

NCH Software

BroadWave Audio Streaming Server

This user guide has been created for use with
BroadWave Audio Streaming Server Version 2.xx

Technical Support

If you have difficulties using BroadWave Audio Streaming Server please read the applicable topic before requesting support. If your problem is not covered in this user guide please view the up-to-date BroadWave Audio Streaming Server Online Technical Support at www.nch.com.au/streaming/support.html

If that does not solve your problem, you can contact us using the technical support contacts listed on that page.

Software Suggestions

If you have any suggestions for improvements to BroadWave Audio Streaming Server, or suggestions for other related software that you might need, please post it on our Suggestions page at www.nch.com.au/suggestions/index.html.

Many of our software projects have been undertaken after suggestions from users like you. You get a free upgrade if we follow your suggestion.

BroadWave Audio Streaming Server

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Other Links

Options ~ Web Routing - URL <http://www.nch.com.au/kb/10233.html>

Introduction

Thank you for installing BroadWave.

BroadWave is an audio streaming server. It is designed to continuously broadcast any audio connected to the sound input on the PC. It will also stream single audio files and playlists. BroadWave supports wav, mp3, wma, aiff and many other formats.

BroadWave handles the audio stream compression, player format negotiation, bandwidth adjustment and serving over the Internet. Listeners do not need to install any special software to listen to a BroadWave webcast. Listeners simply click on the BroadWave link that you provide on your website. BroadWave streams will play directly from the default web browser on any modern Windows, Mac or Linux computer.

This software has two modes. A free version which contains all features except access to the NCH Flash Player. This is a professional feature only, and you will need to buy a license in order to use it.

If you do not want to have an advertising link you can buy the [professional edition of BroadWave](#)

. The professional version does not require any advertising links, allows you to customize the play banner and allows you to use the NCH Flash Player.

Typical Applications

- Radio station audio streaming
- Webcasting press conferences
- Streaming the audio from performances (e.g., live bands)
- Remote monitoring applications

Features

- Plays automatically in almost all popular browsers including Internet Explorer, Firefox, Safari and more.
- Up to 8 different live streams can be served from the single PC by installing additional sound devices (eg. USB sound).
- Unlimited number of 'static' recordings can be served.
- Many simultaneous connections can be served from a single PC.
- Automatically downsamples audio for lower bitrate listens on slow dial-up connections.
- Static recordings can be loaded in a number of formats including wav, mp3, aiff, au, wma, aac and over 20 other formats.

System Requirements

- Windows 2000/XP/2003/Vista/7/8/10
- [For streaming input] At least one free sound input on the PC

Installation Guide

To install BroadWave you need to do the following.

- Run the install file (bwsetup.exe) on your computer.
- If you are running a firewall, open TCP/IP port (default 88).
- To allow 'public' internet access you might need to ask your network administrator to provide you your known public IP and set the router to route connections to the computer running BroadWave. Refer to [Making your Computer Accessible from the Public Internet](#) for more information on what router configuration is required.
- Click on the Connect tool bar item from the main window of BroadWave to see the links to all your streams and audio files.
- Advise your viewers of the links.

Using BroadWave

Connect Button

Clicking on the connect button generates a webpage on your local machine that contains all the URLs to your streams and audio files. These are the URLs you use on your website.

Next to each stream you have setup in BroadWave, you will see a link that you provide on your website. Visitors to your website will use this link to access each of your different streams. BroadWave will automatically select the best streaming format based on your visitor's web browser and computer.

Advanced Use Only

If you do not want BroadWave to automatically select the type of stream the user will receive, then you can provide links to specific stream formats. To do so, replace the .m3u file type in the links provided with the stream type you wish the user to receive. Supported stream types are .asx, .m3u, and .pls. For example, if the automatic link is:
`http://yourweb.com/broadwave.m3u?src=1&rate=1`, and you wish to specifically deliver .asx streams, then you can change the link to `http://yourweb.com/broadwave.asx?src=1&rate=1`. Please be aware that not all of these links will work on all computers - this is an advanced option only. In most cases you will be better off allowing BroadWave to select the stream for you.

There are three main types of stream audio here:

- **Live Stream:** This is the audio streaming from your microphone. If BroadWave is running (even in the background) this audio is "live" and anyone can listen to it.
- **Playlist:** This will stream all your audio files in a looping playlist, playing one file after the other.
- **Audio File:** These are the individual audio files that you added to BroadWave, each URL will stream that audio file once.

Options

The options are where you adjust the various settings of BroadWave:

- **Web Access:** see [Options ~ Access](#)
- **General:** see [Options ~ General](#)
- **Live:** see [Options ~ Live](#)
- **Audio Files:** see [Options ~ Audio Files](#)
- **Other:** see [Options ~ Other](#)

Recording to disk

Each stream has the ability to record your live input stream to disk in case you want to save it for later. To begin writing a stream to disk, click on the record button which is the button with a grey circle on the right side of each volume meter.

Clicking or pressing the spacebar will begin recording your stream to disk. Click it again to turn it off.

You can change the location of where the audio file is recorded in the [Live Options](#).

Current Connections

The status bar shows the number of people currently listening to your live stream. This number is only relevant to your live stream, not your audio files.

Log window

This is where you can see some important events. Such as starting the server, user starting to stream and more.

Keyboard Shortcuts

The following list shows shortcuts for the most common tasks used in BroadWave:

- Connect Ctrl+C
- Open Connection Report Ctrl+R
- Open Stream Devices ListCtrl+S
- Open List of Audio Files Ctrl+A
- Open Program Options Ctrl+O
- Open Program Help F1
- Close BroadWave to the TrayAlt+F4
- Start/Stop recording current selected stream to disk.Space

NCH Software Suite

This is a useful way to browse all the software available from NCH Software

You can see a set of products by type like Audio, Video and so on and view the product. From there you can try out the product and it will download and install it for you to trial. If you already have the product installed then you can click "Run It Now" and the program will be launched for you.

There is also a list of features for products in the category. Click on a feature, such as "Edit a Video File", to install a product with that ability.

Search

Search our website for products matching any keywords you type.

See more of our software

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3. This software, and all accompanying files, data and materials, are distributed "as is" and with no warranties of any kind, whether express or implied except as required by law. If you intend to rely on this software for critical purposes you must test it fully prior to using it, install redundant systems and assume any risk.
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6. You may copy or distribute the installation file of this software in its complete unaltered form but you may not, under any circumstances, distribute any software registration code for any of our programs without written permission. In the event that you do distribute a software registration code, you will be liable to pay the full purchase price for each location where the unauthorized use occurs.
7. Use of statistics collected by the software is subject to the NCH Software Privacy Statement which allows automatic anonymized collection of usage statistics in limited circumstances.
8. The contract arising out of this agreement is governed by the laws and courts of the Australian Capital Territory.

Screen References - Stream Input Settings

Stream name:

Enter the name of the stream here. For example, if you are streaming a radio station, enter the name of the station here.

Sound in device:

Select the sound input device. You can have more than one device in a PC. For example, to support multiple stream inputs, you can connect multiple USB devices.

Screen References - Zulu Stream Input Settings

Stream name:

Enter the name of the Zulu stream here.

Screen References - Connection Report

Start Time:

Time of day this entry starts.

End Time:

Time of day this entry ends.

Use current time as End Time

Tick this option if you want to use current datetime as the endtime.

IP Address

The IP address from which user connected to BroadWave.

Connection Times

Number of connection during the selected time range.

Number of unique IP address

The number of unique IP addresses connected to BroadWave during the selected time range.

Search

List all the unique IPs during the selected period.

Screen References - Options ~ Web Access

Browser Access

For more information on setting up Browser Access, see this Knowledge Base article:
www.nch.com.au/kb/10233.html

Screen References - Options ~ General

Startup

Run when computer starts

Tick this option if you want this program to run automatically when the computer starts (or you logon).

Connect Page

The BroadWave Connect Page contains links which can be used on your own web site. This option allows you to choose whether the links are displayed as a local or a public address.

Audio Compression

Minimum speed for dial-up (kbit/s):

Enter the lowest typical connection speed (in kbps) you expect for customers using dial-up connections. The default is 24kbps, which is reasonable.

Minimum speed for broadband (kbit/s):

Enter the lowest typical connection speed (in kbps) you expect for customers using broadband connections. The default is 56kbps, which is good quality. If you want higher speeds you can increase this to 96 kbps.

Screen References - Options ~ Live

Live Audio Streams

BroadWave lets you stream audio directly from the audio input of the sound device or from Zulu Software. By default BroadWave uses your default sound-in socket on your computer. You can, however, add up to 8 direct streaming input sources if you install more sound cards or USB based audio input devices.

Each 'stream' has its own name, device and link(s). To find out what the link(s) are for a stream click the Connect button from the main window of BroadWave.

You can also choose Zulu as the source but can have only one Zulu source. To do this, click the "Add Zulu Stream" button from live options dialog. In Zulu, you need to choose streaming to BroadWave from Zulu Recording/Streaming option dialog and start streaming by clicking the recording/streaming button in Zulu console. The minimum Zulu version for supporting this feature is V2.39. Zulu and BroadWave must be installed at same host.

Record output Folder

This is the place where you set the location of where the audio file will save if you choose to record one of your streams to disk.

For more info see [Using BroadWave](#)

Screen References - Options ~ Audio Files

Audio Files

BroadWave can also generate links that stream your audio files (eg. wav or mp3 files). BroadWave automatically converts the format and bandwidth for different players, browsers and connection speeds.

Click on the Add button and browse to the files you want to add, then click OK. To see the link(s) for the files please click Connect from the main screen of BroadWave.

Screen References - Options ~ Other

Windows Media Player (Special Options)

Windows Media Player allows you to have a banner. If you have purchased the professional version of the software you can set this to be your own banner.

Click on the Add button and browse to the files you want to add then click OK. To see how you link the files please click Connect from the main screen of BroadWave.