Luci Studio manual, Version 3.2

introduction Luci® Studio

Live two way LOW DELAY broadcast

Congratulations with your choice of Luci® Studio! Luci® Studio transforms your PC into a high quality live internet broadcasting receiver. Until now you had to use very expensive satellite-time or the suchlike, but now, with the emergence of high-speed wireless internet access and the use of Luci® Live and Luci® Studio, the cost of live broadcasting is practically zero.

The main features of Luci® Studio are listed below

o Receive RTP low-delay streaming, two-way, so includes sending a return channel
o Transmit RTP low-delay streams from the field, includes receiving a return channel.
o Support for multicast streaming connections, Transmit or Receive.
o Shoutcast/Icecast source.
o Easy multichannel configuration with new version 3.0. Configurations of 40 simultaneous stereo streams per computer are possible.
o Codecs: MP2,AAC, AAC-HE, AAC-HEV2, G711, G722, ULCC, FLAC, Linear
o 24-bit ULCC audio codec, 44.1 to 384 kHz sample-rate.
o Constantly updated to the latest IP-technology and standards
o Free help desk via email

This manual consist of 5 main chapters

SYSTEM REQUIREMENTS
The kind of devices needed, software compatibility, audio cards, plugs etc. for both users, reporters, backoffice and program makers / technicians or web (radio) masters

QUICK INSTALLATION GUIDE
Both software installation and license or registration process is explained in detail for both users, reporters, backoffice and program makers

USER GUIDE / WORKFLOW
For users reporters who are using a PC equipped with Luci® Studio software

SET-UP TECHNICAL GUIDE
Luci Studio Setup allows backoffice / program makers / technicians or web (radio) masters to define the technical set-up and the general behaviour of the software

HOW TO
Guides for setting up Luci Studio as a server.

system requirements

Luci® Studio software can be installed on any Windows PC with a soundcard or audio-drivers that emulate soundcards, like Lawo's Jade,

Supported Windows OS:

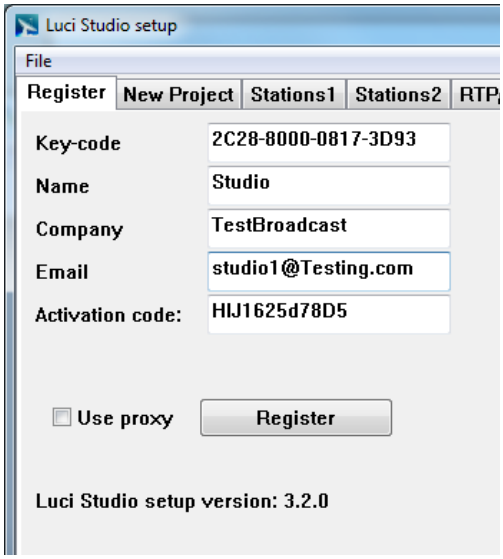
o Windows 8
o Windows 7
o Windows Vista
o Windows XP

quick installation guide

Software installation

You've downloaded the install-program called LuciStudio..exe, just double-click on the file and it will install. If you tick “Start Setup” you will enter the Setup program immediately which allows you to activate your PC to run the full version of Luci Studio.
You can do this later also if you run Luci Studio Setup from your Start menu.

License activation



You will now enter the page Register

If you have purchased Luci online via www.luci.eu your Activation code will be issued in your order confirmation e-mail. If you have purchased Luci any other way you will also receive an e-mail with these important numbers. Be sure to save these numbers in case you need to re-install your Luci® Software.

Registration is the process of unlocking your software for one particular PC. To activate, you request a unique 'key-code' that belongs to the particular PC you use to register and want to use Luci on.

When you buy 1 or more licenses for Luci, you receive only 1 activation code from us that enables you to activate the purchased number of different PC's. For each PC that you register, fill in the activation code and press ‘Register’. First, a message appears to confirm that you have an internet-connection:

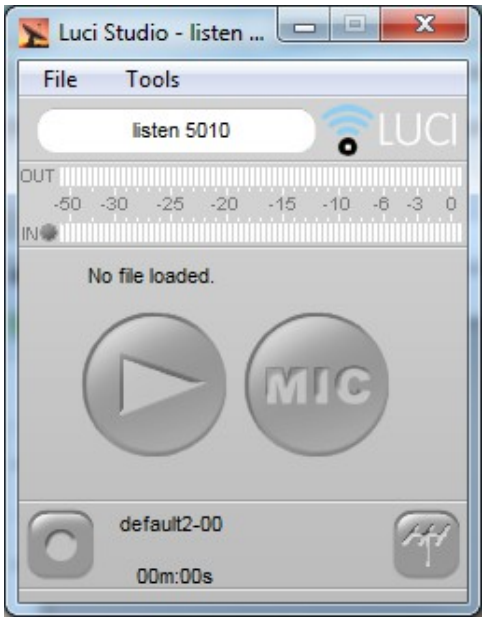
- If you have an internet-connection and answer OK you will receive the key-code after a few seconds.

After you have pressed 'Register' and you received the Key-code it is automatically filled into the field called 'Key-code' and a message appears to indicate how many activations you have left if you purchased more than one.

Go to adjust the next page or choose menu “File/Save and exit” to save and leave Setup

user guide / workflow

go live



Start Luci Studio in your Start Menu

You will now enter the main 'Go Live' screen that you use to work with.

“Listen 5010”
Tap on this field and you can choose the profile that you want to use from the ones you defined in Luci Studio Setup. If you have chosen a shoutcast or icecast station you can type in the name of the 'song-title' that will appear in all of your listeners internet radio player
OUT Level-meter
This is the level-meter of the outgoing signal on the internet. Including a peak-hold
IN Level-meter
This is the level-meter of the incoming return signal. Including a peak-hold and a little light with 3 states: off for no incoming signal, green for incoming signal without errors, red when a receiving error occurred
No file loaded
If you load a file for playing while broadcasting, its name will appear here. Now it's only telling you that you have no file loaded yet
d**efault2-00**
The name that will be used when you make a recording
00m:00s
The length of the current recording in minutes:seconds
Furthermore you see 2 big buttons and 2 smaller buttons:
The big buttons are the ‘Play-button’ (shown in the OFF-state here) for playing a pre-recorded project or file and a ‘MIC-button’ to activate the Microphone (internal or external, shown in the OFF-state here).
The smaller buttons are a 'Record-button' (shown in the OFF-state here also) to start recording and an ‘Antenna-button’ (shown in the OFF-state here) to connect to your internet radio-server or start listening for incoming connections.

connect to your server

Press the 'Antenna-button'. Luci Studio will try to contact your server you have setup with Luci Studio Setup or starts listening for incoming streams when the profile is setup for listening for incoming connections ie act as a server. While doing so, half of this button will flash until a connection is made, then the whole button will be lit.

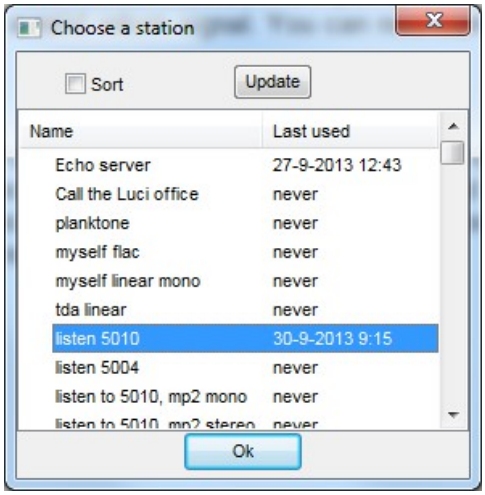
If no connection can be made, flashing will stop after a while and the button will not be lit. Try again and / or contact your program producer back at the radio station.

All set ?

Press the MIC-button to go live

You are now sending your Mic-signal to the server. The server will send a return audio signal back which causes the Input-light to become green indicating you have a valid return signal. You can now communicate with the studio.

If you're using the PC-version you can not move or close this window while you are connected. You must first stop the MIC- and Connect -button. This is a security protection against accidental mouse-clicks that might stop your transmission.



Choose a different station

If you have predefined several station profiles in Luci Studio setup, you can choose the menu-item Tools → Station. Alternatively, you can also click on the name of the station (“listen 5010” in the image above).

A small window appears with all stations in a list. Choose one and press OK to switch over to that station or just double click on one

You can also sort the stations according to the alphabet or the last time you were connected.

user guide / workflow

save live

Recording while broadcasting live

You have the ability to save the live audio that you transmit by recording the item. This is a precaution in case you loose your internet-connection but are still sending important news and you do not want your recordings to get lost. It is best to define a new project before starting to record.

Choose menu File → New project for recording

Luci will then ask you for a name that will be used for the recordings.

For this example the name ‘Newp’ is chosen.

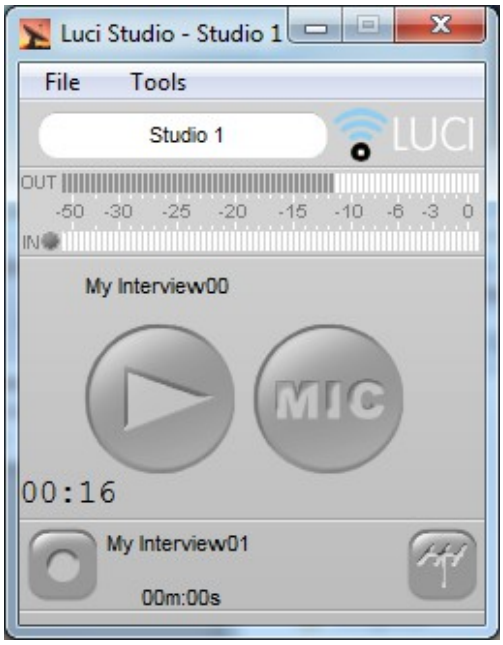
Now Go Live by tapping the MIC-button

Then press the Record-button

The time-indicator will start to run and the name besides the Record-button will be the file you are recording. If you press the Record-button again, recording stops. If you then press the Record-button again, recording continues in the same file as before. Only if you deactivate the MIC-button, this recording will be closed and the filename increments to Newp01 to indicate the new filename you will record the next time.
You can also record without broadcasting Live: Press Record and then Mic or vice-versa.

user guide / workflow

insert pre-recorded material while live reporting from the field.



You can play pre-recorded material while you are on the air

For this you must first load a single uncompressed wave-file to play. The file must also contain the same number of channels as the stream you are transmitting. So, stereo file for stereo and mono file for mono. Supported sample rates are 44.1 and 48 Khz. Supported bit depth is 16 or 24-bit.

To load a single file choose menu File → Open file for playing

After you have chosen the file called ‘My Interview00’ for instance, the name will appear above the ‘Play-button’ and the total recorded time of this file will appear at the bottom left of this button.

Add pre-recorded files while broadcasting live

Go live by pressing the MIC-button

After a short live introduction you can now add the pre-recorded file by pressing the ‘Play-button’. You will now see that the MIC is switched off automatically (for the case where you have set the fade to be Auto mic mute in Live2Setup) until the playing of the pre-recorded file is finished. Then it will switch on again automatically.

Watch the time-indicator at the bottom left of this button. It will start to count down and the ‘Play-button’ will gradually ‘run empty’ (see next screenshot).

If you want to interrupt the transmission of the pre-recorded file: press the ‘Play-button’ again, or press the ‘MIC-button’ in order to immediately switch over to live broadcasting yourself.

You can of course also transmit only pre-recorded files without actually broadcasting live yourself.

playing

Watch the time indicator at the bottom left of the Play-button. It is counting down and the Play-button will gradually 'run empty'. 6 seconds left and then this file has been transmitted completely.

user guide / workflow

keyboard shortcuts

The following keyboard shortcuts are available on the PC:

S = Choose Station

C = Connect

Space-bar= Mic

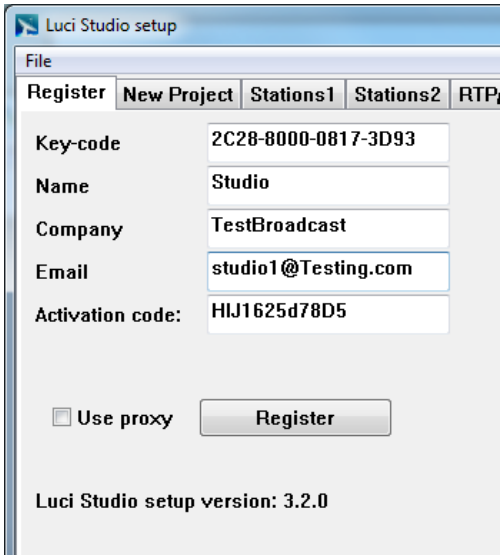
P = Play

L = Load file or project for playing

Switch on the “button-guard” when you are afraid of accidental keyboard-presses, see Setup/Options page

set up technical guide

Register



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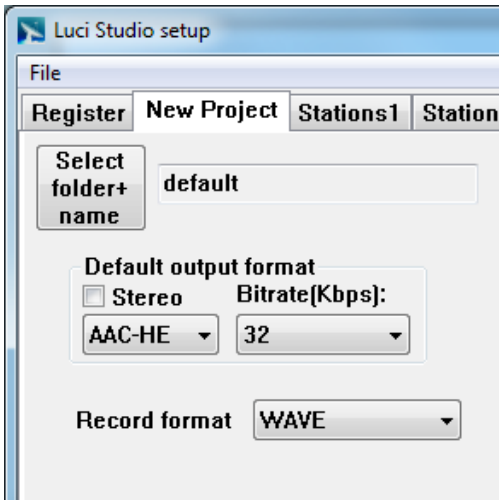
set up technical guide

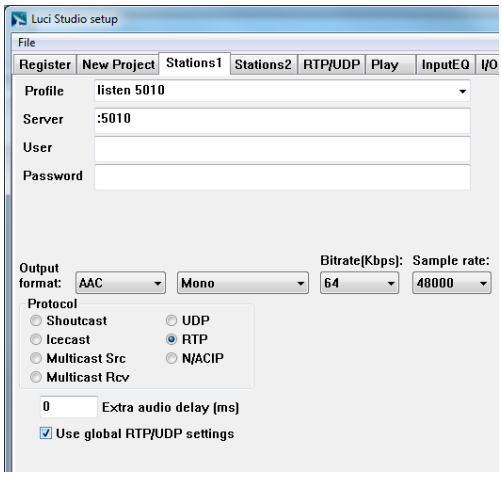
New project



Select folder+name
Enables you to select the default folder and name of a new project that is used for recording.
D**efault Output format**
This is where you set the default format when you define a new Station.
Stereo
Tick this to broadcast in Stereo.
AAC-HE
Choose the codec you want to use.
Bitrate (Kbps)
The bitrate to use, possible values:
MP2: 48 to 256 kbps.
AAC mono: 32 to 160 kbps
AAC stereo: 64 to 256 kbps
AAC-HE mono: 16 to 64 kbps
AAC-HE stereo: 16 to 128 kbps
AAC-HEv2 stereo: 16 to 56 kbps.
AAC-HE oversampled SBR stereo: 96 to 256 kbps.
Record format
If the user records with the main program, you have 2 options for the format of the recording:
Output format – the recording will be done using the same format as set above. This feature is very useful if you want to locally backup everything that is transmitted without the need of playing this live again.
Wave – the recording will be done in uncompressed wave-format. This is useful if you want to use the recording in Luci Studio again.
Go to adjust the next page or choose menu “File/Save and exit” to save and leave Setup

set up technical guide

Stations1



Profile
You can store up to 1000 server profiles. In Luci Studio you then have the ability to choose between them. You will see a drop-down list with all currently defined profiles and a profile called ´New´ that enables you to add a new profile and ´Delete´ that will delete the currently selected profile. If you have only 1 profile you can not delete that.
Each profile can use a different output format. If you choose Output format “New project” this profile will use the general output format as set before in the 'New project” page. Look at the 'New project' setup for explanation about the different available formats.
Server
The name of your radio server and port-number. In the common form: ´servername:portnr´ for instance ´radio789.com:5004´. If you do not fill in the :portnr Luci will use the default port, which is 5004. If you use Luci Studio only as a receiver i.e. server do not fill in the ip-address. But fill in :5004 for instance(including the colon). It will still send a stream back when it receives a valid stream.
Besides using a URL you can also fill in an ip-address.
For ipv4 for instance: 192.168.1.100
For ipv6 you should put the address between square brackets like this: [2001:980:4937:1:1483:291:1351:a206] . You can of course also use a URL with ipv6.
User
Fill in the user-name you use to login at your server. For the RTP protocol this is not used.
Password
Fill in the password belonging to your user name. This password can also be used in a simple RTP authentication.

Protocol
Shoutcast, Icecast, Multicast Src , Multicast Rcv, RTP, UDP or N/ACIP
Luci Studio's use of the UDP and RTP protocol is explained extensively in the server installation guide. We advice to use RTP on port 5010 .
N/ACIP
For this protocol you should use the following conventions for the different fields.
Field *Server:* “user@URL:port”
So, “user” is the one who you want to call. If you want to call without specifying a user name, just enter here something like “dummy”.
Some examples:

- “502@204.24.156.12:5062″ means you want to call user 502 at the sip server's ip-address 204.24.156.12 on sip-port 5062
- “echo@iptel.org” means you call user echo at iptel.org on sip-port 5060 (5060 is the default when no port has been specified). Btw, this address actually works, but only with G711 codecs.

Fields *User* and *Password* are YOUR credentials when you want to logon to a sip-server. When you do NOT specify a user, Luci will not try to REGISTER to the sip-server.

Multicast Src
Field *Server:*
IP-address:port , example: 224.10.1.1:7006

Multicast Rcv

Field *Server:*

- IP-address:port , example: 224.10.1.1:7006 or
- sourceIP,multicastIP:port for Source Specific Multicast , example: 192.168.1.10,224.10.10.10:7001

With Multicast Rcv protocol you can also add a failover Server where Luci Studio can connect to when the original stream stops. Accroding to conditions defined in the Options page in Setup. For an explanation of the settings, see the Options page.

Extra audio delay

Here you can set an extra audio delay of 0 to 10.000 ms (10 seconds) for different protocols:
Multicast Src: extra delay before transmitting.
Multicast Rcv: extra delay at local audio output.
All other protocols: extra delay before transmitting.

Use global RTP/UDP settings
You can have different RTP/UDP settings per station or you can use the global RTP/UDP settings set with the RTP/UDP page. For an explanation of the settings, see the RTP/UDP page.

Go to adjust the next page or choose menu "File/Save and exit" to save and leave Setup

EXPLANATORY FIELDS AND BUTTONS FOR THE SHOUTCAST AND ICECAST PROTOCOL

If you have chosen the shoutcast or icecast protocol you will see another feature list, as can be seen on the left. Some features are removed, others are added:
Mount
The mount-name, for Icecast servers.
Stream name
The name of your radio-station.
Test
You can test your server-settings with this button. Luci live two will try to contact your server.

Go to adjust the next page or choose menu "File/Save and exit" to save and leave Setup

set up technical guide

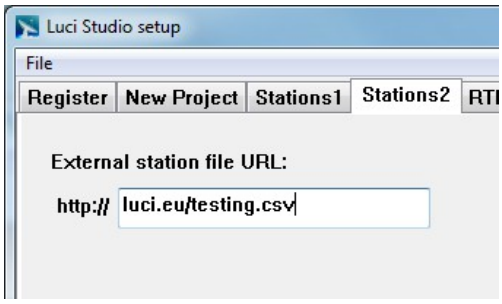
Import station list

To save you the burden of manually inputting a long list of servers you can use also use a spreadsheet to define your stations and import this spreadsheet in Setup.
File-format is csv (comma seperated values), this is a common format for simple lists which can be made and edited with any spreadsheet or even text-editor.
Just choose the menu-item “File/Import Station List” Below you see an example list. The first line of the csv-file must be the same as the first line of this example.
All entries are not case-sensitive. Each line beneath the first line represents a different server-profile.
And example and reference document can be downloaded here: http://www.luci.eu/?page_id=191

	A	B	C	D	E	F	G	H	I	J	K	L
1	Profile	Server	User	Password	Mount	Description	Protocol	Encoder	Mode	Bitrate		
2	Listen to rtp	:5004					UDP	mp2	mono	64		
3	Myself	127.0.0.1:5004	joost	mypassword	mymount	myradio	icecast	HQ SBR	stereo	32		
4	technica	technicadelarte.com					rtp	aac	mono	64		
5												
6												
7												
8												

set up technical guide

Stations2



The user can also update the station list with a station-list you can store on any webserver. Format (CSV) is the same as import station-list.

External station file URL
Only when a URL is entered the user will see a button called “Update” in the “Choose a Station” window, see image below. The imported stations are appended to the local list from Luci Studio Setup and cached locally. The list is always updated manually, no automatic update takes place.

And example and reference document can be downloaded here: http://www.luci.eu/?page_id=191

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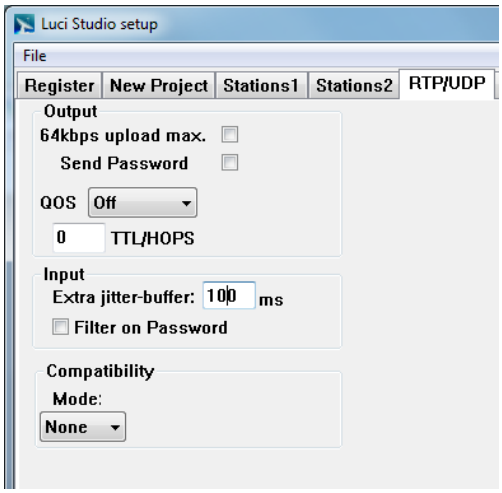
set up technical guide

RTP / UDP



Output
64kbps upload max.
If you have an upload connection of only 64 kbps you must tick this box. Luci will then only allow you to choose bitrates of 32,48 and 56 kbps. And because extra bytes have to be sent for the internet protocol, Luci will also optimize the data that is sent so that it really fits 64kbps with the shortest possible delay.
Send password
Only valid for RTP protocol. Luci will encrypt the password and send it with the RTP-protocol in the so-called SSRC field. At the receiver, this can then be used to authenticate a stream.
This is not standardized within the RTP protocol but is a simple way to add extra security and authentication. At this moment this only works with Luci at the receiving end.
QOS
Quality Of Service uses the DiffServ conventions to define the type of stream that Luci sends in ipv4 or ipv6 packets. You can set the type “Voice” for maximum priority and “Audio/Video” for slightly less priority as Voice.
Flow control
When QOS is set you can enable “Flow control” which will let the Windows OS manage the stream better as the streaming bitrate will be known to the OS.

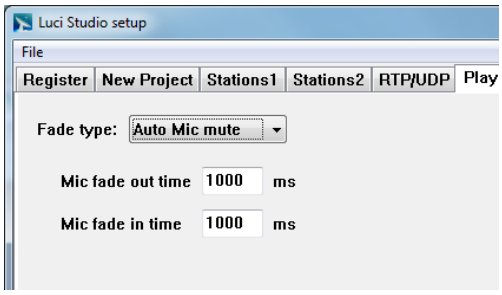
Input
Extra jitter-buffer
Fill in the number of milliseconds you want to use for the buffer to compensate for network-jitter.
Filter on password
Only valid for RTP protocol. If you receive a stream from another Luci you can refuse any stream that hasn't got the same password set as you.

Compatibility
Choose the compatibility mode when you connect to an IP-codec that needs special signalling to work with Luci:
Mayah
Compatibility mode where you can choose the format and bitrate of the return-signal and the return stream will be shut down when you disconnect Luci.
Prodys
Improves AAC-HE compatibility with Prodys codecs.

Go to adjust the next page or choose menu “File/Save and exit” to save and leave Setup

set up technical guide

Play



Here you can set how the Mic-input is muted when you play pre recorded files. You can choose to mute instantly, or fade in and out, or even gently cross-fade.

Fade type
In this drop-down menu you will find 5 options:

1. **Auto Mic mute**
   The Mic is muted instantly when you press the play button and is automatically switched on when the playing stops.
2. **Manual Mic mute**
   When you start to play the file the Mic is only muted when you manually switch it off. You must also manually switch it on again near the end of the playing file.
3. **Auto Mic fade**
   Like 1. but now the Mic is faded out with the fade-time you set in the below field 'Mic fade out time'. The same goes for the fade-in near the end of the playing file.
4. **Manual Mic fade**
   Like 3. but now you have to manually start the fade-out and fade-in.
5. **Auto Xfade**
   A gentle cross-fade is made between the playing file and the Mic. Using the fade-out and -in times set below. Fade-out time is for when you start playing the file. Fade-in time is for near the end of the playing file.

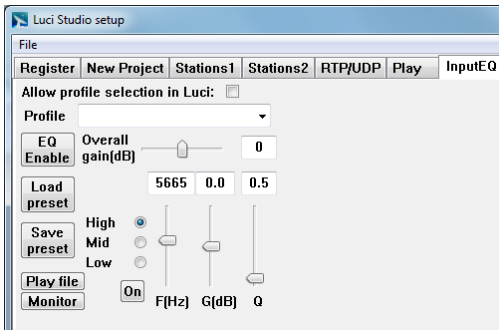
Mic fade out time
Type in the nu,ber of milliseconds you want the fade-out to last.

Mic fade in time
Type in the nu,ber of milliseconds you want the fade-in to last.

Go to adjust the next page or choose menu “File/Save and exit” to save and leave Setup.

set up technical guide

InputEQ



The 'Input EQ' enables you to perform some equalizing during recording. This feature will be removed in a future version, as this was meant for use on older Pocket PC's. Luci Studio is only used with Windows PC's with good soundcards nowadays.

Allow profile selection in Luci
Switch this on to allow the user to choose an Input EQ type you predefined here. This allows them to use different EQ settings for internal Microphone, external Microphone of type A, external Microphone of type B , etc.
Profile
Choose a profile or give a profile a name. You can define 5 profiles maximum.
Overall gain
Set the overall gain of this EQ setting.
High – Mid - Low
There are 3 parametric bands available: low, mid and high. You can individually switch On or Off each band.
EQ Enable
Here you can switch On or Off the EQ all together.

Go to adjust the next page or choose menu “File/Save and exit” to save and leave Setup

set up technical guide

I / O

The I/O (Input / Output) tab enables you to setup the audio input and output.

Allow user to change Audio I/O
Enable this to be able to choose the Input and output in the main Luci Studio program.

Audio Input
Choose the input you want to use from the drop-down menu.

Audio Output
Choose the output you want to use from the drop-down menu.

Force mono
Force the output to be mono always even when a stereo stream arrives.

Audio buffer length
Here you can set the buffer-length of the Audio I/O. Usually the default of 50 ms is a good setting, but for a low performance soundcard on Windows Vista or Windows 7 this should be set to 100 to 200 ms.

Sample-rate:
Choose the sample-rate for the input and output you want to use. Set the sample-rate on the Audio I/O card.

ASIO
If you have a soundcard with ASIO driver you can choose it here.

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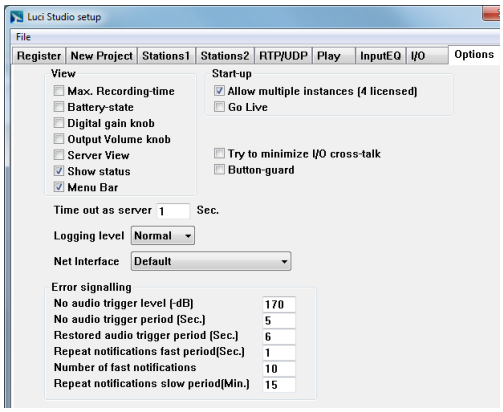
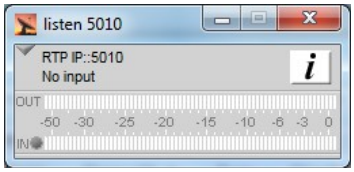
set up technical guide

Options



Server View



The Options tab enables you to switch On the display of several features of the 'Go Live' tool in Luci live two. In addition you can also switch on and off some options concerning the behaviour of Luci Studio.

EXPLANATORY FIELDS AND BUTTONS

View
Switch on and off some features in the 'Go Live' tool.
Max. Recording time
Show the maximum recording time available
Battery-state
Show the battery-state
Digital gain knob
Show a gain knob in order to adjust the gain of the input.
Output Volume knob
Show an output volume knob in order to adjust the output level.
Server View
Show the main Go Live tool in a minimal size. This is useful if you have many different instances running on your PC.
Show Status
Enable the display of a status Window in the main program. Press the I button to show it when you are in Server View.
Menu Bar
Show the standard Windows menu bar or a minimized arrow you can click to show the menu-items.

Allow multiple instances
If you purchased the possibility to use multiple servers on the same PC, you can enable this. You can also see how many you have purchased.
Go Live
Check this and Luci Studio will go on air immediately after starting up

Try to minimize I/O cross-talk
If you experience cross-talk of the return-channel into the signal that is broadcast, tick this. Luci will then try to reduce this. This only works when an external microphone is connected.

Button-guard
If you enable this, Luci Studio will ask you for confirmation when you want to stop the live-stream.

Time out as a server
If you have Luci configured as a server (listen to incoming streams) you use this setting to set the time Luci will keep sending the return stream before it stops and starts listening to incoming streams again.

Logging Level
Here you can set Luci Studio to log what it's doing, for debugging purposes. If you experience any problems, set this to Normal and Luci will write a file called lucilog.txt in the folder c://user/you/appdata/lucilive2/ or in the folder where you started Luci Studio. Send this file to windows@luci.eu and also include live2ini.sup from the same folder so we can see what your settings are.

Net Interface
Choose the network card you want to use

Error signalling
This group of options is for the Multicast Rcv protocol, it enables you to define the failover conditions:

- No audio trigger level: if incoming audio-level from the network is below the specified threshold it is considered as No audio.
- No audio trigger period: the period that the No audio level must be detected before an error conditions is signalled.
- Restored audio trigger period: the period that the audio must be present before the error condition is signalled as solved.
- Repeat notifications fast period: after an error condition Luci will send SNMP traps at a fast rate, you set the rate here.
- Number of fast notifications: the number of fast notifications to send be fore a slow rate is used.
- Repeat notifications slow period: you set the slow notification period here.

Choose menu “File/Save and exit” to save and leave Setup.

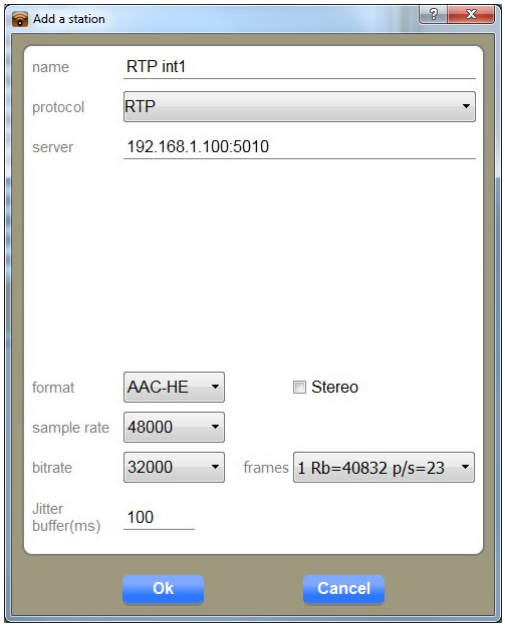
how to

setup and connect Luci Live with Luci Studio

Here is how you setup and use Luci in several network situations.

Both on the internal network.

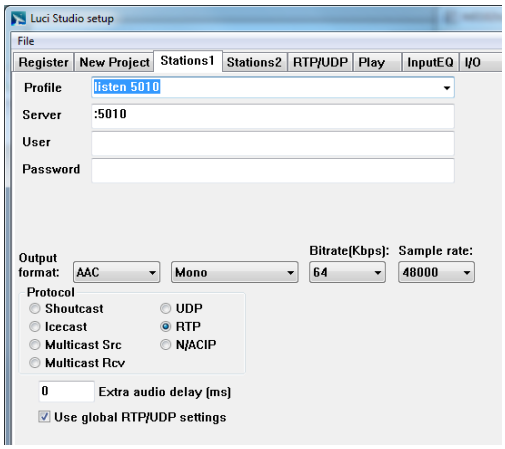
Suppose you have Luci Live running on a computer with ip-address 192.168.1.102 and a computer with Luci Studio on ip-address 192.168.1.100



Set the one that's at 192.168.1.102 , Luci Live, to connect to the other: 192.168.1.100 at port 5010.

If your network uses computer-names you can also use these names instead of the ip-address. So if for instance 192.168.1.100 is a computer called "intcomp1" you can also fill in " intcomp1:5010 "

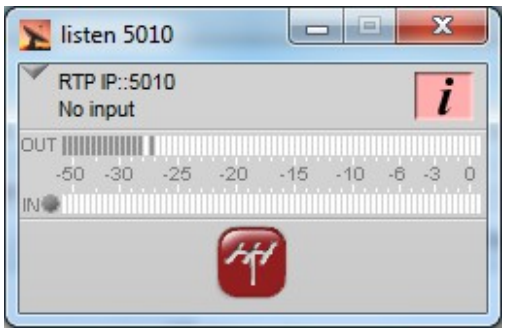
If your network uses a DHCP-server, using the computer-names is also the best way to connect.



Set the one that's at 192.168.1.100 , Luci Studio, to listen for incoming streams at port 5010.

All you have to do is to not fill in the name or address of the server (ie. no server) like on the left.

Notice there is no ip-address or URL filled in. Please don't forget the colon before the port number.
This will cause Luci Studio to listen to incoming streams and not send any stream if there is no stream coming in. If it receives a valid stream, it will start sending back to the Ip-address and port where the stream is coming from. This technique is commonly known as "Symmetric RTP" .



Start Luci Studio in server view mode, click on the antenna.

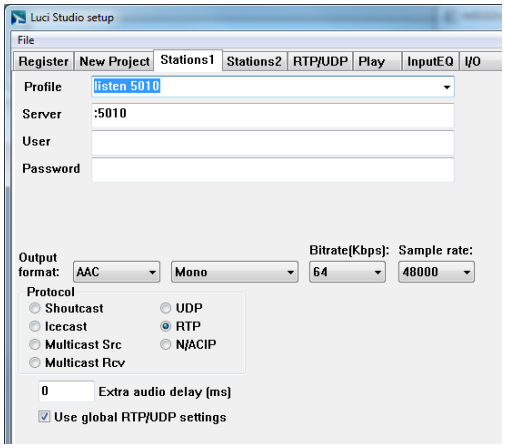
Then start Luci Live, click the MIC, check levels and then click the Antenna.

One side on internal network, the other on the public internet

This is the common case when you have reporters in the field with Luci Live on their Phone or laptop and they want to transmit live to the studio for direct transmission on-air.

The studio will have it's own static ip-address and may even have webservers running in house. Luce Live will then have to be configured for use as a live contributor on the Phone or laptop and Luci Studio as a server in the studio.

First thing you have to do is to make sure that the port for UDP (normally 5010) is forwarded to the computer where your copy of Luci Studio is running on (call it a Live-server). This is the same as what you do when you forward traffic for your webserver on port 80 to your webserver.

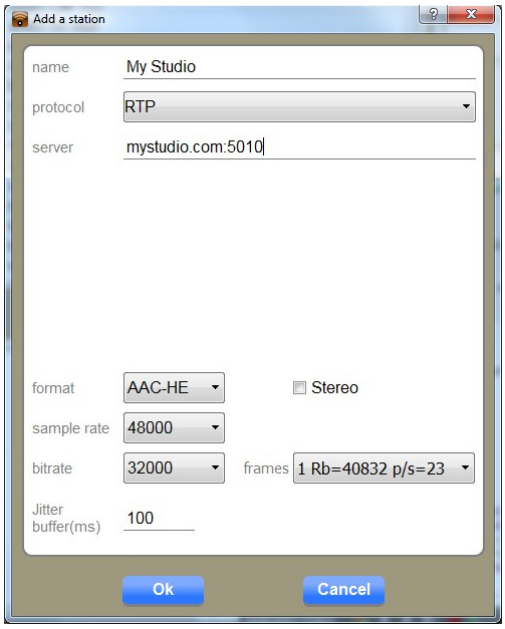


On the Live-server

All you have to do is to not fill in the name or address of the server (ie. no server) like on the left. Just like in the example above where both computers are running on the same network.

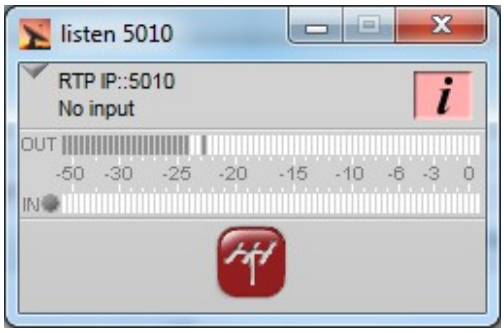
Notice there is no ip-address or URL filled in. Please don't forget the colon before the port number.
This will cause Luci Studio to listen to incoming streams and not send any stream if there is no stream coming in. If it receives a valid stream, it will start sending back to the Ip-address and port where the stream is coming from. This technique is commonly known as "Symmetric RTP" .

You can use this in combination with the Start-up option "Go Live' in the Options-page of setup.This will cause Luci Studio to immediately start listening when you start the program. It is also wise to put a shortcut to Luci Studio in the startup-folder of your PC, so it starts automatically each time the computer restarts.



On Luci Live in the field.

You have to fill in the public ip-address (take it from your router) or URL of the studio. Like on the left.

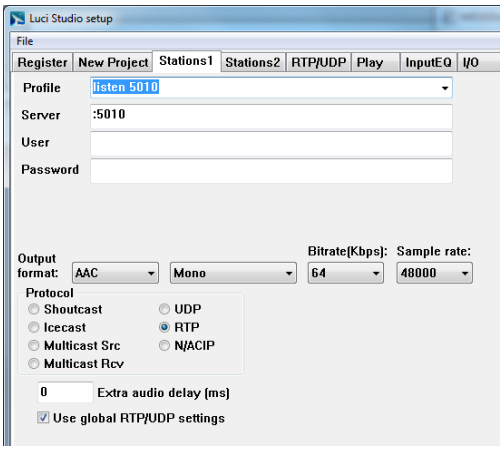


Start Luci Studio in server view mode, click on the antenna.

Then start Luci Live, click the MIC, check levels and then click the Antenna.

how to

setup Luci Studio as a server



Any Luci Studio can act as a mono or stereo server for high quality audio over IP.

To make Luci Studio act as a server, do not fill in any ip-address in the "server"-field at the "Server"-page in Luci Studio Setup. Like you can see on the left. Don't forget to add the colon (:) before the port you want to use. This will cause Luci Studio to listen to incoming streams and not send any stream if there is no stream coming in. If it receives a valid stream, it will start sending back to the Ip-address and port where the stream is coming from. This technique is commonly known as "Symmetric RTP" .

You can use this in combination with the Start-up option "Go Live' in the Options-page of setup.This will cause Luci Studio to immediately start listening when you start the program. It is also wise to put a shortcut to Luci Studio in the startup-folder of your PC, so it starts automatically each time the computer restarts.

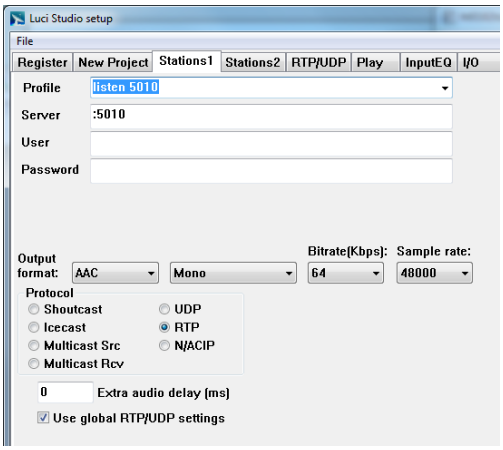
To be able to connect to the server from outside your own network, you must make sure that the port for RTP (normally 5010) is forwarded to the computer where your copy of Luci Studio is running on (call it a Live-server). This is exactly the same as what you do when you forward traffic for your webserver on port 80 to your webserver.

how to

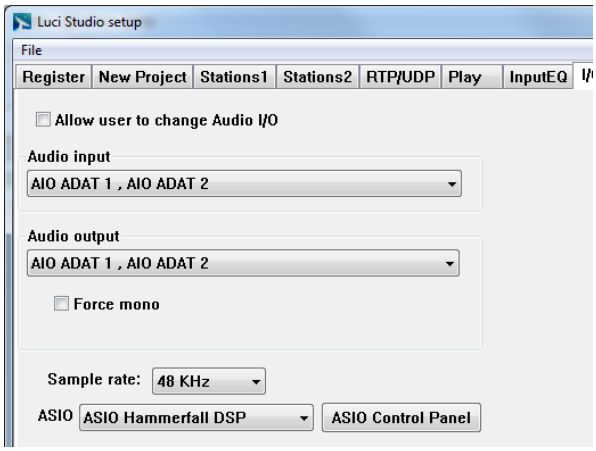
setup Luci Studio as a multi-channel server

It is possible to start Luci Studio several times simultaneously on the same PC with different settings. Then there are multiple so-called "instances" of Luci Studio running which enables you to receive multiple streams simultaneously. To accomplish this do the following.

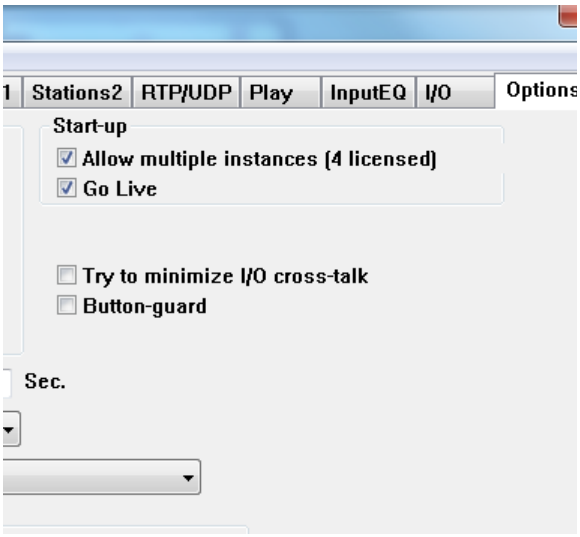
1.Download Luci Studio and install in a folder called C:\LuciMC for instance.



2.Start Luci Studio Setup and create a profile like on the left , using port nr 5010



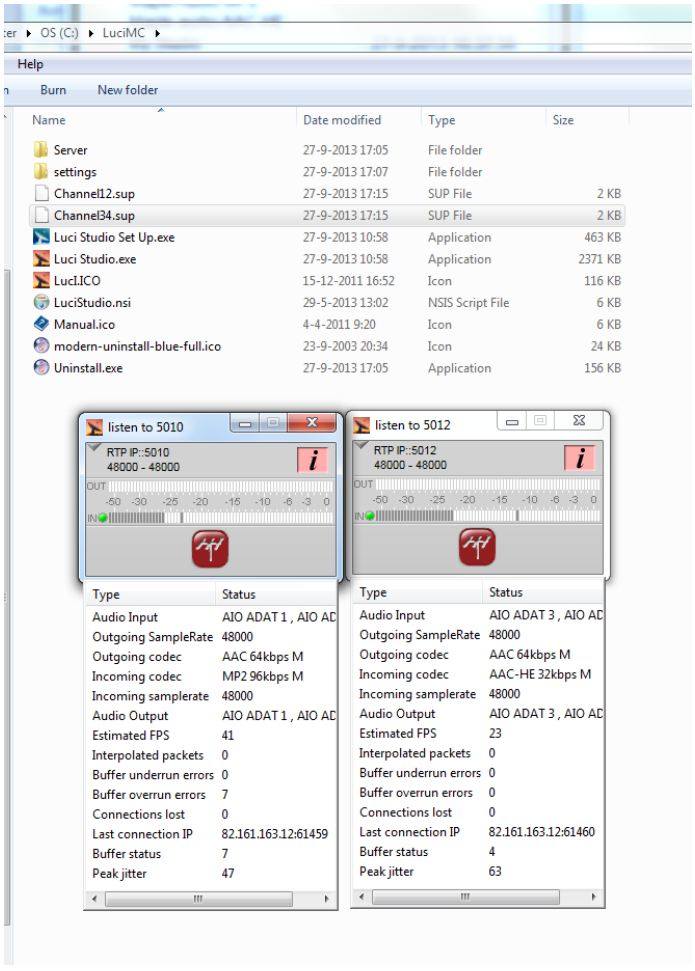
3. Set an Audio Input and Output..



4. Also Enable “Allow multiple instances “ in the Options page. You see there are 4 licensed here, but for the purpose of this manual we use only 2. Each instance can handle a stereo input stream and stereo output stream.

5. Choose menu item File/Save as... and save under filename C:\LuciMC\Channel12.sup for instance.

6. Change the portnr and Audio I/O and save under different filename C:\LuciMC\Channel34.sup for instance.



7.Then Quit Setup and drag each .sup to Luci Studio or double-click on each .sup file

8. Arrange the windows and press the I button to show the status window.

You can also make a start.bat file with this content to start all 2 files with one click:

start "Live1" "Luci Studio".exe Channel12sup

start "Live2" "Luci Studio".exe Channel34.sup

9. To edit each setup file again, drag it to Luci Studio Set up , or right-click on the .sup file and choose “Edit” from the Windows Shell menu.

You now have the ability to receive multiple simultaneous mono or stereo streams that are output at different audio-outputs. Each stream also has separate return-channels.