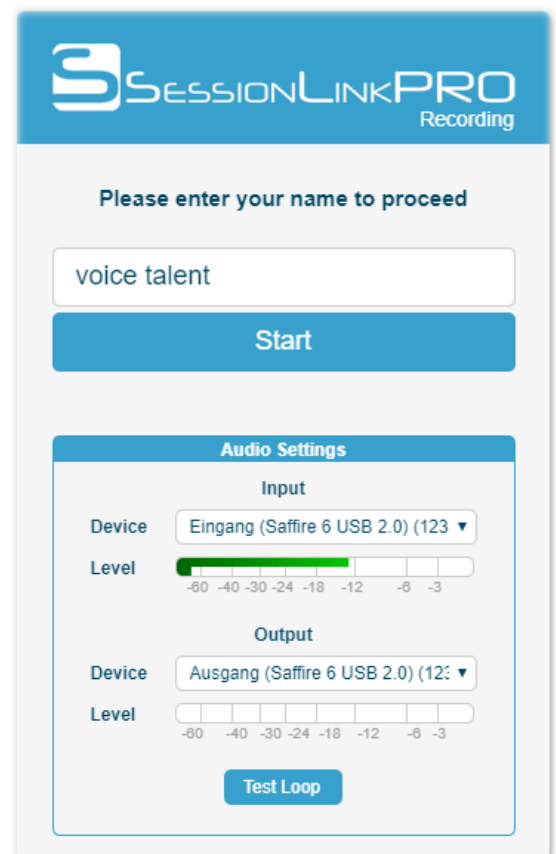
Connection history: By pressing the button in the lower right corner (icon: clock with an arrow counterclockwise) the connection history will be displayed. Due to privacy reasons, the connection history will be deleted after a log out or when closing the browser.

3.2 The user interface (GUEST)

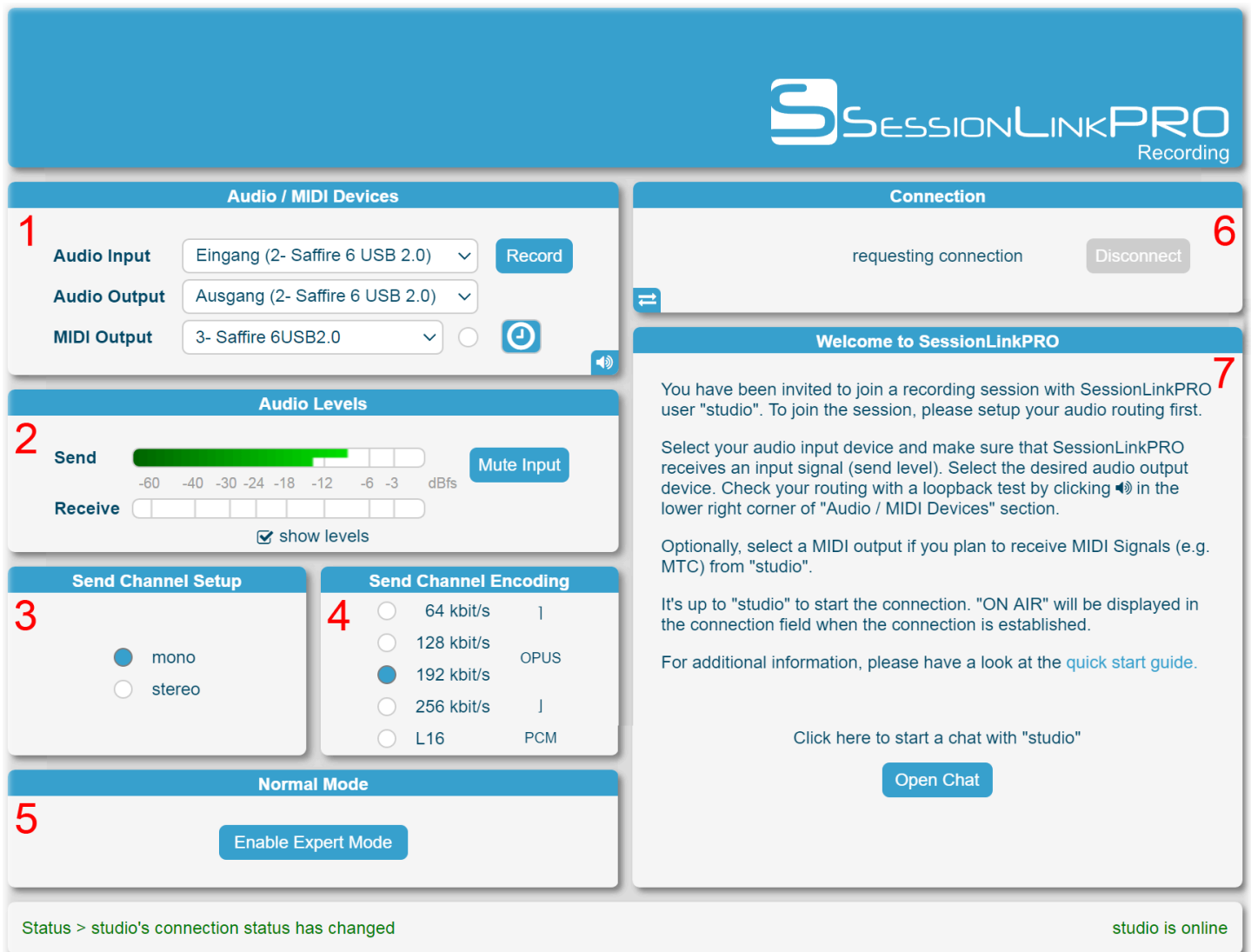
When you open a session link, you will first be asked to enter your name. You may also choose the desired audio input and audio output device.

The button "Test Loop" activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

Please click "Start" to continue.



After a click on "Start" you will now see the main user interface:



3.2.1 Audio / MIDI Devices (1)

In this section, you can set up your audio and MIDI hardware.

“Audio Input”: select the desired audio interface's input or microphone. The signal picked up by the audio input will be transmitted to the host.

“Audio Output”: select the desired audio interface's output or your headphone, active monitors etc. The signal from the host will be routed through this output.

“MIDI output”: select an optional MIDI output device or the internal time code display if you want to receive MIDI signals from the far end, e.g MTC to sync your DAW to the remote DAW.

“Record” button: record directly in SessionLinkPRO | Recording. Choose signal source, channels and name your recording. When the recording is started, PCM data will be stored to disk in 30s chunks. The complete file becomes available as soon as the recording is stopped. In case of a

system crash, you can recover your recording through the button in the lower right corner (doctor's case icon).



Audio test loop: the small speaker button (lower right corner) activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

3.2.2 Audio Levels (2)

This section has two stereo level meters, a clipping indicator and a "Mute Input" button.

"Send" meter: it displays the level of your audio input (the signal, which will be transmitted to the host).

"Receive" meter: the level of the incoming signal is displayed here.

An additional clipping indicator warns if local or remote audio signals exceed the maximum level.

"Mute Input" button: with this button, you are able to mute or unmute the outgoing signal.

3.2.3 Send Channel Setup (3)

Channel mode for the outgoing signal. This can either be mono or stereo.

Usually nothing should be changed here. The session host has pre-set channel setup and bitrate for you. In case you need to change the settings, please refer to chapter "3.2.5 Expert Mode".

3.2.4 Send Channel Bitrate (4)

Encoding and audio bitrate for the **outgoing** signal. For mono, you can choose between 64, 128, 192 and 256 kbit/s OPUS or PCM L16. Stereo offers 128, 256, 320 and 510 kbit/s OPUS. Recommended settings for the OPUS codec are 192 kbit/s mono / dual mono or 320 kbit/s stereo.

Usually nothing should be changed here. The session host has pre-set channel setup and bitrate for you. In case you need to change the settings, please refer to chapter "3.2.5 Expert Mode".

3.2.5 Expert Mode (5)

Send Channel Setup and Bitrate are normally not adjustable, because the session host has pre-set these values. In case you need to change the pre-set values, please click on the "Enable Expert Mode" button. You are now able to change the settings.

If expert mode is disabled again, the settings return to the pre-set values.

3.2.6 Connection (6)

After starting SessionLinkPRO | Recording, the session host will be notified that you are logged in. You are now in a waiting state, which is indicated by a blinking "requesting connection".

It is up to the host to finally establish the connection. "ON AIR" will indicate an active connection.

To stop a connection, please click the "Disconnect" button.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

3.2.7 Welcome to SessionLinkPRO (7)

In addition to a short introduction to SessionLinkPRO | Recording, you can find a chat function in this section.

Click on "Open Chat" to start a chat with the session host. The button turns red, if a new message is available.

3.3 Audio and MIDI Routing

Depending on your role in the recording session, there are different approaches to set up your audio and MIDI routing.

3.3.1 Voice a session

If you are going to voice a session, then you need to make sure that Chrome gets access to your microphone and headphones.

Select your microphone (or the audio interface where your microphone is attached to) as "Audio Input". Select the audio interface where your headphones are attached to as "Audio Output". This way, your microphone signal will be transmitted through SessionLinkPRO | Recording and you should hear the signal from the far end in your headphones.

If your audio interface has a dial for direct monitoring, you should probably set it to 50% to ensure you are able to hear both yourself and the incoming signal.

3.3.2 Record a session

If you want to record the incoming signal, you need to do two things: set up a talkback for communication and route the incoming signal to your DAW for recording. This can be implemented in different ways. For example with a virtual audio driver, a second audio interface, a second computer or – depending on your audio interface – with the internal mixer of the interface.

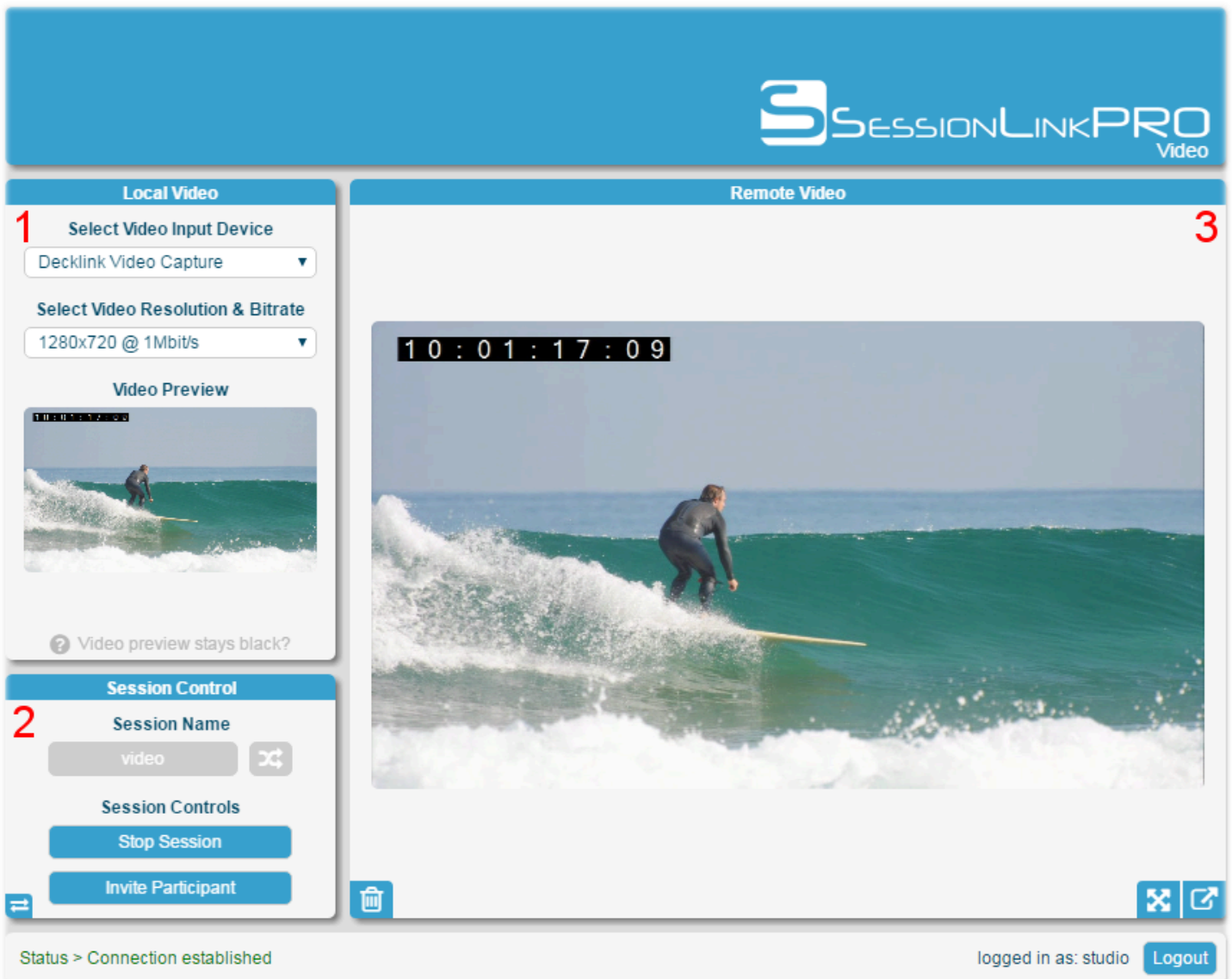
Please see appendix 7.2 for audio routing examples and 7.3 for MIDI routing examples.

4. SessionLinkPRO | Video

This chapter covers SessionLinkPRO | Video.

4.1 The user interface (HOST)

After login, you'll see the main window of the user interface:



4.1.1 Local Video (1)

In this section, you can set up your video capture device (e.g. a capture card, a webcam or the built-in screen capture, see appendix 7.4 for video routing examples), video resolution and transmission bitrate.

“**Select Video Input Device**”: select the desired video input device.

“Select Video Resolution & Bitrate”: choose the desired resolution and bitrate settings.

“Video Preview”: a preview of the local video stream will be displayed here.

Side note for Blackmagic/Decklink capture cards: you need to match resolution and frame rate between the video source and the Blackmagic/Decklink card. Otherwise the preview will stay black. For example, if your DAW outputs a video with 720p50, you have to choose 720p50 for the capture card as well. It might be necessary to set resolution and frame rate with Blackmagic Media Express software which is supplied along with the Blackmagic/Decklink driver.

4.1.2 Session Control (2)

Here you can choose a name for the video session, start and stop the session and invite a guest to join the session.

“Session Name”: choose a name or generate a random name with the button next to this field. You can choose a new name for a new session or use an existing name to join a session that was created earlier. After the session name is entered, “Start Session” and “Invite Participant” buttons become available.

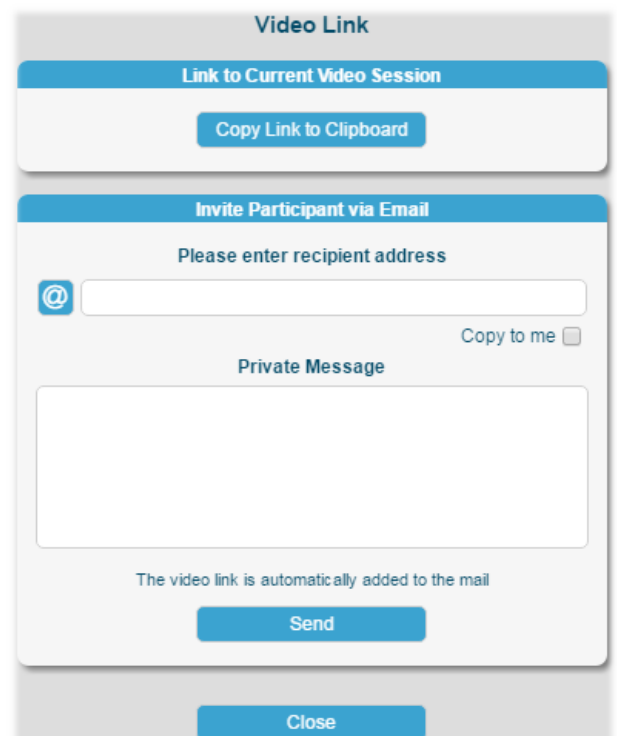
“Start Session”: click here to start the session. SessionLinkPRO | Video is now in waiting state and immediately connects when a guest opens a video link that leads to the active session.

“Invite Participant”: To invite a guest to join the video session, you need to generate a session link. A click on "Invite Participant" opens an additional menu.

The session link will automatically be generated. Send the link to your guest via the built-in email function or copy the link and paste it to your favorite email client.

Use the address book function to store frequently used email addresses: a click on "@" opens the address book. The address book holds up to 150 entries.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.



4.1.3 Remote Video (3)

The guest may optionally answer with a video stream. If a remote video stream is available, it will be displayed here.

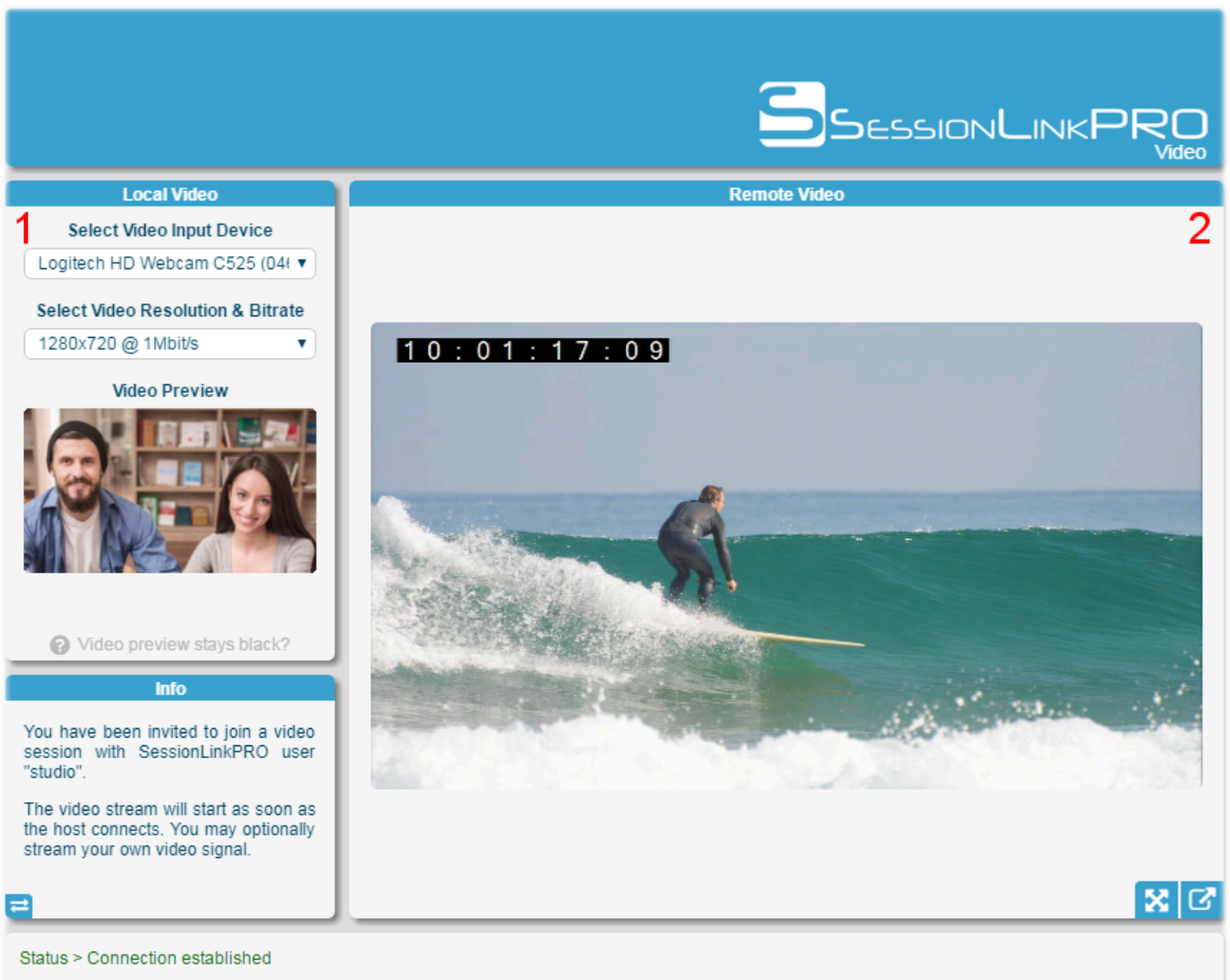
The buttons in the lower right corner allow to display the video in fullscreen mode or in a separate

resizable window.

With the button in the lower left corner, you can force a logout of the guest.

4.2 The user interface (GUEST)

After opening the video session link, you'll see the main window of the user interface:



The connection will be established automatically when the session host starts the session. Sending your own video signal is optional.

4.2.1 Local Video (1)

If you decide to send a video stream, you can set up your video capture device (e.g. a capture card, a webcam or the built-in screen capture, see appendix 7.4 for video routing examples), video resolution

and transmission bitrate in this section.

“Select Video Input Device”: select the desired video input device.

“Select Video Resolution & Bitrate”: choose the desired resolution and bitrate settings.

“Video Preview”: a preview of the local video stream will be displayed here.

Side note for Blackmagic/Decklink capture cards: you need to match resolution and frame rate between the video source and the Blackmagic/Decklink card. Otherwise the preview will stay black. For example, if your DAW outputs a video with 720p50, you have to choose 720p50 for the capture card as well. It might be necessary to set resolution and frame rate with Blackmagic Media Express software which is supplied along with the Blackmagic/Decklink driver.

IPv6 support: The button in the lower left corner of the “Info” field (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

4.2.2 Remote Video (2)

This section holds the remote video received from the session host.

The buttons in the lower right corner allow to display the video in fullscreen mode or in a separate resizable window.

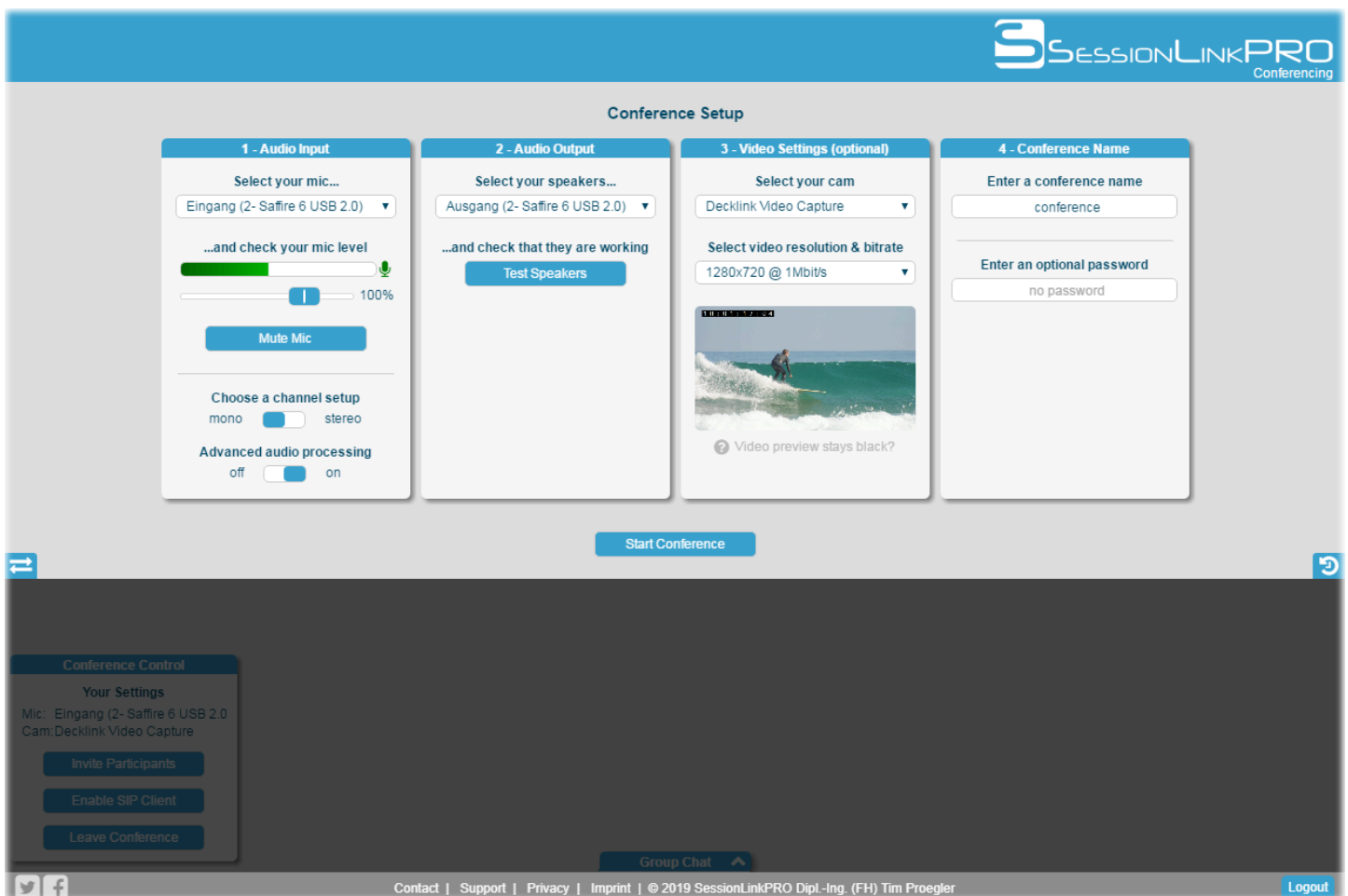
5. SessionLinkPRO | Conferencing

This chapter covers SessionLinkPRO | Conferencing.

5.1 The user interface (HOST)

5.1.1 Conference Setup

After login, you'll see the conference setup window:



The conference setup consists of 4 parts:

1 - Audio Input Select your audio input device. You should see the meter moving. The input level may be adjusted with the fader. “Mute Mic” mutes or unmutes your audio input device.

Choose whether to connect in mono mode (128 kbit/s) or stereo mode (192 kbit/s).

“Advanced audio processing” turns automatic echo cancellation on or off. Advanced audio processing is recommended if the guest is not able to use a

headset for communication.

2 - Audio Output Select your audio output device and test it with the button “Test Speakers”. You should hear a test tone if your interface is set up correctly.

3 - Video Settings Sending a video stream is optional. Select your video capture device (e.g. a capture card, a webcam or the built-in screen capture, see appendix 7.4 for video routing examples) and video resolution/bitrate.

A video preview should appear if the video capture device is successfully initialized.

4 - Conference Name Choose the name for the conference. Enter a new name for a new conference or the name of an existing conference to join again.

Enter an optional password for increased security.

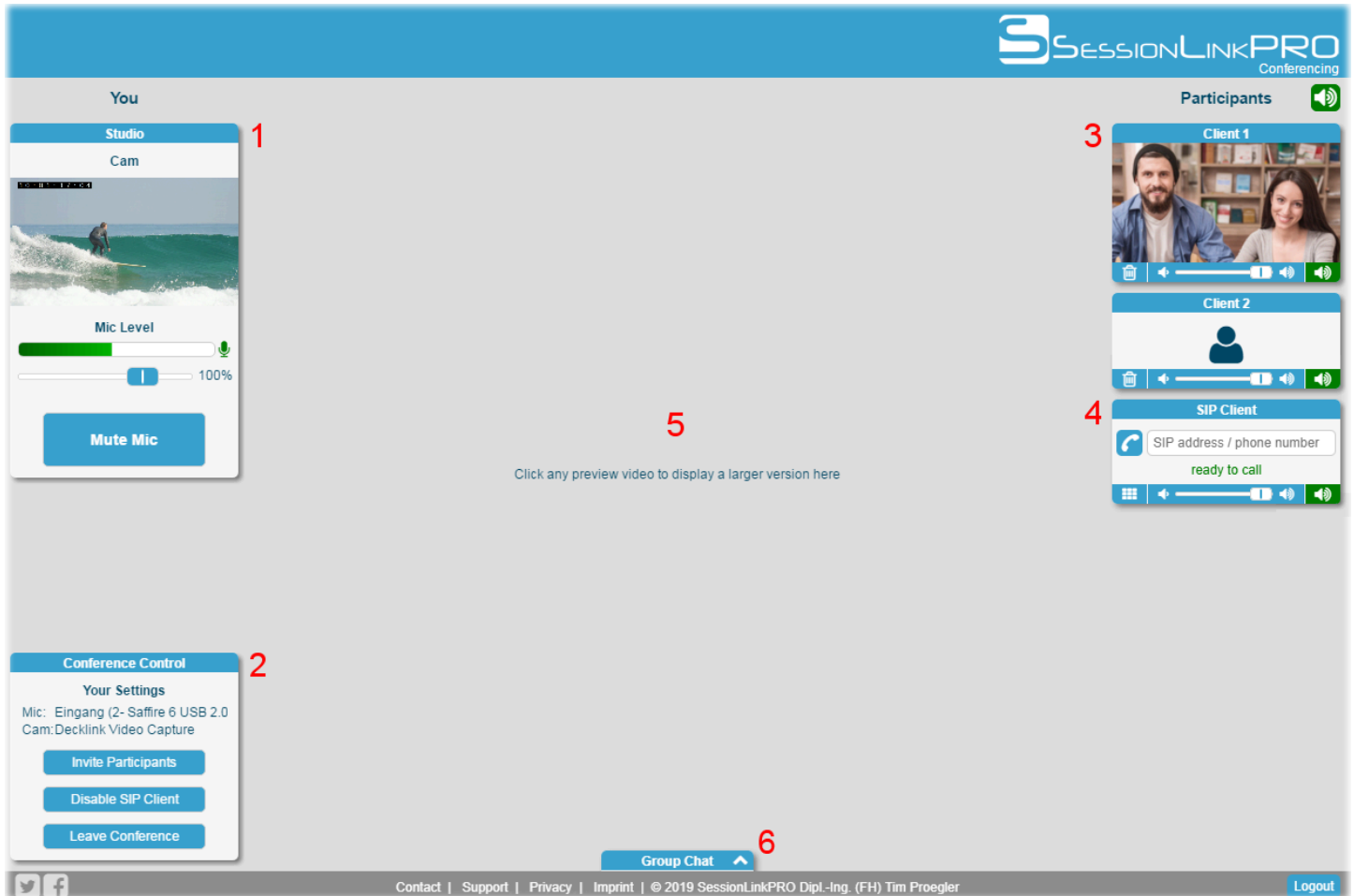
You can now start the conference by clicking the “Start Conference” button. Guests will automatically connect when they complete the setup procedure.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

Connection history: By pressing the button in the lower right corner (icon: clock with an arrow counterclockwise) the connection history will be displayed. Due to privacy reasons, the connection history will be deleted after a log out or when closing the browser.

5.1.2 Conference Main Window

When the conference starts, you will see the main conference window.



The main window consists of 3 areas. On the left, you'll find the local audio/video controls ("You") and the conference controls. On the right, your guests will appear when they join the session. The free space in the middle is used to display a larger video window.

(1) **"You"**: This field holds the local audio/video controls. You can change your audio input volume and mute your signal. When muted, the push-to-talk function becomes available: simply hold the space key to talk and let it go to mute your signal again.

(2) **"Conference Control"**: lets you invite participants, enable the built-in SIP client or leave the conference and shows information about the selected hardware.

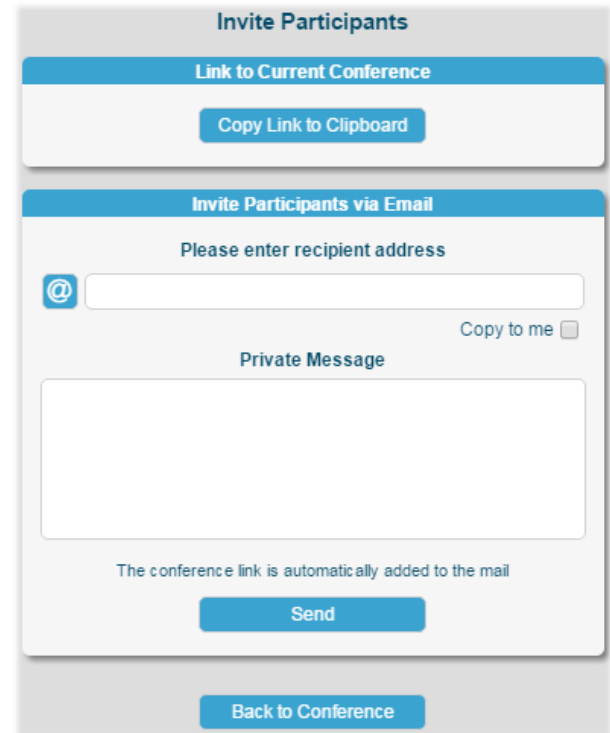
“Invite Participant”: To invite a guest to join the conference, you need to generate a session link. A click on "Invite Participant" opens an additional menu.

The session link will automatically be generated. Send the link to your guest via the built-in email function or copy the link and paste it to your favorite email client.

Use the address book function to store frequently used email addresses: a click on "@" opens the address book. The address book holds up to 150 entries.

“Enable/Disable SIP Client”: Click here to enable or disable the built-in sip client. With the SIP client, you can call conventional phone lines or SIP phones. If the button is greyed out, please set up your SIP account in the account section of our homepage.

Please note that this feature requires a third party SIP account. To call conventional phone lines, the SIP account needs to have PSTN access.

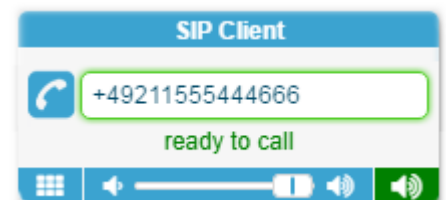


“Leave Conference”: Click here to leave the conference and return to the setup window.

(3) **“Participants”**: Each connected guest will be displayed in a small box. The box contains three controls at the bottom: the button in the left corner (trash can) allows to remotely disconnect a guest, the fader in the middle controls the guest’s playback volume and the button in the right corner (speaker) mutes or unmutes the guest’s audio signal. If the guest transmits a video stream, also a video preview is available. A click on the video preview opens a larger version in the middle of the user interface (5).

Above all connected guests, you can find a “mute all” button. This button mutes or unmutes all incoming audio signals with a single click.

(4) **“SIP Client”**: This is the built-in SIP client. To make use of the SIP client, you need to have a SIP account from a third party SIP provider. To call conventional phone lines, the SIP account needs to have PSTN access.



Please configure the SIP client in the account section of the SessionLinkPRO homepage. After login, navigate to “SessionLinkPRO | Conferencing SIP Settings”. Enter your SIP username, an optional SIP proxy and the SIP Secret (if you don’t know your SIP settings, please ask your SIP provider).

The SIP username should be in the following format: `username@domain.com`

Save the settings and open or reload SessionLinkPRO | Conferencing. You should now be able to activate the SIP client by clicking on “Enable SIP Client” under “Conference Controls”(2).

To place a call, please enter a valid SIP address or a phone number in E.164 format and click the button with the handset icon on the left to start the call. Clicking again will disconnect the call.

A valid SIP address looks like this: `username@domain.com`

A phone number in E.164 format looks like this: `[+][country code][subscriber number including area code]` (e.g. `+49211555444666`)

The button in the lower left corner (icon: dial pad) toggles an additional dial pad. The dial pad allows dialing e.g. pin codes for phone conferences.

(5) This space is reserved for displaying a larger video. A click on one of the preview videos opens a larger version here. Clicking the preview again closes the large video.

A click on the large video in the middle activates full window mode. Click again to leave full window mode.

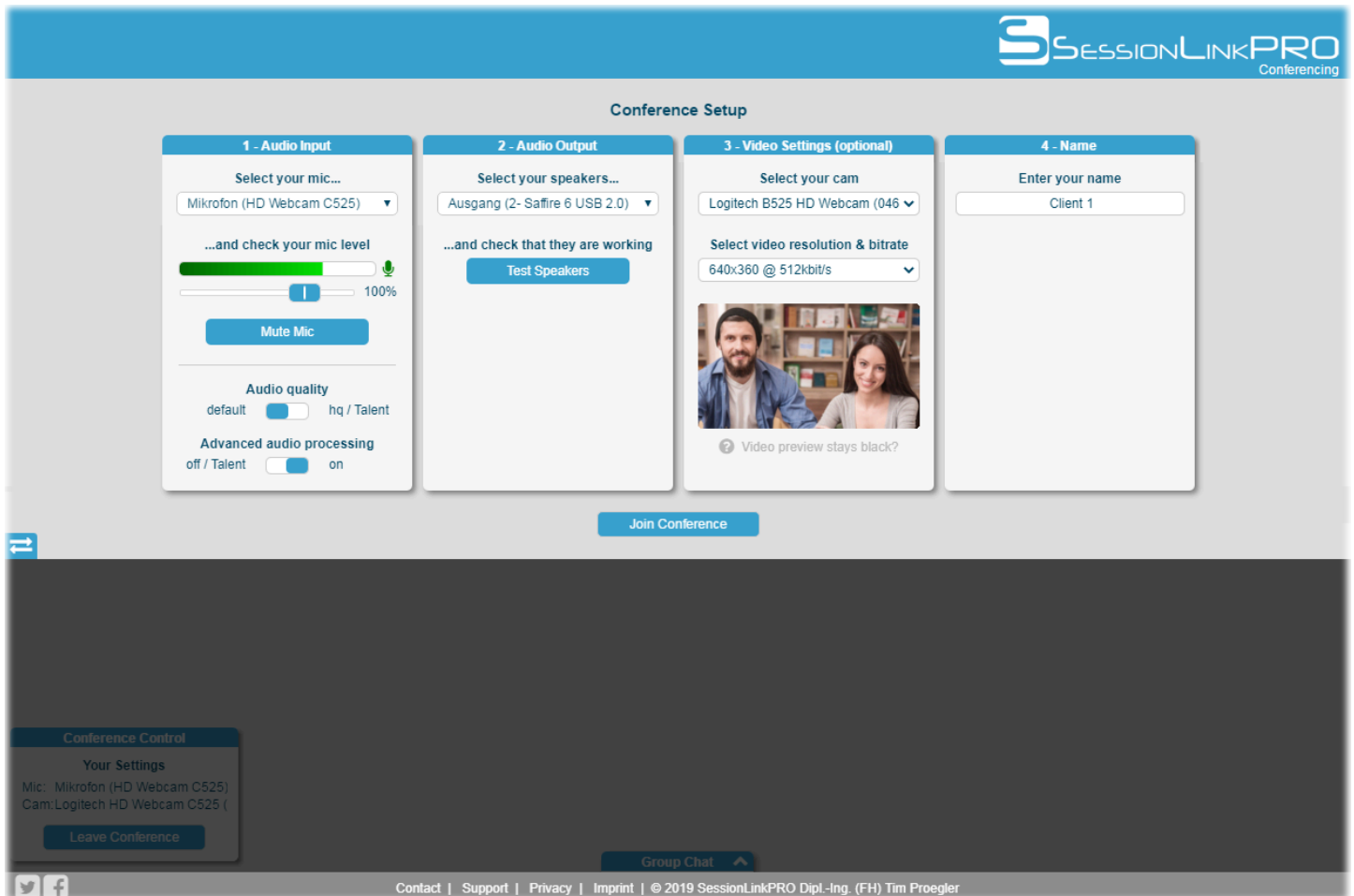
To toggle between full window mode and fullscreen mode, press the F11 key. All control elements will disappear in fullscreen mode.

(6) “**Group Chat**”: This button opens a group chat between all participants of the conference.

5.2 The user interface (GUEST)

5.2.1 Conference Setup

After opening the session link, you'll see the conference setup window:



The conference setup consists of 4 parts:

1 - Audio Input Select your audio input device. You should see the meter moving. The input level may be adjusted with the fader. “Mute Mic” mutes or unmutes your audio input device.

“Audio quality” allows to choose either “default” mode (40 kbit/s mono) or “hq / Talent” mode (192 kbit/s mono)

“Advanced audio processing” turns automatic echo cancellation on or off. Advanced audio processing is recommended to avoid hearing your own voice back through the line. “on” is the default setting. You should keep the default setting unless the session host tells you to change it.

2 - Audio Output Select your audio output device and test it with the button “Test Speakers”. You should hear a test tone if your interface is set up correctly.

3 - Video Settings Sending a video stream is optional. Select your video capture device (e.g. a capture card, a webcam or the built-in screen capture, see appendix 7.4 for video routing examples) and video resolution/bitrate.

A video preview should appear if the video capture device is successfully initialized.

4 - Name You have to enter your name to join the conference.

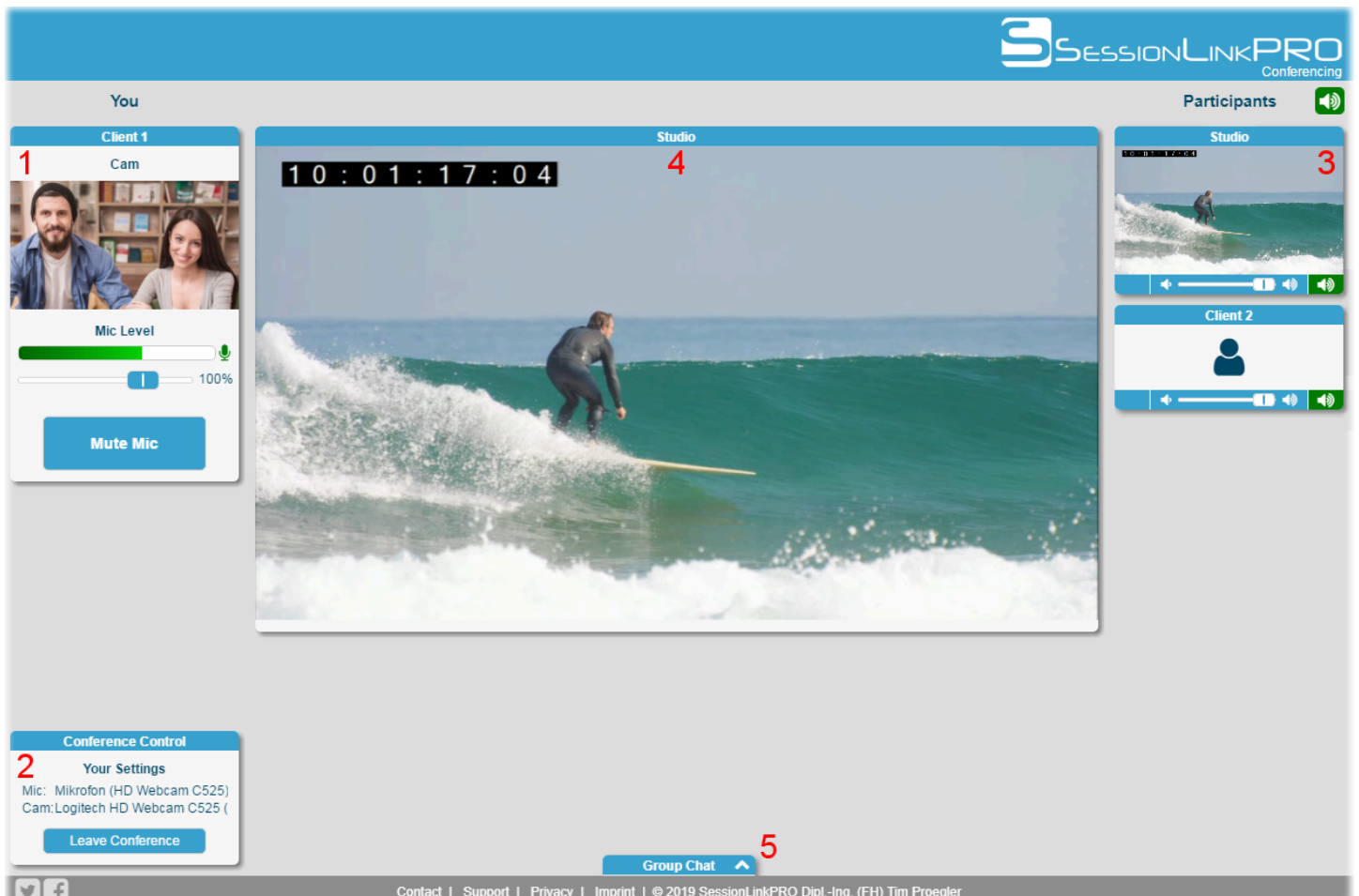
If the conference is password protected, an additional password field will appear. Please enter the password to be able to join.

The “Join Conference” button will be available as soon as the host has joined the conference. Click this button to join the conference.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

5.2.2 Conference Main Window

When the conference is started, you will see the main conference window.



The main window consists of 3 areas. On the left, you'll find the local audio/video controls ("You") and the conference controls. On the right, all other participants will appear when they join the session. The free space in the middle is used to display a larger video window.

(1) **"You"**: This field holds the local audio/video controls. You can change your audio input volume and mute your signal. When muted, the push-to-talk function becomes available: simply hold the space key to talk and let it go to mute your signal again.

(2) **"Conference Control:"** Shows your hardware settings. Click the "Leave Conference" button if you want to leave the conference and return to the setup window.

(3) **"Participants"**: Each connected participant will be displayed in a small box. The box contains two controls at the bottom: the fader controls the participant's playback volume and the button in the right corner (speaker) mutes or unmutes the participant's audio signal. If a video stream is available, a video preview will be shown. A click on the video preview opens a larger version in the middle of the user interface (4).

Above all connected participants, you can find a "mute all" button. This button mutes or unmutes all incoming audio signals with a single click.

(4) This space is reserved for displaying a larger video. A click on one of the preview videos opens a larger version here. Clicking the preview again closes the large video.

A click on the large video in the middle activates fullscreen mode. Click again or press ESC to leave fullscreen mode.

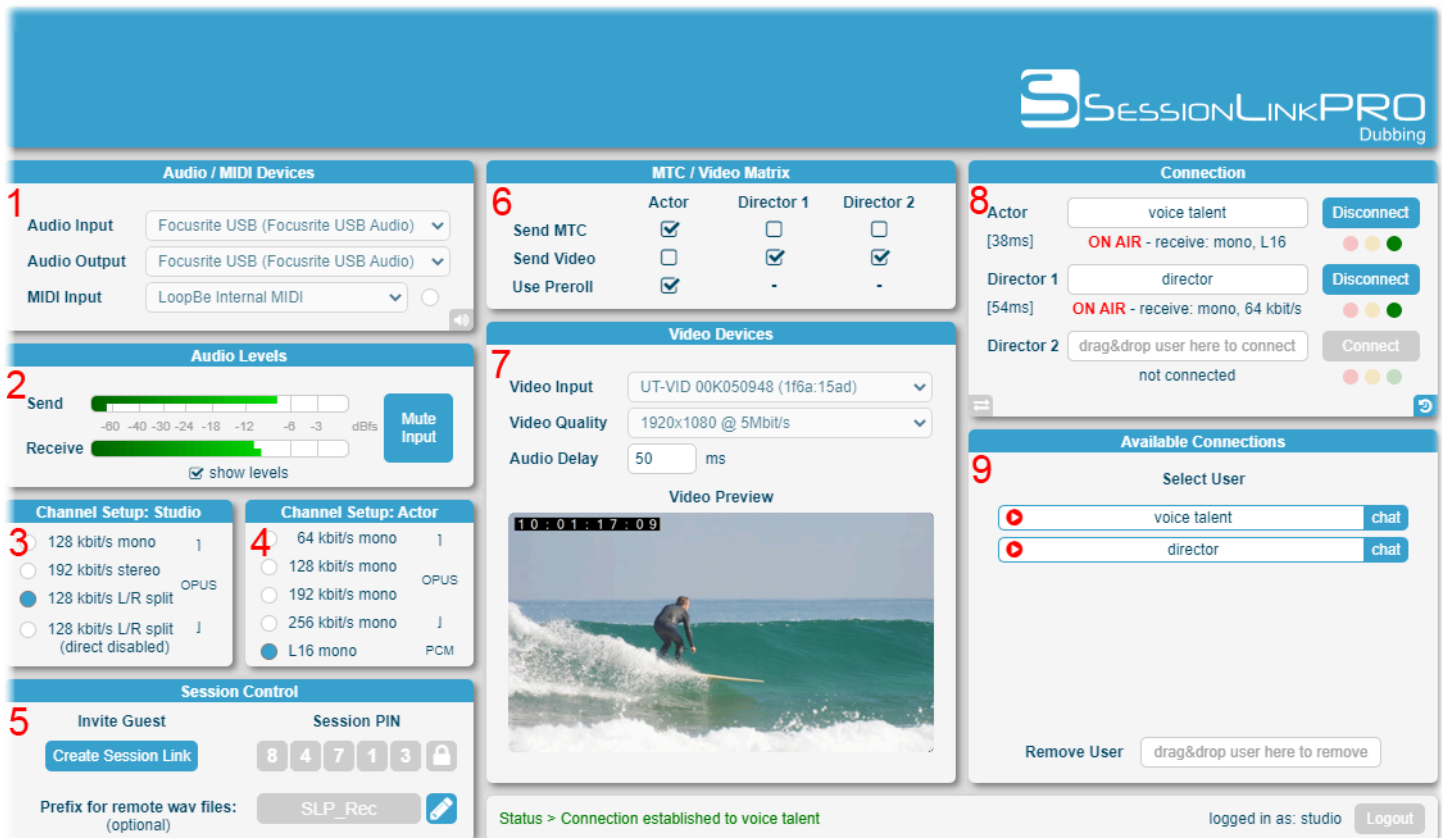
(5) **"Group Chat"**: This button opens a group chat between all participants of the conference.

6. SessionLinkPRO | Dubbing

This chapter covers SessionLinkPRO | Dubbing.

6.1 The user interface (HOST)

After login, you'll see the main window of the user interface:



6.1.1 Audio / MIDI Devices (1)

In this section, you can set up your audio and MIDI hardware.

“Audio Input”: select the desired audio interface's input or microphone. The signal picked up by the audio input will be transmitted to the guest.

“Audio Output”: select the desired audio interface's output or your headphone, active monitors etc. The signal from the guests will be routed through this output.

“MIDI input”: select an optional MIDI input if you want to transmit MIDI signals to the far end, e.g MTC to sync a remote DAW or MIDI controller messages for automated recording.

Audio test loop: the small speaker button (lower right corner) activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

6.1.2 Audio Levels (2)

This section has two stereo level meters, a clipping indicator and a "Mute Input" button.

"Send" meter: it displays the level of your audio input (the signal, which will be transmitted to the guest).

"Receive" meter: the level of the incoming signal is displayed here.

An additional clipping indicator warns if local or remote audio signals exceed the maximum level.

"Mute Input" button: with this button, you are able to mute or unmute the outgoing signal. When muted, a push-to-talk function becomes available: simply hold the space key to talk and let it go to mute your signal again.

6.1.3 Channel Setup: Studio (3)

Setup channel mode for the **outgoing** signal. This can either be mono, stereo, L/R split or L/R split (direct disabled). In mono or stereo mode, all guests receive the same signal. With both L/R split modes, different signals can be sent to the actor (left channel of the send signal) and the directors (right channel of the send signal) to allow different mixes for the actor and the directors. L/R split mode uses a direct connection between the "Actor" channel and the "Director" channels. In L/R split (direct disabled) mode, there is no direct connection between the "Actor" channel and the "Director" channels.

6.1.4 Channel Setup: Actor (4)

Select the desired audio bitrate and encoding for the **incoming signal of the actor**. You can choose between 64, 128, 192 and 256 kbit/s OPUS and PCM L16 (both in mono). The recommended setting is PCM L16 or 256 kbit/s OPUS.

The incoming signal of the director channels is always fixed at 64 kbit/s mono.

6.1.5 Session Control (5)

This section allows the user to invite guests, set the session PIN for increased security and predefine a prefix for naming remotely recorded wav files on the actor's end.

"Session PIN": All sessions are secured by a mandatory session PIN. No connections are possible without setting a session PIN. In each session, choose a unique PIN and lock the session by clicking the button with the lock icon. Once the session is secured by the PIN, the "Available Connections" area becomes available and guests are allowed to enter the waiting room. Communicate the session PIN separately to the guests to maintain optimum security.

"Prefix for remote wav files": The actor may record wav files of the local signal. By configuring a prefix the host can define a naming convention for these wav files (if no file name is entered on the

actor's side).

“Invite Guest”: To invite a guest to join the session, you need to generate a session link. A click on "Create Session Link" opens an additional menu.

The session link will automatically be generated. Send the link to your guest via the built-in email function or copy the link and paste it to your favorite email client.

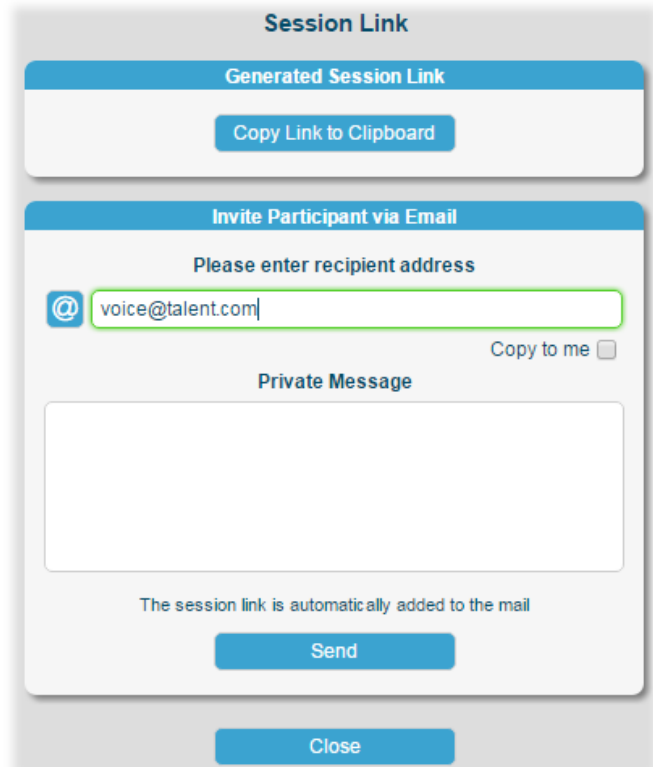
Use the address book function to store frequently used email addresses: a click on "@" opens the address book. The address book holds up to 150 entries.

6.1.6 MTC / Video Matrix (6)

The MTC / Video Matrix allows sending either MTC, a video stream or both to each channel independently. Choose “Send MTC” and/or “Send Video” for each guest. If nothing is checked, only audio is transmitted.

If you want to sync a remote DAW via MTC, use the on-screen recording light feature or make use of the “Record Control” function for the remote end, checking MTC is mandatory (see 6.3).

“Use Preroll” may be used in combination with “Send MTC” if preroll should be taken into account by the “Record Control” function.



6.1.7 Video Devices (7)

Sending a video stream is optional. Select your video capture device (e.g. a capture card, a webcam or the built-in screen capture, see appendix 7.4 for video routing examples) and video resolution/bitrate. A video preview should appear if the video capture device is successfully initialized.

The “Audio Delay” setting can compensate for different audio and video capture delays. The video is usually behind the audio. By adding an audio delay, the sync can be adjusted.

To transmit a video stream to a guest, check the corresponding “Send Video” checkbox in the “MTC / Video Matrix” section (see 6.1.6).

6.1.8 Available Connections (9)

This section is the "waiting room" for your guests.

When a guest opens the session link, an entry will appear in the queue. The queue holds up to 8 entries. Each entry has a "chat" button, which allows you to open a chat with the corresponding

guest. The chat button turns red when a new message is available.

To start a connection with one of the guests, just drag and drop the corresponding entry to the "Actor", "Director 1 " or "Director 2" field in the "Connection" section above and click "Connect" (see 6.1.9).

To remove a user from the queue, just drag and drop the corresponding entry to the "Remove User" field at the bottom of this section.

6.1.9 Connection (8)

This section allows to start or stop a connection with a selected guest from the queue (see 6.1.8).

The section has three channels, one dedicated actor channel and two channels for directors or other guests. The channels have different quality settings and the incoming signals are routed to different output channels.

"Actor": This channel is for the actor. The audio quality for the actor's signal can be chosen in the "Channel Setup: Actor" section (see 6.1.4). The incoming signal will be routed to the left output channel.

"Director 1" and "Director 2": The audio quality for these channels is fixed at 64 kbit/s OPUS mono. Both channels are mixed down to the right output channel.

To start a connection, drag and drop the desired entry from the queue to one of the channels. Now the "Connect" button becomes available. A click on this button starts the connection. "ON AIR" will be displayed along with the audio quality of the incoming signal of this channel to confirm the connection was established.

The estimated one-way delay of each channel is displayed below the channel name. Below each "Connect" button, a traffic light provides an indication of the network quality of the connection.

Hovering the mouse pointer over the "ON AIR" message and the traffic light opens a tooltip with additional connection related data.

To stop a connection, just click on "Disconnect".

Side note: instead of dragging and dropping, also double clicking a queue entry moves the corresponding entry to the channels.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

Connection history: By pressing the button in the lower right corner (icon: clock with an arrow counterclockwise) the connection history will be displayed. Due to privacy reasons, the connection history will be deleted after a log out or when closing the browser.

6.2 The user interface (GUEST)

When you open a session link, you will be asked to enter your name and the session PIN provided by the session host.

You may also choose the desired audio input and audio output device.

The button “Test Loop” activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

If you have not used SessionLinkPRO | Dubbing before on your computer, a network test will be offered. It is recommended to run this network test to verify that your firewall is set up correctly for use with SessionLinkPRO and that your internet access is suitable for realtime media transmission.

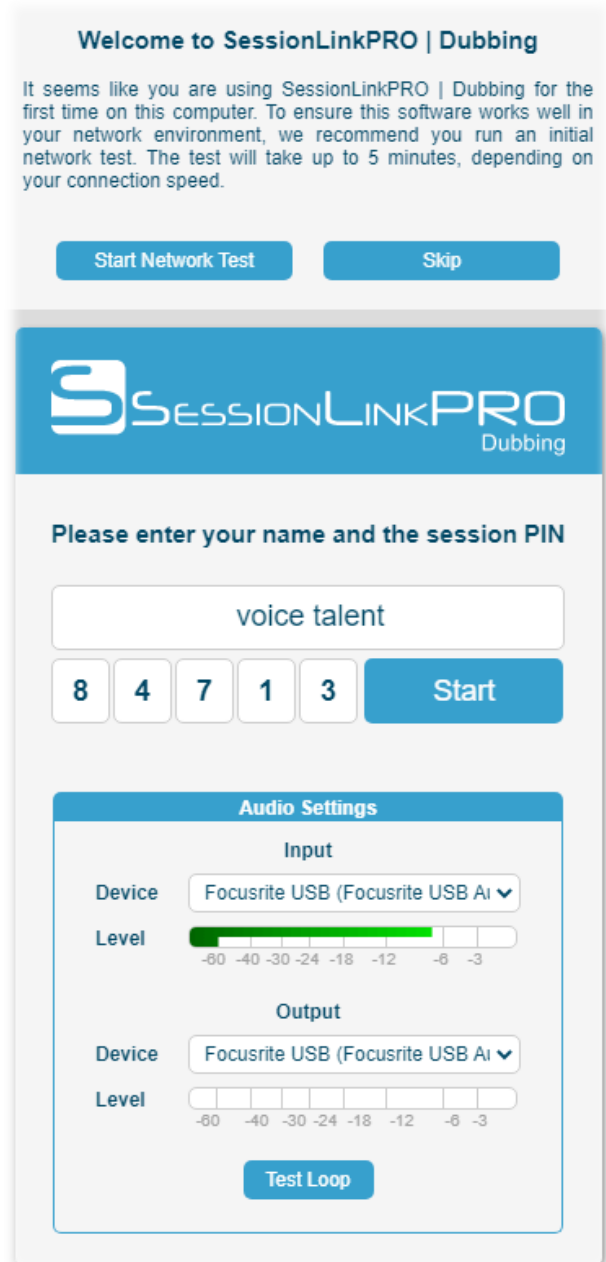
The results of the network test are marked with different colors:

- green: test passed -> you are good to go
- yellow: test partly failed -> SessionLinkPRO will work but it might be necessary to improve network conditions
- red: test failed -> SessionLinkPRO might not work in your network environment

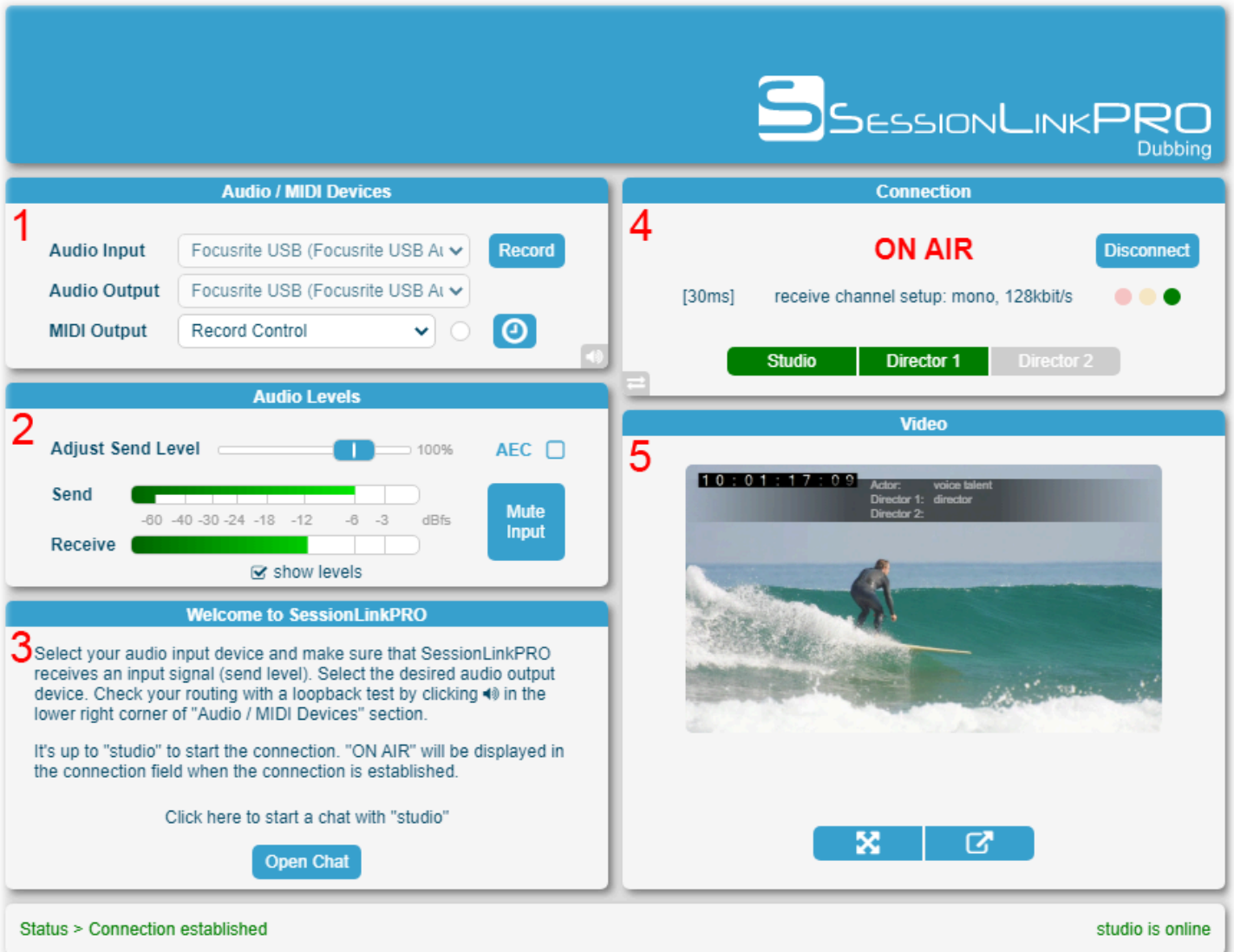
In case you see failed results, please contact the session host and/or our support.

If the network test is successful or if you have completed the network test earlier, please click “Start” to continue.

The host has to be online in order to continue. If the host is not yet online, you will see a corresponding message after you clicked on “Start”. Please wait until the host is online. You will then be automatically forwarded to the next page.



You will now see the main user interface:



6.2.1 Welcome to SessionLinkPRO (3)

In addition to a short introduction to SessionLinkPRO | Dubbing, you can find a chat function in this section.

Click on "Open Chat" to start a chat with the session host. The button turns red, if a new message is available.

6.2.2 Audio / MIDI Devices (1)

In this section, you can set up your audio and MIDI hardware and enable the "Record Control" feature for automatic recording in sync with the host's DAW.

"Audio Input": select the desired audio interface's input or microphone. The signal picked up by the

audio input will be transmitted to the host.

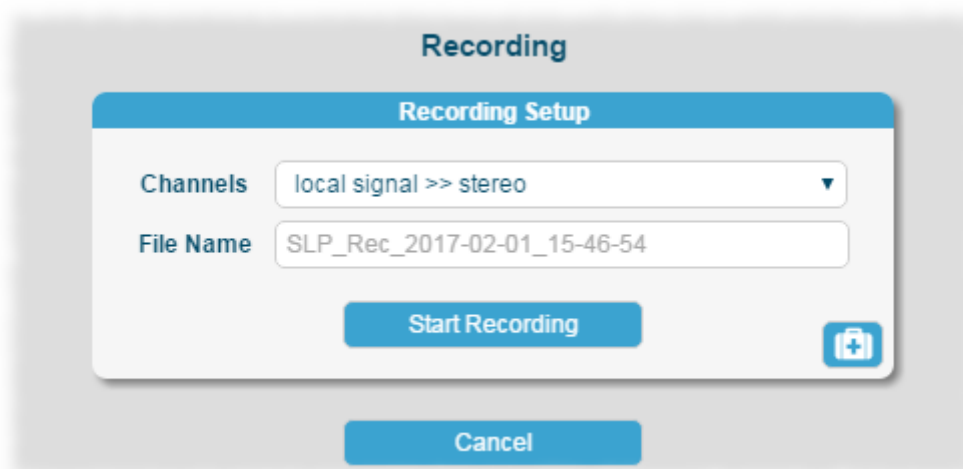
“Audio Output”: select the desired audio interface's output or your headphone, active monitors etc. The signal from the host will be routed through this output.

“MIDI output”: select an optional MIDI output if you want to receive MIDI signals from the far end, e.g MTC to sync your DAW to the remote DAW. It is possible to either choose a MIDI output port to forward MIDI signals to a different application, to view incoming timecode by selecting “Internal MTC Display” or to allow remote controlled recording by choosing either “Record Control” or “Record Control (Preroll)”. See chapter 6.3 for more information on remote controlled recording.

“Record” button: record directly in SessionLinkPRO | Dubbing. Choose the signal source and channels from the “Channels” selector. If you record locally without remote control of the host you may enter a name for your recording or keep the suggested filename.

Important: If remote controlled recording is used, please do not enter a filename. Please refer to chapter 6.3 for how to set up remote controlled recording.

When the recording is started, PCM data (48kHz, 24bits) will be stored to disk. The complete file becomes available as soon as the recording is stopped. In case of a system crash, you can recover your recording through the button in the lower right corner (doctor’s case icon).



Audio test loop: the small speaker button (lower right corner) activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

6.2.3 Audio Levels (2)

This section has two stereo level meters, a clipping indicator, a fader to control the send level, an option to toggle acoustic echo cancellation and a "Mute Input" button.

“Adjust Send Level” fader: adjust the level of your send signal.

“Send” meter: it displays the level of your audio input (the signal, which will be transmitted to the host).

"Receive" meter: the level of the incoming signal is displayed here.

An additional clipping indicator warns if local or remote audio signals exceed the maximum level.

"AEC" checkbox: checking this checkbox enables acoustic echo cancellation (AEC) to prevent feedback if no headphones are used.

Important: *if you join the session as a voice actor, always disable AEC to prevent unwanted effects on your send signal.*

"Mute Input" button: with this button, you are able to mute or unmute the outgoing signal. When muted, a push-to-talk function becomes available: simply hold the space key to talk and let it go to mute your signal again.

6.2.4 Connection (4)

After you have entered the main user interface, the session host will be notified that you are logged in. You are now in a waiting state, which is indicated by a blinking "requesting connection".

It is up to the host to finally establish the connection. "ON AIR" will be displayed along with the audio quality of the incoming channel once the connection is established.

The estimated one-way delay of each channel is displayed left of the audio quality display. Below the "Disconnect" button, a traffic light provides an indication of the network quality of the connection.

Hovering the mouse pointer over the "ON AIR" message and the traffic light opens a tooltip with additional connection related data.

Three indicators below the "ON AIR" display show the connection and mute state of the other participants.

To stop a connection, please click the "Disconnect" button.

IPv6 support: The button in the lower left corner (icon: two horizontal arrows) allows deactivating IPv6 support. Normally, IPv6 support is active, symbolized by a blue color of the button. If IPv6 support has been deactivated, the button turns red. In some cases, IPv6 connections may cause increased dropouts. IPv6 should be turned off in such cases.

6.2.5 Video (5)

This section holds the (optional) remote video received from the session host.

The video will be overlaid by a watermark showing the names of all guests. If a guest is muted, a crossed out mic icon will appear.

The buttons below the video allow to display the video in fullscreen mode or in a separate resizable

window.

In addition, this section acts as an on-screen recording light if the session host transmits the corresponding MIDI controller data.

6.3 Remote controlled recording and on-screen recording light

It is possible to remote control the actor's record function and an on-screen recording light by sending MIDI controller data to the actor.

If remote controlled recording is activated, the actor's record function will follow record and stop signals from the host's DAW. On each stop signal, a wav file in 48kHz 24bits PCM format will be generated. The wav files use BWF metadata for timecode information (if MTC is transmitted to the actor) which makes it easier to import the files into a DAW.

The on-screen recording light turns green when the host's DAW switches to record. This can be used as a cue for the voice talent.

6.3.1 Setup for the studio

To use these functions, it is necessary to enable the MTC option for the actor channel in the "MTC / Video Matrix" section (see 6.1.6) and to select a MIDI input in the "Audio / MIDI Devices" section (see 6.1.1) to forward MIDI controller data to the far end.

Configure your DAW to send the following MIDI controller protocols to SessionLinkPRO | Dubbing's MIDI input:

Pro Tools:	M-Audio Keyboard (up to version 2023.12) / HUI (starting with version 2024.3)
Nuendo / Cubase:	Steinberg Houston
Logic Pro:	Recording Light
Studio One:	M-Audio Axiom Pro

In addition, MTC should also be sent to the MIDI input.

If your DAW is setup for preroll and the remote recording should not be triggered on preroll start but on record start, check the "Use Preroll" checkbox. However, it is also possible to start the recording directly on preroll start if "Use Preroll" is unchecked. "Use Preroll" is only available for M-Audio Keyboard or Steinberg Houston controller protocols.

The actor needs to choose "Record Control" for "MIDI Output" in the "Audio / MIDI Devices" section to allow remote controlled recording. The on-screen recording light will work independently of the "MIDI Output" settings and can be used with all available options.

Important: *It is mandatory for the actor to set up the browser to automatically download to a specified folder without asking for a location. This can be done in the browser settings.*

6.3.2 Setup for the actor

To use remote controlled recording, select “Record Control” for “MIDI Output” in the “Audio / MIDI Devices” section.

Important: *It is mandatory to set up the browser to automatically download to a specified folder without asking for a location. This can be done in the browser settings.*

Important: *Do not enter a file name in the record dialog. The files will automatically be named.*

Your system is now set up for remote controlled recording. The recording function will follow the host’s DAW and start and stop to record in sync with the host. After each recording, a wav file will automatically be saved to the download directory. If you want to change the download directory, please go to the browser settings and select the download location of your choice. Please remember to always allow automatic downloading without confirmation.

Transferring the files to the host after the session is not part of SessionLinkPRO | Dubbing and needs to be done by e.g. FTP transfer, a web-based file transfer or cloud service.

The on-screen recording light will automatically be triggered by the host’s DAW if the correct MIDI controller protocol is used. There is nothing to set up on the actor’s end. The on-screen recording light (located in the “Video” section) will turn green at record start. If preroll is used on the host’s DAW, the preroll will be indicated in yellow.

7. SessionLinkPRO | Podcasting

This chapter covers SessionLinkPRO | Podcasting. SessionLinkPRO | Podcasting allows you to record podcasts in studio quality with up to 4 participants - directly inside the web browser.

7.1 The user interface (HOST)

After login, you'll see the main window of the user interface:



7.1.1 Recorder (1)

Using the recorder, all audio signals (local and remote) can be recorded. It always records all 4 available channels (the local channel and 3 guest channels), no matter if guests are connected or not.

Record button: the record button on the left side starts or stops a recording. After the recording has

started, the uncompressed audio signal is saved as PCM data in a protected area (“sandbox”) on the local hard disk.

“File Name”: the name of the recording file can be selected here. In addition to the selected name, the date and time of the start of the recording are always appended.

Time display and recording status: when a recording is in progress, the recording duration is displayed here. The red circle indicates that a recording has started.

7.1.2 Files (2)

In this area you will find a file browser that shows all the files that have already been recorded. There are also several control elements below the file browser.

“Files”: all files already recorded are displayed here. The available disk space is displayed below the file list.

Important: *The file browser is temporary storage, not suitable for permanent archiving of recordings. Although the files usually survive restarting the browser and even the computer, permanent storage cannot be guaranteed. It is strongly recommended to copy the recordings to the regular file system using the download button (see below) before exiting the application.*

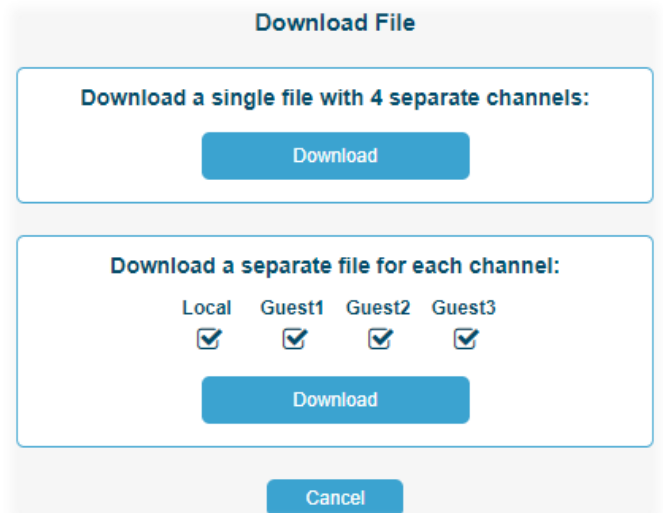
Play button: a file selected in the file browser can be played back or the playback can be stopped using the play button.

Pause button: an active playback can be paused and continued using the pause button.

Download button: this button can be used to copy a file marked in the file browser from the protected area of the hard disk to the normal file system. After clicking on the download button, the download dialog opens. In the download dialog you can choose whether a wav file with 4 channels (“Download a single file with 4 separate channels” or individual wav files with one channel each (“Download a separate file for each channel”) should be created. When generating individual wav files, you can also select which channels are to be saved.

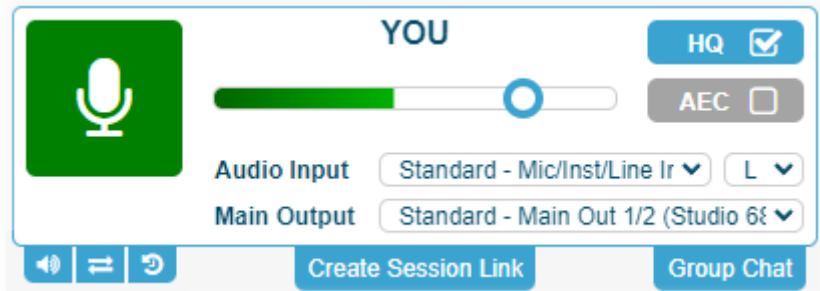
Not all media players or audio editors can open a 4-channel wav file. If channels appear to be missing during playback or editing, the recording should be saved using the “Download a separate file for each channel” option. The resulting wav files can then be aligned in the audio editor for further processing.

Delete button: this button allows you to delete one or more files selected in the file browser.



7.1.3 Connection > YOU (3)

Quality settings for the output signal and the selection of the audio input and output devices are made here.



Mute button: with the mute button (left, icon: microphone) you can mute your own microphone signal. When the signal is muted, the push-to-talk function is activated at the same time. The microphone can be opened by holding the space key and closed again by releasing it.

Level meter / volume control: the send level of your own microphone is displayed here. The blue circle represents a volume slider. The volume can be adjusted by sliding the blue circle left or right. Double-clicking on the blue circle resets the volume control to the default setting (100%).

“Audio Input”: the desired audio input or microphone is selected here. With a stereo input, the left or right channel can also be selected. The audio input signal is transmitted to the guest.

“Main Output”: the desired main audio output is selected here. In the default setting, all received signals are played back via this output.

“HQ”: selection of the audio quality for the send signal. If “HQ” is activated, an OPUS encoded signal is sent at 256 kbit/s mono (recommended). Without “HQ” the transmission quality is reduced to 64 kbit/s mono.

“AEC”: enables or disables echo cancellation. When using headphones (recommended), “AEC” should be disabled. If speakers are used instead, “AEC” should be activated.

Audio test loop: this button (bottom left, icon: speaker) activates an audio test loop. After a voice prompt, it is possible to record 5 seconds of the local audio signal and listen to it afterwards.

IPv6 support: this button (bottom left, icon: two horizontal arrows) can be used to disable IPv6 support. IPv6 support is normally active, symbolized by the blue color of the button. If IPv6 support is deactivated, the button is displayed in red. In some cases, an IPv6 connection can lead to increased dropouts. In such cases, IPv6 should be disabled.

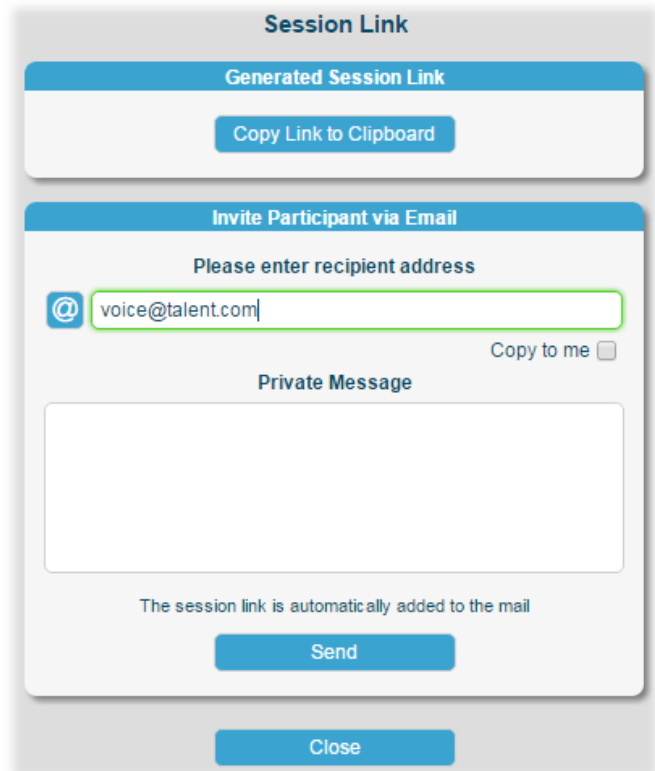
Connection history: by pressing this button (bottom left, icon: clock with arrow counter-clockwise) the connection history will be displayed. Due to privacy reasons, the connection history will be deleted after a log out or when closing the browser.

“Create Session Link”: To invite a guest to join the session, you need to generate a session link. A click on "Create Session Link" opens an additional menu.

The session link will automatically be generated. Send the link to your guest via the built-in email function or copy the link and paste it to your favorite email client.

Use the address book function to store frequently used email addresses: a click on "@" opens the address book. The address book holds up to 150 entries.

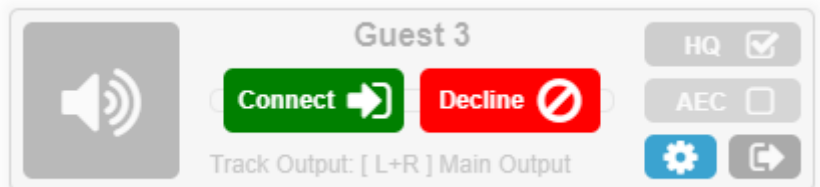
“Group Chat”: With an existing connection, a group chat can be opened between all participants.



7.1.4 Connection > GUEST (4)

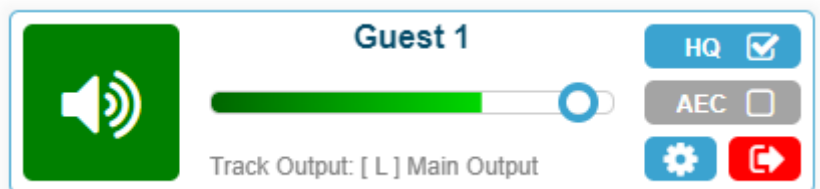
SessionLinkPRO | Podcasting includes 3 channels to add remote podcast participants (guests) to the recording.

After a guest has opened the session link and is ready to record, a corresponding message will be displayed in one of the guest channels. The connection is established via "Connect". With "Decline" the connection to the guest can be rejected.



Once a guest has been connected, the connection view is displayed.

Mute button: the guest's signal can be muted with the mute button (left, icon: loudspeaker).



Level meter / volume control: the receive level of the guest signal is displayed here. The blue circle represents a volume slider. The volume can be adjusted by sliding the blue circle left or right. Double-clicking on the blue circle resets the volume control to the default setting (100%).

“HQ”: selection of the audio quality for the received signal. If "HQ" is activated, an OPUS encoded signal is received at 256 kbit/s mono (recommended). Without "HQ" the receive quality is reduced to 64 kbit/s mono.

“AEC”: enables or disables guest echo cancellation. If the guest is using headphones

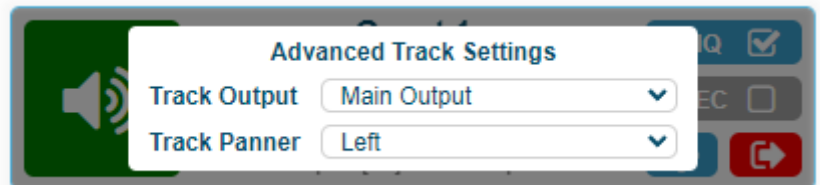
(recommended), “AEC” should be disabled. If speakers are used instead, “AEC” should be activated.

Advanced track settings: this button (bottom right, icon: cogwheel) opens the advanced track settings (see below).

Disconnect: this button (bottom right, icon: right arrow) terminates the connection to the guest.

“Track Output”: shows the selected settings for the playback of the guest signal (see below).

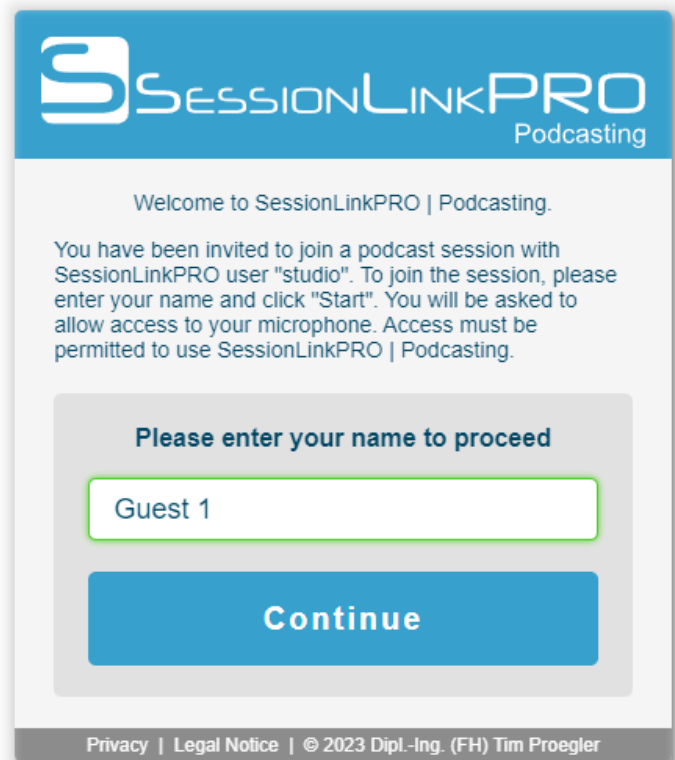
*The audio output device and the routing of the received signal can be selected via the **advanced track settings**. In the default setting, the received signal is played back via the main audio output selected under Connection > YOU. These advanced settings are mainly intended for sound engineers or experienced users who want to forward the received signals to other applications.*



7.2 The user interface (GUEST)

The user interface for guests has been reduced to the absolutely necessary to allow even inexperienced guests to easily participate in a podcast recording. The guest is guided step-by-step through the basic settings, with most of the settings being made by the host anyway.

After receiving and opening a session link, the first thing to do is enter your name and click on “Continue”.

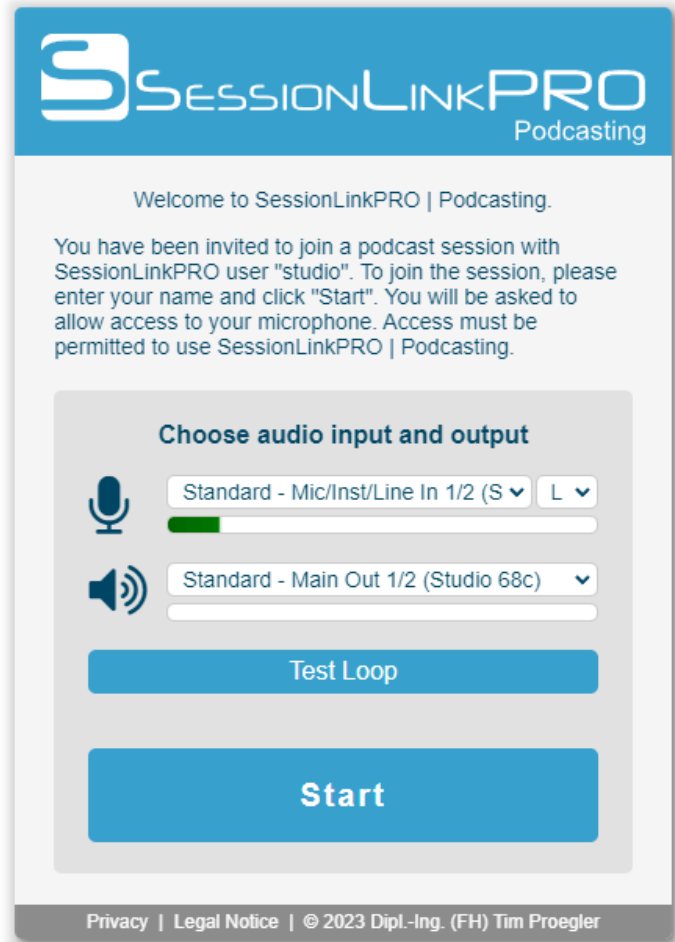


In the next step (microphone symbol) you select your audio input (either a microphone or an audio interface to which the microphone is connected) and - in the case of a stereo input - the left or right channel of the interface.

Below the selection field for the audio input there is a level meter for checking the connected microphone / audio interface.

Then, next to the loudspeaker symbol, select the audio output to which the headphones (recommended) or the loudspeakers are connected.

The settings can be checked using an audio test loop via the "Test Loop" button. After an announcement, 5 seconds of your own audio signal can be recorded and then played back. During playback, the level meter below the selection field for the audio output should also visualize the recorded signal.



If the settings are correct, the "Start" button takes you to the main view of the user interface.

“ON AIR”: this display shows the current connection status:

Host offline: the host is not logged in

Host online: the host is logged in but the connection has not yet started

ON AIR: the connection is active

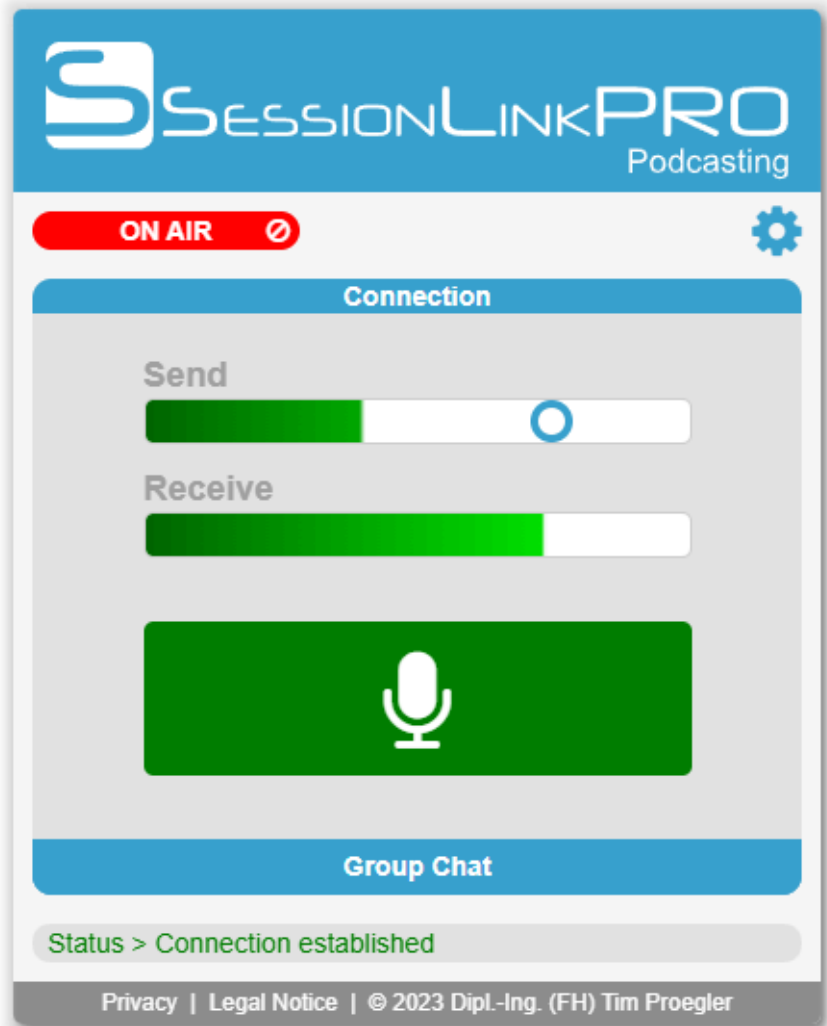
Advanced settings: this button (top right, symbol: cogwheel) opens the advanced settings (see below).

Level meter “Send” / volume control: the send level of your own microphone is displayed here. The blue circle represents a volume slider. The volume can be adjusted by sliding the blue circle left or right. Double-clicking on the blue circle resets the volume control to the default setting (100%).

Level meter “Receive”: the receive level of the other participants is displayed here.

Mute button: you can use the mute button (icon: microphone) to mute your own microphone signal. When the signal is muted, the push-to-talk function is activated at the same time. The microphone can be opened by holding the space key and closed again by releasing it.

“Group Chat”: this button opens a group chat with the other participants.



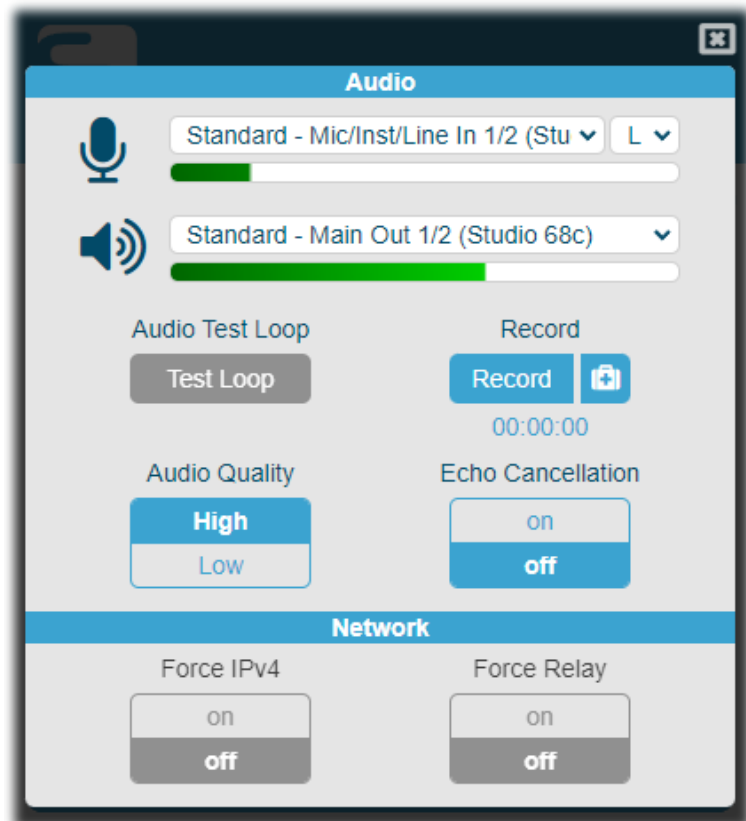
*In the **advanced settings**, the audio input and output devices can also be selected and the audio test loop can be used.*

In addition, the “Record” button can be used to start recording your own signal. The button with the doctor's case icon is used to restore the last recording if, for example, the application was accidentally closed or the computer crashed.

There are also switches for selecting the audio quality (“Audio Quality”) and echo suppression (“Echo Cancellation”).

A connection can be forced to use the IPv4 protocol via “Force IPv4” and with “Force Relay” the connection is always routed via a relay server.

These advanced settings are mainly aimed at audio engineers or experienced users.



8. Appendix

8.1 Dual mono mode explained

SessionLinkPRO | Recording comes with dual mono capability. This means, you are able to connect two guests simultaneously. To make proper use of this feature, you need to understand what happens with the internal routing of SessionLinkPRO | Recording.

When you switch to dual mono, the left and right channels will be splitted into two independent mono channels.

The left input channel will be routed to the guest connected as "Remote User 1" and the right channel will be routed to "Remote User 2".

The same applies to the incoming signal. The signal from "Remote User 1" will be routed to the left output channel and the signal from "Remote user 2" to the right output channel.

You are now able to record both guests on dedicated channels in your DAW.

The optional "bridged" mode allows forwarding the incoming signals of both guests to each other. Using this option, both guests are able to hear each other and there is no need to set up a corresponding routing in the DAW. Additionally, both input channels are downmixed before being sent to the guests. Both guests therefore receive the same signal.

MIDI signals will always be transmitted to both guests.

Please note that the session links for a dual mono session should always be pre-set to mono.

8.2 Audio routing examples

Depending on your hardware and software, there are a lot of possible audio routings.

8.2.1 Setup with 1 audio interface

If your audio interface allows access from multiple applications simultaneously, you can probably set up a routing with this single interface. Draw a cable from a free output A to a free input B and from a free output B to a free input A.

In SessionLinkPRO, select input B as the audio input device and output B as the audio output device.

In your DAW, select Input A as the source for the record track. You should now be able to record signals from SessionLinkPRO. To send signals to SessionLinkPRO, route a track's output or a track's send to output A.

Depending on your audio interface's driver, it might be necessary to use input 1-2 and output 1-2 (or main out) for SessionLinkPRO if only one entry is visible for your interface. If all input and output

pairs are visible you are free to choose.

8.2.2 Setup with 2 audio interfaces

Use audio interface A for your DAW and audio interface B for SessionLinkPRO. Wire a free output on interface A with a free input on interface B (best choice would be input 1-2 as this works with all interfaces) and a free input on interface A with a free output on interface B (output 1-2/main out preferably).

In SessionLinkPRO, select the chosen input on interface B as audio input device and the chosen output on interface B as audio output device.

In your DAW, select the chosen input on interface A as source for your record track. You should now be able to record signals from SessionLinkPRO. To send signals to SessionLinkPRO, route a track's output or a track's send to the chosen output on interface A.

Attention: it is mandatory to disable direct monitoring on interface B. Otherwise, incoming signals from the guest will be routed back to the guest.

8.2.3 Setup with virtual drivers (macOS only)

MacOS allows you to create an Aggregate Device to combine your audio interface with two virtual audio drivers in order to set up a digital connection between the DAW and SessionLinkPRO. You will need to install two virtual audio drivers (e.g. Soundflower, Black Hole, Source-Nexus free etc.).

In Audio-MIDI-Setup, create a new Aggregate Device and check your audio interface and the two virtual drivers.

In your DAW, select the Aggregate Device as playback and recording engine instead of your audio interface. This way, all channels of the audio interface and the channels of the virtual drivers will be available in your DAW.

In SessionLinkPRO, choose one virtual audio driver (A) for Audio Input and the other virtual driver (B) for Audio Output.

All signals routed to channels 1/2 of virtual driver A in your DAW will be transmitted through SessionLinkPRO. Signals received with SessionLinkPRO will exist on channels 1/2 of virtual audio driver B in your DAW.

8.2.4 Setup with Source-Nexus Pro (macOS only)

Another option on macOS is the (paid) Source-Nexus Pro plugin (min. version 1.1) from Source Elements. The plugin comes as AAX, AU and VST versions and includes the two virtual audio drivers Source-Nexus A and Source-Nexus B.

Choose Source-Nexus A for Audio Input and Source-Nexus B for Audio Output in SessionLinkPRO.

In your DAW, create a new stereo AUX track (or a stereo group track for Steinberg products) and select the Source-Nexus Pro plugin as an insert. Select Source-Nexus A driver for Send and Source-Nexus B driver for Receive in the plugin. The input of the AUX track needs to be set to an unused bus (e.g. bus 1) and the output of the AUX track should also be set to an unused bus (e.g. bus 2).

To send with SessionLinkPRO, route all relevant signals via bus 1 to the input of the AUX track, e.g. via a send.

Signals received with SessionLinkPRO will exist at the output of the AUX track and can be routed to any audio track via bus 2.

8.3 MIDI routing examples

There are basically two options to route MIDI signal between SessionLinkPRO and a DAW:

8.3.1 Setup with virtual MIDI drivers

Virtual MIDI drivers are a convenient way to exchange MIDI signals between different applications. macOS provides the built-in IAC driver. For Windows systems, third party virtual MIDI drivers are necessary.

To route MIDI signals from your DAW to SessionLinkPRO, choose the virtual MIDI driver as MIDI output in your DAW and as MIDI Input in SessionLinkPRO.

To forward MIDI signals received with SessionLinkPRO to your DAW, choose the virtual MIDI driver as MIDI Output in SessionLinkPRO and as MIDI input in your DAW.

8.3.2 Setup with a MIDI interface (or the MIDI ports of an audio interface)

You will need to connect a MIDI input port to a MIDI output port using a MIDI cable.

To route MIDI signals from your DAW to SessionLinkPRO, choose the MIDI output port as MIDI output in your DAW and the MIDI input port as MIDI Input in SessionLinkPRO.

To forward MIDI signals received with SessionLinkPRO to your DAW, choose the MIDI output port as MIDI Output in SessionLinkPRO and the MIDI input port as MIDI input in your DAW.

8.4 Video routing examples

Though the built-in screen capture routine often works well, we recommend using a video capture device for optimum performance. A video capture device can either capture the HDMI output of a graphics card or the output of a video i/o interface.

8.4.1 A graphics card as video source

Connect a spare HDMI output of the graphics card to the input of the video capture device using an HDMI cable. Your operating system will detect the new connection and treat the video capture device as an additional monitor.

Go to your operating system's monitor settings and configure the additional monitor to mirror an existing monitor. Move your DAW's video window to the monitor that is mirrored to the video capture device. Select the video capture device as Video Input Device in SessionLinkPRO.

8.4.2 A video I/O interface as video source

Connect your video I/O interface's output to the input of the video capture device using an HDMI or SDI cable (depends on your hardware). If you need to feed a local monitor simultaneously, you will need to use a video splitter in between to distribute the signals to both devices.

Select the video capture device as Video Input Device in SessionLinkPRO.