



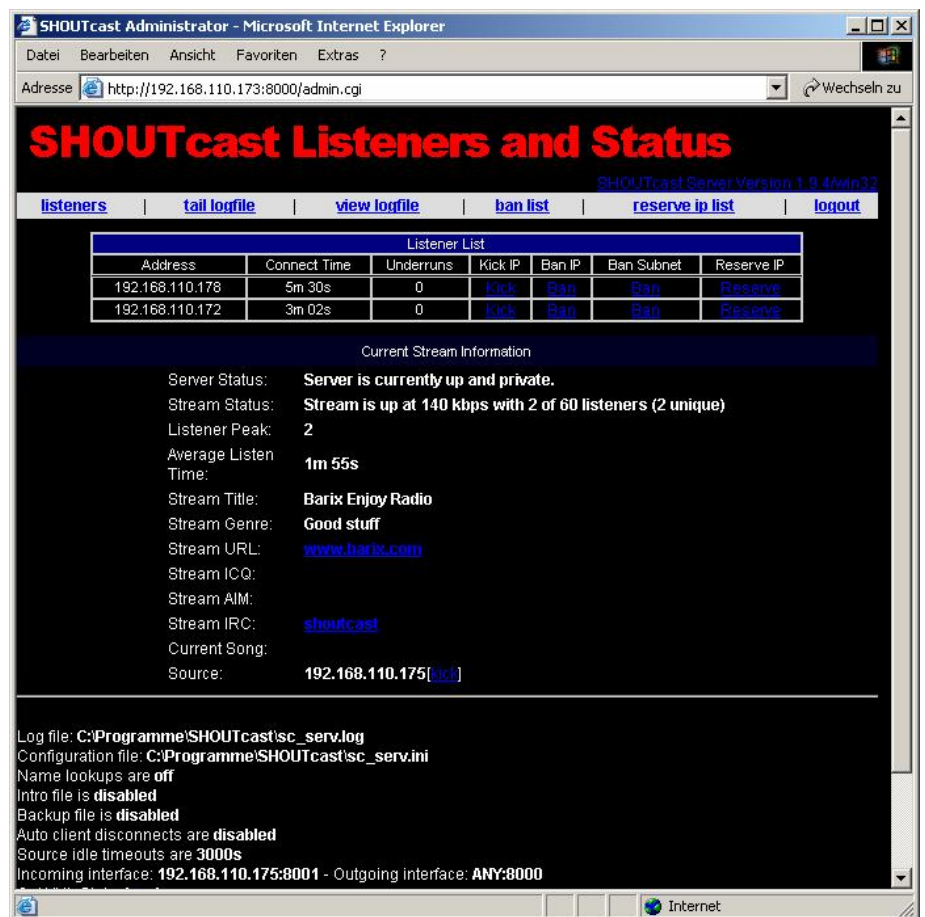
How to install the SHOUTcast server with Barix Instreamer and Barix Exstreamers

The SHOUTcast server is a very nice tool to multiply your audio stream to many listeners (PCs) or Barix Exstreamers. The Barix Instreamer itself supports up to 6 http MP3 audio streams at the same time. If this is not sufficient then SHOUTcast is a perfect solution for you. It is used by many professionals like radio stations, to bring their radio sound on to the Internet. This software is free of charge and can be downloaded from www.shoutcast.com.

The Instreamer firmware 1.14 or newer supports the SHOUTcast authentication and also Icecast authentication, so it is possible to stream directly to the SHOUTcast server and to be a source for the SHOUTcast (relay) server. So SHOUTcast and Icecast are similar solutions.

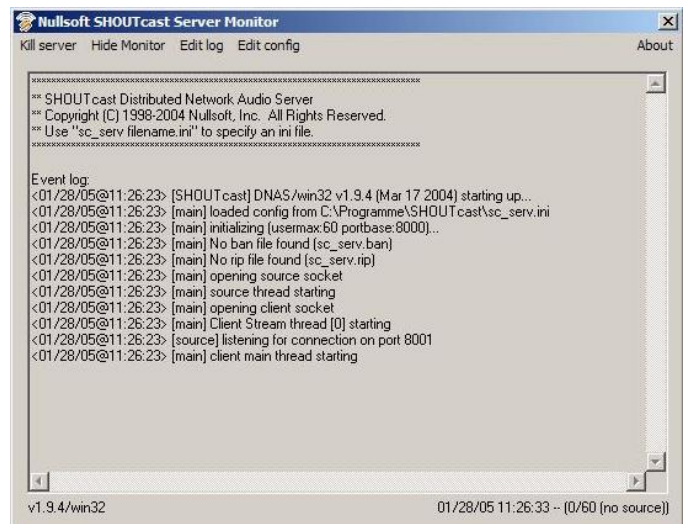
The SHOUTcast software is available for almost all Windows operating systems, Linux, Solaris and Mac.

On the SHOUTcast server configuration you can define how many users should be able to listen to the stream (default is 60). The limit depends on the performance of your system and your network. There is a nice administration GUI to set restrictions or for control purposes.



Software Installation

If you only use the Instreamer as a source for the SHOUTcast server then you need to download (from www.shoutcast.com) and install the SHOUTcast server software only.



Software Configuration

After the download, start the SHOUTcast server and click on “edit config”.

All settings are very well documented in the sv_serv.ini. In this example the configuration you can see on the right side has been used (all comments are removed).

You have to save your changes and close the config file and the application by clicking the “kill server” button. Then restart it.

```
MaxUser=60
Password=changeme
PortBase=8000
LogFile=sc_serv.log
RealTime=3
ScreenLog=1
ShowLastSongs=10
W3CEnable=Yes
W3CLog=sc_w3c.log
SrcIP=any
DestIP=ANY
Yport=80
NameLookups=0
AutoDumpUsers=0
AutoDumpSourceTime=3000
ContentDir=./content
TitleFormat=Stefan's Test Station
PublicServer=never
AllowRelay=Yes
AllowPublicRelay=Yes
MetaInterval=8192
```

Instreamer Configuration

Have a look on the firmware version, version 1.14 or a newer firmware is required! It is also important to define the destination where the Instreamer should stream to. The default port number for the SHOUTcast server is port 8000.

The screenshot shows the Instreamer web interface with the 'STREAMING' tab selected. The page title is 'DEVICE CONFIGURATION' and the logo 'BARIX' is visible. The top navigation bar includes 'SETTINGS', 'DEFAULTS', 'REBOOT', 'UPDATE', and 'HOME'. The 'STREAMING' tab is active, and the 'AUDIO' tab is also visible. The configuration fields are as follows:

- Own Name: Barix Enjoy Radio
- Streaming mode: send always
- Trigger Level: 1000 (only for mode "send on Level")
- Pre Trigger Start: 0 msec
- Post Trigger Play: 1024 msec
- Buffer Underrun Mode (TCP): skip
- Stream Packet Strategy: optimal package
- UDP Tx Source Port: 0
- Sync Port: 0
- Radio Path: /xstream
- icy-url: www.barix.com
- icy-genre: Good stuff
- Shoutcast stream: private

At the bottom, there is a table for 'Stream to' connections:

#	Conn. type	IP #	#	#	#	Port #
1	Shoutcast source	192	.168	.110	.173	:8000
2	Icecast source	In	In	In	In	In

The SHOUTcast server requires a password authentication for all streaming sources.

This password needs to be defined in the SECURITY section of the Instreamer web configuration.

Default password: changeme

The screenshot shows the Instreamer web interface with the 'SECURITY' tab selected. The page title is 'DEVICE CONFIGURATION' and the logo 'BARIX' is visible. The top navigation bar includes 'SETTINGS', 'DEFAULTS', 'REBOOT', 'UPDATE', and 'HOME'. The 'SECURITY' tab is active, and the 'STREAMING' tab is also visible. The configuration fields are as follows:

- Level: Password
- Status: not set
- Telnet/Serial Configuration: [input field]
- Save Configuration: [input field]
- View Configuration: [input field]
- Control/Command: [input field]
- Ice/Shoutcast: [input field] (set)
- Listening: not protected
- SNMP Community RWrite: not protected
- SNMP Community Read: not protected

At the bottom, there are 'Apply' and 'Cancel' buttons.

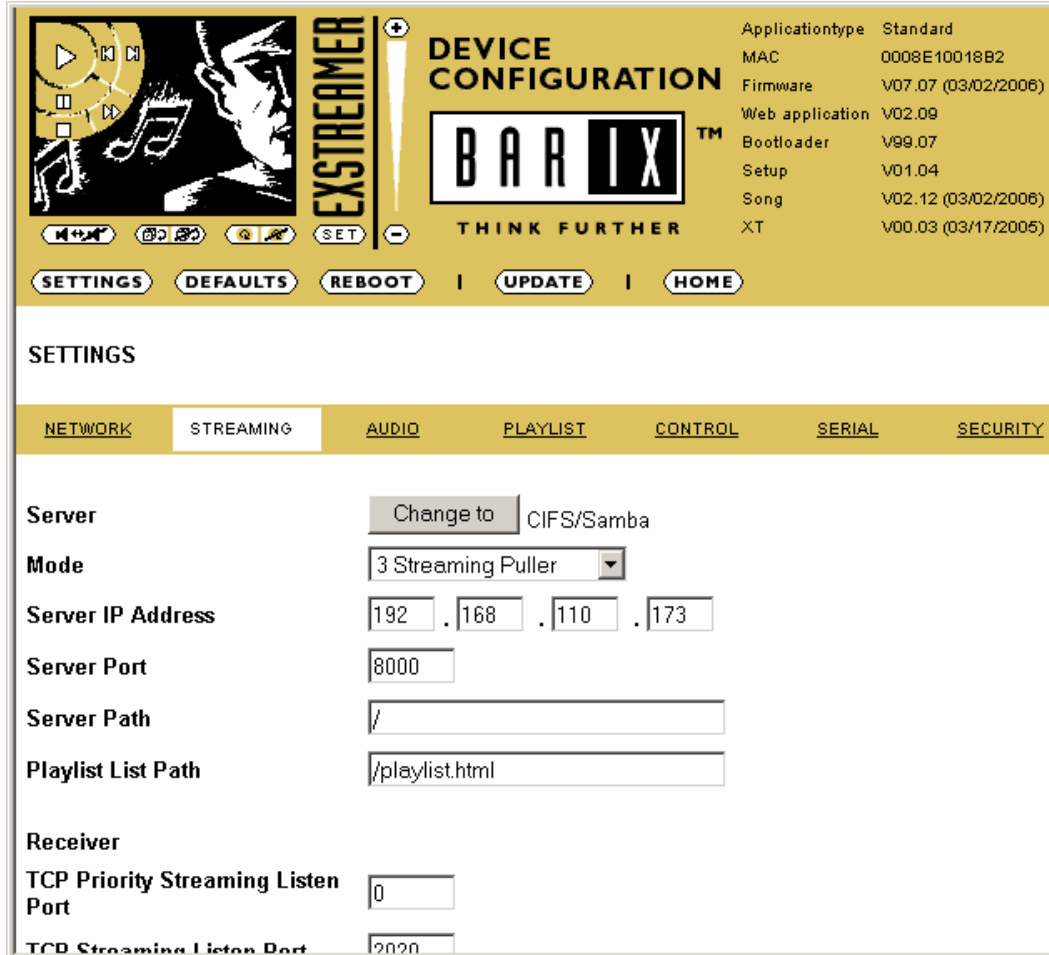
Exstreamer Configuration

How can one listen to the SHOUTcast server with a Barix Exstreamer?

The configuration is very simple, only a few STREAMING settings are necessary.

You have to use: **Mode: 3 Streaming Puller**. The parameters “Server IP Address” and “Server Port” are also needed and must point to the SHOUTcast-server-PC.

That's it, now you can enjoy the Instreamer MP3 audio stream over a SHOUTcast server.



The screenshot displays the 'DEVICE CONFIGURATION' web interface for a Barix Exstreamer. The interface has a yellow header with the 'EXSTREAMER' logo and 'BARIX THINK FURTHER' branding. A navigation menu includes 'SETTINGS', 'DEFAULTS', 'REBOOT', 'UPDATE', and 'HOME'. The 'SETTINGS' section is active, with sub-tabs for 'NETWORK', 'STREAMING', 'AUDIO', 'PLAYLIST', 'CONTROL', 'SERIAL', and 'SECURITY'. The 'STREAMING' tab is selected, showing the following configuration options:

Server	Change to CIFS/Samba
Mode	3 Streaming Puller
Server IP Address	192 . 168 . 110 . 173
Server Port	8000
Server Path	/
Playlist List Path	/playlist.html
Receiver	
TCP Priority Streaming Listen Port	0
TCP Streaming Listen Port	2020

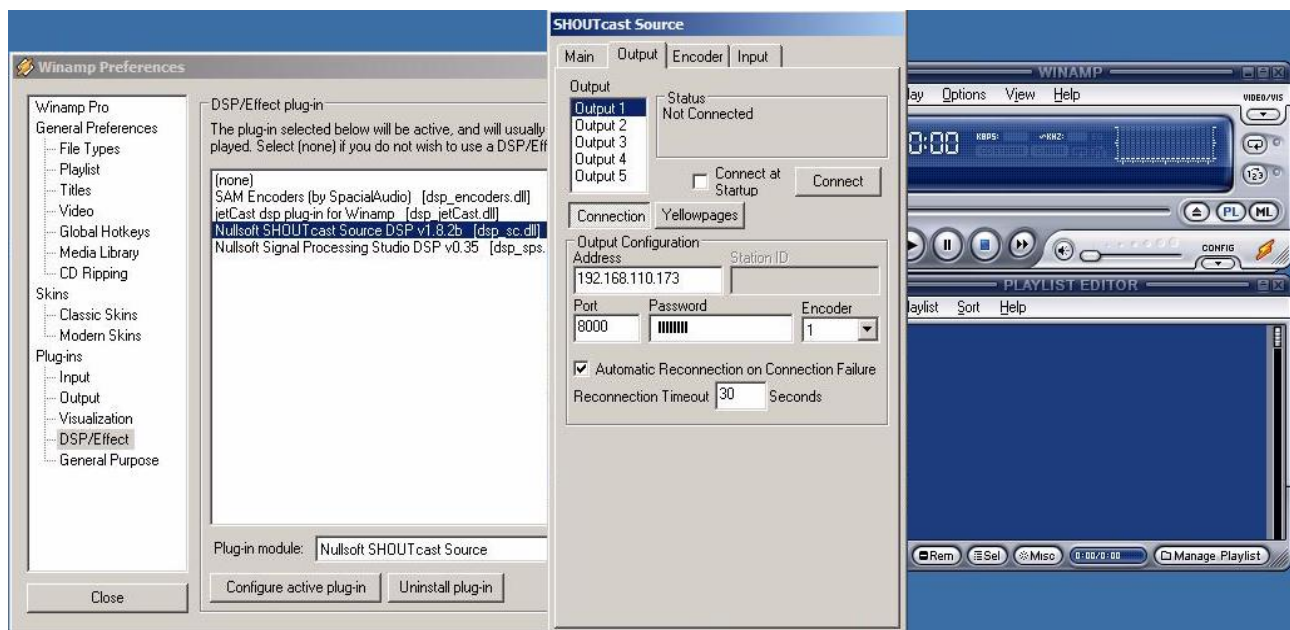
SHOUTcast with the DSP plug-in (DJ-software for Winamp)

The SHOUTcast server can manage different sources. If your SHOUTcast server should also play MP3 or WAV audio files which you have stored on your PC, then you will additionally require Winamp (www.winamp.com) and the SHOUTcast DSP plug-in (www.shoutcast.com). The SHOUTcast DSP is a Winamp plug-in and must be installed in the Winamp program folder.

The DSP plug-in can run on the same PC on which the SHOUTcast server is running, although this is not compulsory.

The SHOUTcast DSP plug-in is not needed if you only use an Instreamer as source. You only need the SHOUTcast DSP plug-in if you want to create MP3 / WAV playlists for your SHOUTcast server.

After the installation start Winamp and go to “OPTIONS” – “Preferences” – “DSP/Effect” and click on “Nullsoft SHOUTcast DSP”. The configuration and screen of SHOUTcast source will pop up. Close the “Preferences” so that the configuration window will remain open.



Go to “Output” – “Connection” – “Address” and define the IP address of the PC where the SHOUTcast server is installed. The “Port” and the “Password” must also fit the settings in the sr_serv.ini . Port 8000 is default for outgoing streams the next port is automatically used for incoming streams from the server (8001 in this case). Although you have to define port 8000 for the source , in the network it will use port 8001 for the source.

The “Encoder” settings can optionally be changed if needed.

Start to stream to the server by clicking the “Connect” button.

Then you can choose your favourite playlists, MP3 files or radio streams in the Winamp Playlist Editor. Click on the play icon to start playing.

Ready!! Now you can connect your clients / Exstreamers.

