



# Linn DS players, Linn DSI intergrated DS players

Rev 4.01

DIGITAL STREAM PLAYERS



*THE FUTURE OF MUSIC*

Software information and technical help files

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# Why the Klimax DS is the best way to play CDs



**This document explains why you get a better listening experience listening to your CD music collection with your DS player.**

## CD Playback

The function of a CD playback can be split into two basic elements

1. Reading the data from the disk
2. Converting the data to audio

## Reading the data from the disk

The data on the disk is digital. Therefore the retrieval process can be perfect (considering that when you load software from a data CD it would not work if there were errors). In a traditional CD player the data is read at the same time as the audio is being reproduced. There is no technical benefit in this time linkage. In the Klimax DS system the data is read to computer memory (hard-drive), this process can be verified as error-free by the use of checksums. The transfer of data from the hard-drive to the Klimax DS is over Ethernet using TCP-IP. This protocol ensures the integrity of the data delivered to the DACs. Extensive end-to-end testing has verified that the data at the Klimax DS is precisely the same data as on the original CD.

## Converting the data to audio

Having ensured that the data is correct, the element that governs the quality of the audio is the digital to analog converter (DAC). There are a number of factors that influence the DAC performance:

- Jitter
- Up-sampling and Quality of the DAC chip
- Topology of circuit

## Jitter

Klimax DS has a similar clock architecture to Linn's CD players. The audio clock is generated by an ultra low jitter oscillator located close to the DAC chips. This clock is used for the DACs and also provides the master timing reference to all the digital path.

## Up-sampling and Quality of the DAC chip

At Linn Products there is an on-going research project in which DAC chips are evaluated. For each candidate DAC chip a custom evaluation board is developed. These are subject to a suite of objective tests that we have developed for DAC assessment. The final arbitration for all these trial systems is the listening test. On the basis of this research the Wolfson WM8741 has been selected for the Klimax DS.

In the Klimax DS we are using a custom up-sampling system that has been developed as a part of Linn's DAC evaluation project. There are three advantages to this approach:

1. Choice of custom filter shape – again extensive listening tests were used.
2. We have far greater processing power available for up-sampling within an FPGA than is available from the built-in up-samplers in the DAC chips.
3. Electrical noise from the up-sampling process is located in the digital circuit (not in the sensitive analog part).

For more details on this subject you can read the [Up-Sampling article](#).

## Topology of circuit

The design and layout of the DAC circuit has a considerable impact on its performance. An area where the Klimax DS improves on previous Linn designs is the reduction of ground currents. This area is often overlooked by engineers who assume zero impedance ground. In reality there is always some resistance and inductance in all ground connections. It follows that any ground current (such as return current from digital signals) will inevitably cause a noise potential. This is particularly damaging if the noise source is coherent with the audio signal – as is the case with the serial audio data signal.

# Software programs used with the Linn DS (Windows)

## Recommended Programmes

### Illustrate dBpoweramp CD ripper

dBpoweramp is the highest quality (in both sound/ripping as well as usability) ripping program out there. This is now ready and dBpoweramp comes with flac out of the box and as the default codec. dBpoweramp also has exceptional metadata and album art support which it aggregates from a number of commercial providers.

It is discounted at \$25 USD for Linn DS users downloaded from

<http://req.dbpoweramp.com/linn.aspx>

Premium metadata access is supplied at a yearly access license of \$5 USD per year.

### Linn Konfig

This is a small program used to configure the Linn DS system. It is downloaded from [www.linn.co.uk/ds\\_software](http://www.linn.co.uk/ds_software) and has a diagnosis program to check your IP network as well as checking for software updates etc. Once the system is installed this is only required for diagnosis and updating.

### KINSKY DESKTOP

The KINSKY DESKTOP is the DS control program which runs on your Windows PC, LINUX PC, MAC or Tablet

This program is used for selecting the music, making a playlist and play, pause, stop etc. It can also control the volume if used with a current model Linn pre amp or if using the variable volume on the Sneaky or Majik DS.

Download from [www.linn.co.uk/ds\\_software](http://www.linn.co.uk/ds_software)

There are a number of other programs that can be used instead if the KINSKY DESKTOP such as Songbook (for Macs) and any pump controller program such as the Nokia, Songbook for iTouch/iPhone controller program.

### TwonkyVision Media server

TwonkyVision is a recommended pump media server program that puts the music onto your network. This program scans your music library and indexes it by artist, genre etc so you find it on your media controller.

TwonkyVision comes pre installed on the recommended Q-Nap NAS unit and it can be easily installed on several other NAS drives including Netgear. Some other NAS drives are not so friendly so beware.

TwonkyVision can also be installed on your computer drive, so if you don't want to buy a separate NAS you do not have to.

TwonkyVision can be downloaded from [www.twonkyvision.com](http://www.twonkyvision.com) and after a 30day trial will cost 30 Euros. It is free with the Q-Nap.

### Asset UPnP Media Server

Asset UPnP is a recommended pump media server program that puts the music onto your network. This program scans your music library and indexes it by artist, genre etc so you find it on your media controller. Asset comes pre installed on the RIPNAS NAS unit and it can be easily installed on several other Window Home Server NAS drives

Asset UPnP can also be installed on your computer drive, so if you don't want to buy a separate NAS you do not have to.

Asset UPnP can be downloaded from

<http://www.dbpoweramp.com/asset-upnp-dlna.htm>

### Audioshell

Audioshell is an invisible program that allows you to edit the music metadata. You find the song you wish to edit or view in your music library. Right click on it and click Properties. Once Audioshell is installed you will see 2 extra tabs "Audioshell Information and "Audioshell Tag Editor"

### MediaMonkey

MediaMonkey is a free program that can be used for managing your music library. It can convert I-Tunes files to FLAC, find cover art, fix metadata plus many other useful tasks. Download from [www.mediamonkey.com](http://www.mediamonkey.com)

### Music IP Mixer

Music IP Mixer is a program for making playlists. Currently the Linn GUI does not save playlists, although this will probably change shortly.

Music IP will analyze your music library and once this is done you choose a song you like and hit the Mix button.

The free version will select up to 75 similar songs and the licensed version will do hundreds. Once you have the playlist you save it into your music file along with all your songs. I would recommend making a folder labeled Playlists somewhere that Twonky will scan.

Download from [www.musicip.com](http://www.musicip.com)

## Other useful Programmes

# Computer Requirements for a DS

- A high speed internet connection ( not dial up)is required setup of the Linn DS system and getting metadata while ripping. This is not required for playback.
- An Ethernet network with a switch capable of at least 100Mb/s
- A computer with at least 512Mb RAM
- A good CD drive for ripping your CDs
- A CAT5 data point near the Hi-fi system

## Websites of interest.

Linn UK Website. For Linn DS software etc Go to <http://www.linn.co.uk/> Support - Downloads - DS Software

Linn Docs site. For documents etc on DS [http://docs.linn.co.uk/wiki/index.php/Main\\_Page](http://docs.linn.co.uk/wiki/index.php/Main_Page)

Linn Forums site. This is a huge site with thousands of questions and answers from Linn users and Linn staff <http://forums.linn.co.uk/bb/>

Linn Open Source Software site. For all sorts of info and software for DS <http://oss.linn.co.uk/trac/wiki/WikiStart>

### Websites offering hi-definition audio downloads

<http://www.linnrecords.com>

<http://www.burningshed.com>

<http://www.boomkat.com>

<http://eagles.shop.musictoday.com>

<http://www.gimell.com>

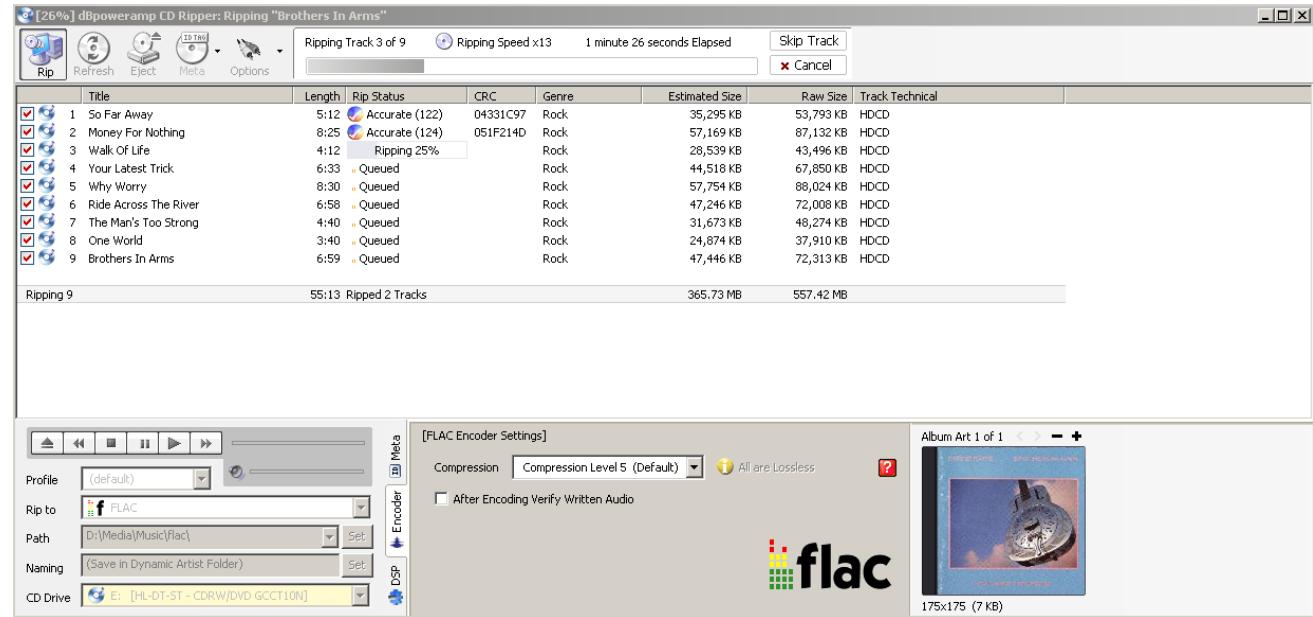
<http://www.hdtracks.com>

<http://www.musicgiants.com>

<http://dl.nin.com/theslip/signup>

<http://www.passionato.com>

# dBpoweramp (CD ripping software)



The PC requirements for dBpoweramp operation are listed below. Please ensure your PC meets these requirements before proceeding to 1.2.

- Windows 98, 2000, XP, Windows Vista (64 bit versions included). Linux supported through Wine. Fully Unicode compatible
- Always on internet connection for metadata retrieval
- Ensure your target PC is connected to the Internet.
- Either run the downloaded file or insert the enclosed CD into a CD/DVD drive on the target PC and it will auto run and install all required software.
- Follow the prompts and key in any required data.

Setup a folder called 'Local Audio' will be created in C:\ and will be the default audio file storage location. After the CD rip/copy, these files can be copied to your NAS or PC directory that is used by the UPnP Media Server.

You will find dBpoweramp on the Linn UK Website.

Go to [www.linn.co.uk](http://www.linn.co.uk) then "Support" then "Downloads" then "DS Software" and at the bottom of the page you will find "dBpoweramp"

1. Run the dBpoweramp CD Ripper software
2. Insert the CD in to your PC
3. Press the RIP button in the top left Menu bar and leave the software to rip the CD

# Kinsky Desktop (DAVAAR family)

This is your library path. That is, the route to your library listing in the left window. You this will allow you to go back multiple levels to select different Music listing easily within the Music library

Track information (this can be enabled/disabled)

Track time elapsed/remaining

Search forward

Last Track & add track/Album to end of playlist

PLAY / PAUSE & play dragged track/Album now

Next Track & Play track/Album next

Volume DOWN key

Volume value and MUTE

Volume UP key

This will take you library listing back one step

Search back

Kompact view

Source selection: Playlist  
Radio  
Songcast (party mode)  
or local preamplifier input

**MUSIC LIBRARY WINDOW**  
(This is a list of the Music available to play)

**PLAYLIST WINDOW** (This is the Music that the DS will play)

Room selection & STANDBY option

This will change the library listing to letter groups or no groups

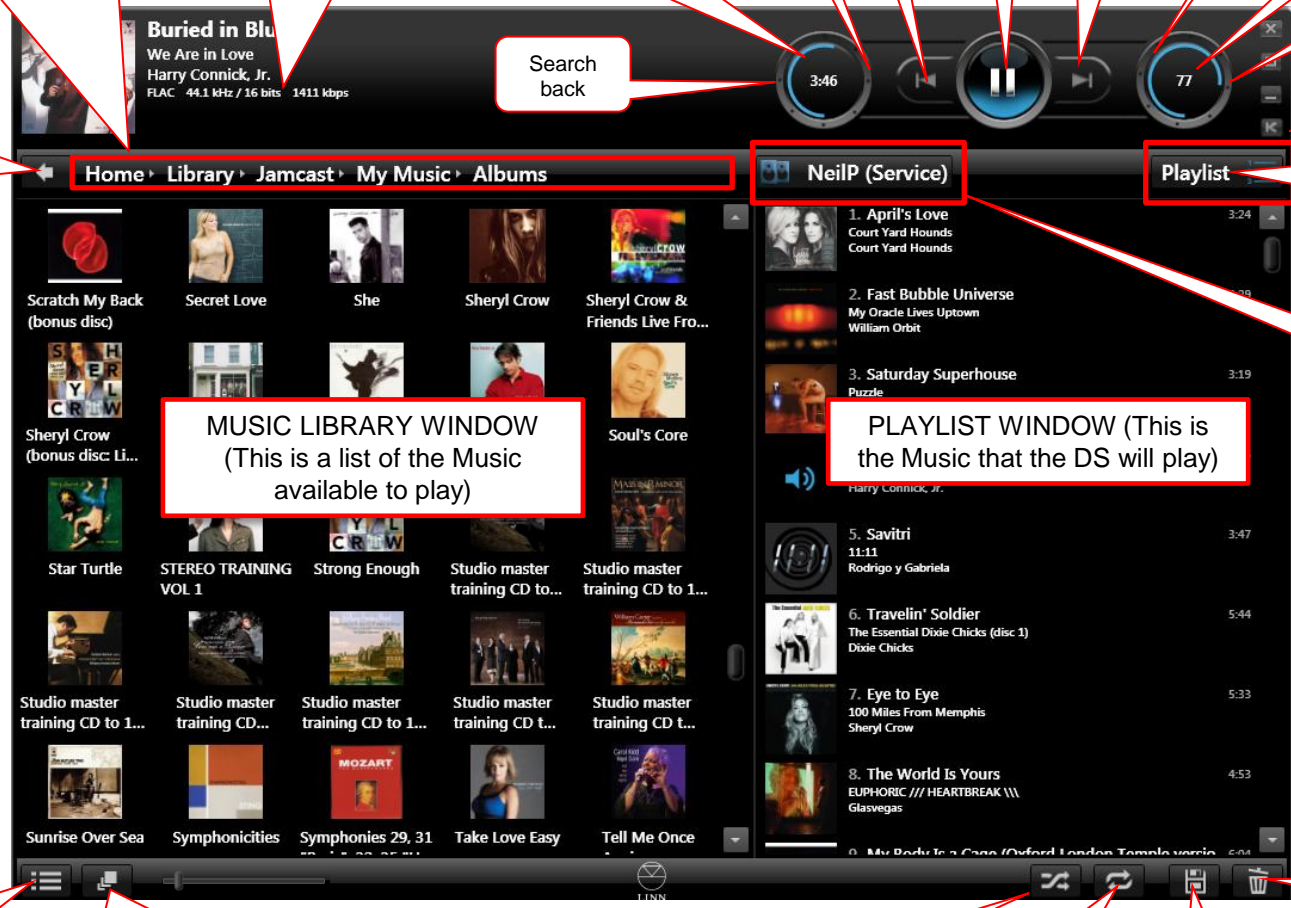
Change left hand window (Album, Artist and Cover art and picture size)

Play the tracks in a random order

Repeat the whole playlist until disabled

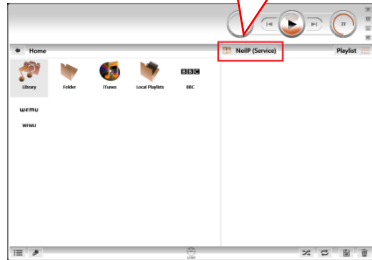
Save your Playlist

Clear all Music in the Playlist window

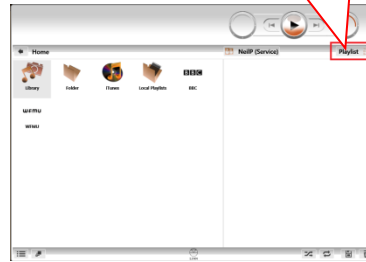


# KINSKY Desktop DAVAAR family (colours inverted for clarity) 1/3

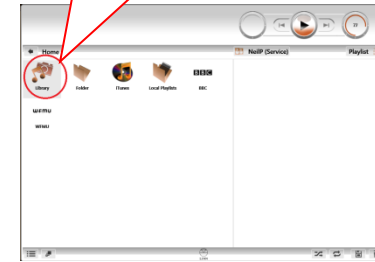
1. Open Kinsky Desktop on your Room name



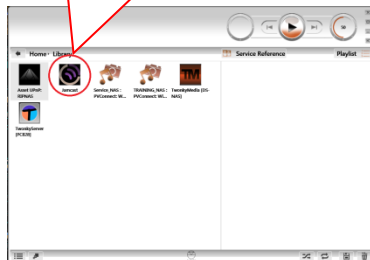
2 Select the DS source name



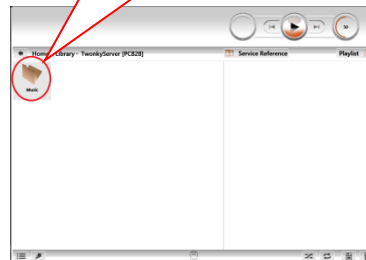
3. Click on the library icon. This will show you all of your Music sources



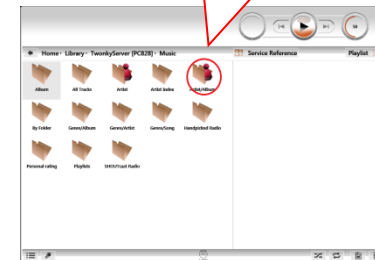
4. Click on a Music source / library



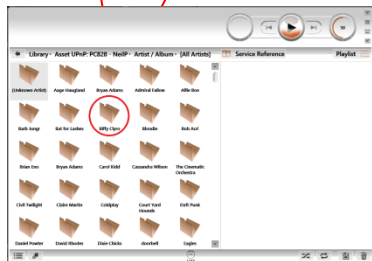
5. Click on the "Music" folder



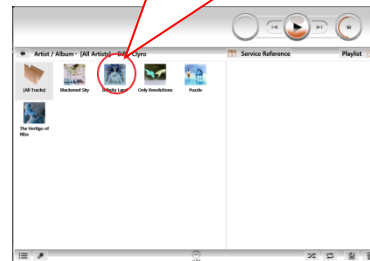
6. Select a Music listing For example, "Artist/Album"



7. Select the Artist you wish to listen to



8. Select the Album you wish to listen to



# KINSKY Desktop CARA family (To control your DS from a PC) 2/3

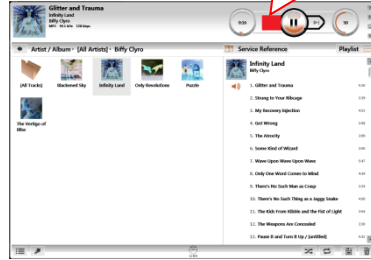
9a. Drag the Album to the Play button, the Linn DS will play this album



9b. or Drag the Album to the SKIP+ symbol to play next

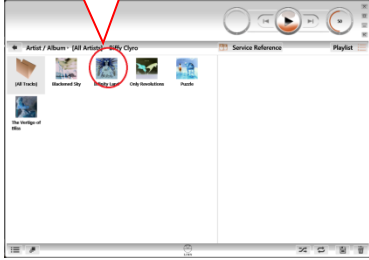


9c. or Drag the Album to the SKIP- symbol to add to the end of the existing playlist



To select a single track ..

To play a single track, click on the Album



Then drag the track to PLAY , Skip+ or Skip- buttons as per point 9a,b or c



To control volume and mute control

Track time  
Press button to toggle with track time remaining

Search forward

Search back

Last Track & add track/Album to end of playlist

PLAY / PAUSE & play dragged track/Album now

Next Track & Play track/Album next

Volume DOWN key

Volume UP key

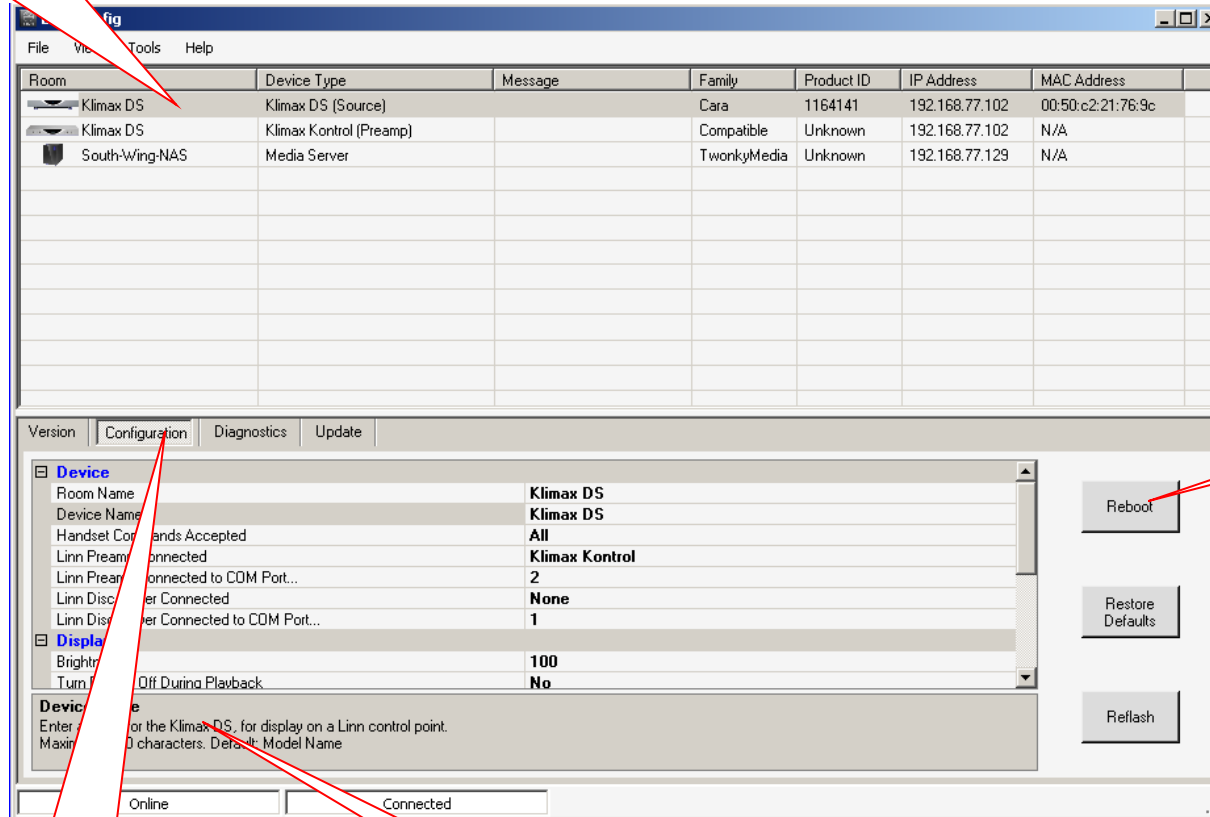
Volume number, in this case volume =50 press button for MUTE /UNMUTE key



# Konfig CARA/DAVAAR (for setting up your DS).

“ KONFIG” can be found in your Programs under “Linn”.

Click on the DS you want to program



Reboot after changed

Click on the Tab you require.  
Normally advanced Config to  
set up volume controls etc

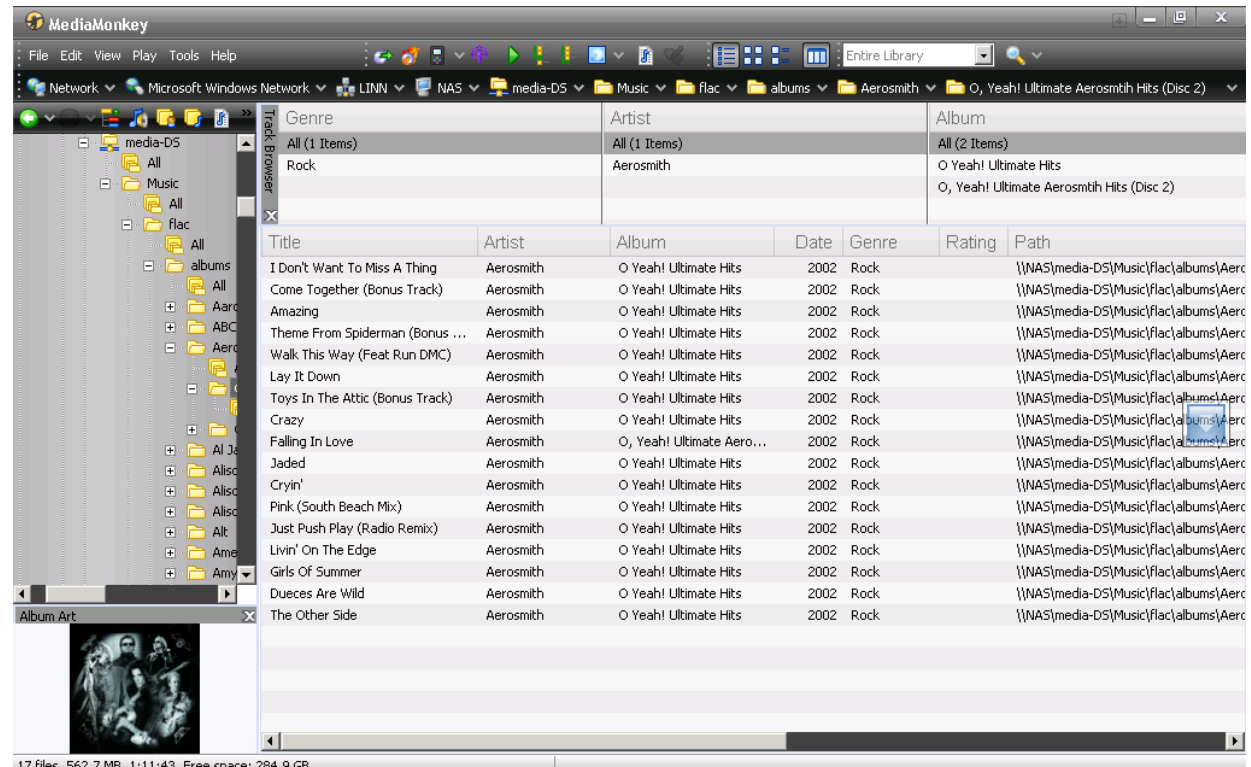
Help window.  
This is basically the instruction  
manual.

# Media Monkey

(download from [www.mediamonkey.com](http://www.mediamonkey.com))

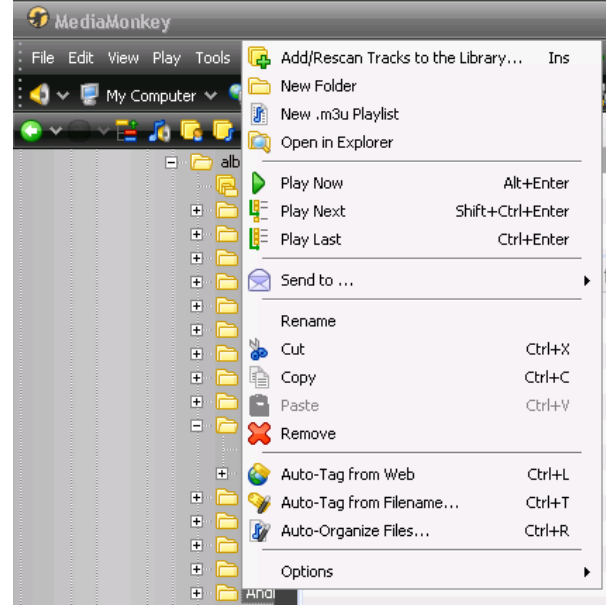
**To Fix Tags & Cover Art** There is a help Tab on the top menu bar with full instructions.

1. Open Media Monkey.
2. On LH side find Music Library. It is likely to be in My Documents if using you computer as a server or if you are using a NAS you will find it as Z or similar if the NAS has been mapped. If not it will be in "Network"



3. Double Click on the Artist
4. Right Click on the Album

5 Left Click on "Auto Tag from Web"



6 Auto Tab screen will appear and MediaMonkey will search for info.

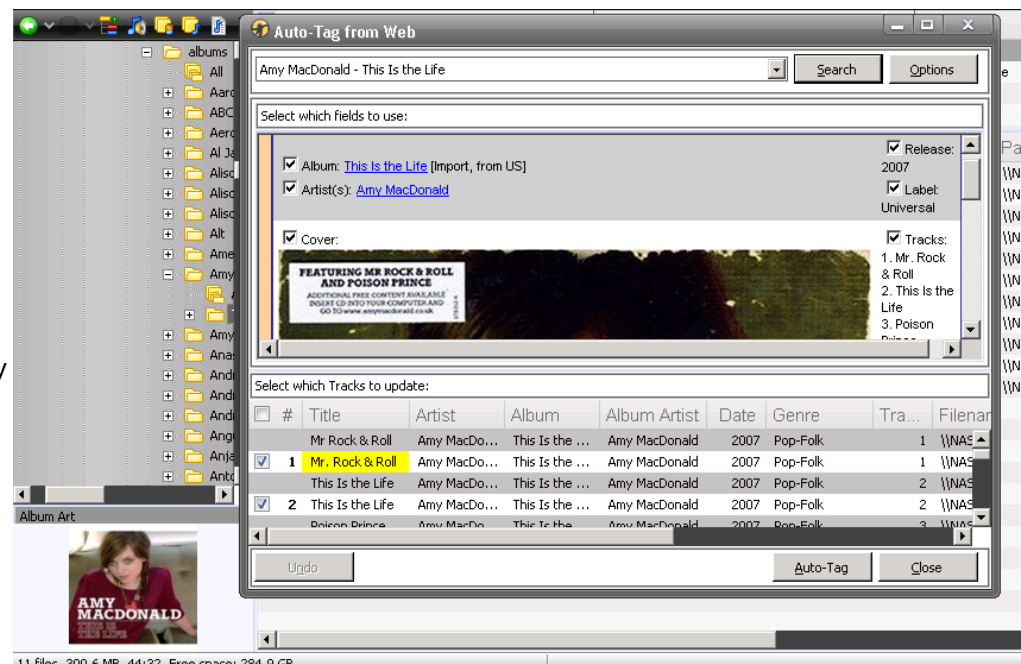
7 If you are happy with the highlighted info click "Auto Tab"

8 If not click "Options" and select Amazon from a different country. US UK Fra Can Jp Ger.

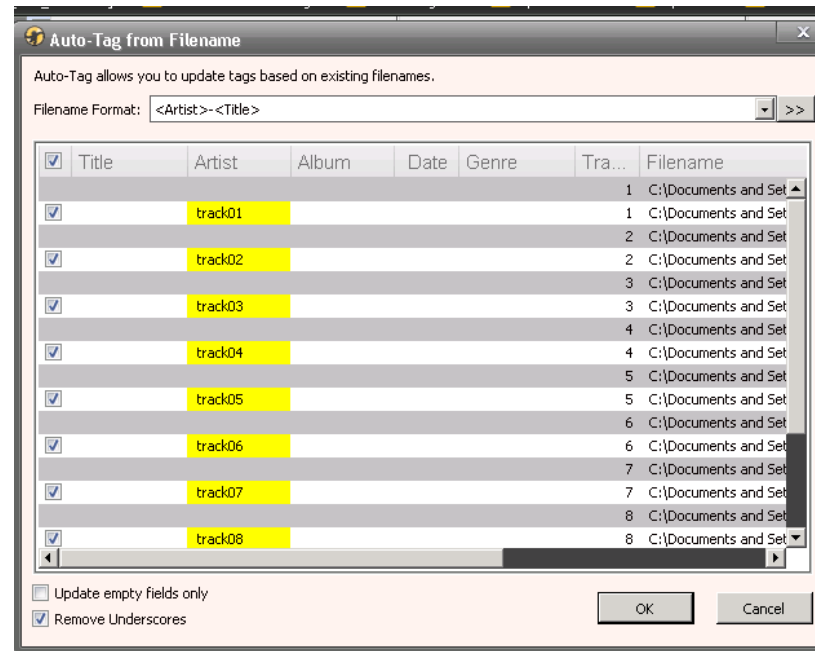
9 See which has the best info and cover art.

10 Press "Auto Tag"

11 If you still cannot find Album info you may have to manually tag this.

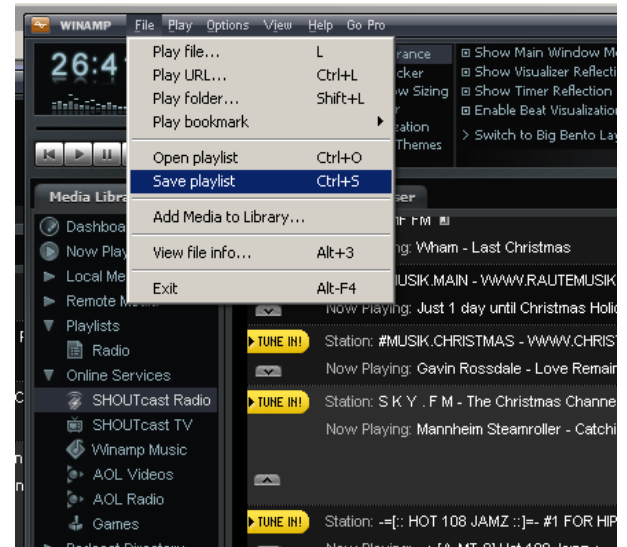


- 12 Instead of going to Auto Tab in Step 5 go to “Auto Tab by Filename”
- 13 Fill in the gabs on the table. You can use Copy & Paste to save typing in the Artist & Album names multiple times. Right Click “Copy” Right Click “Paste”



# WINAMP Shoutcast Playlists [www.winamp.com](http://www.winamp.com)

1. Open WINAMP software
2. Select the Online Services  
Followed by the SHOUTcast Radio
3. Select an MP3 station (shown on right hand of radio listings) and TUNE-IN
4. When the Radio Station is playing,  
Select the File Menu  
Then the "Save Playlist" option.  
& save the Playlist on the NAS
5. On your UPnP Media Server software, rescan the NAS
6. Check that the NAS Media Server has the Shoutcast reception turned on
7. The Radio Station will now appear on your Radio Station listing.
8. complete



# Audioshell (download from <http://www.softpointer.com/AudioShell.htm>)

**To Fix Tags & view metadata info.** The Linn DS uses metadata for indexing your music so this is very useful to check your library.

Audioshell and Tag & Rename are alternatives to MediaMonkey

## Audioshell

You must first load Audioshell if it has not been loaded

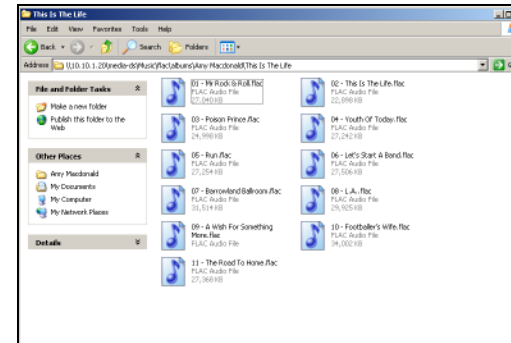
To Use Audioshell, Use Windows Explorer to find the track.

Right Click on the track

Left Click “Properties”

Go To “Audioshell Tag Editor” Tab

Change metadata for each individual track



## If you want to re name a whole album.

Drag the mouse over all the tracks to be changed. They should be highlighted.(as in screenshot immediately right)

Right click on a track,

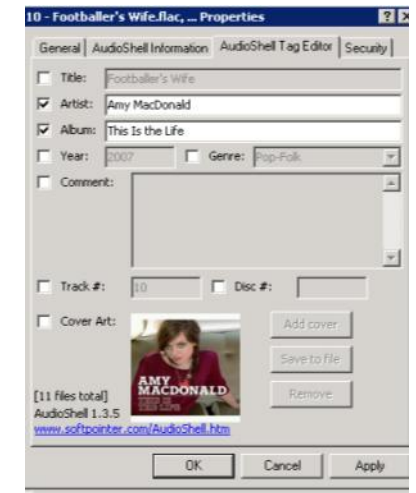
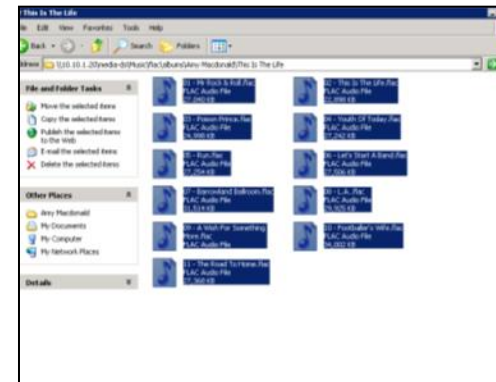
Left Click “Properties”

Go To “Audioshell Tag Editor” Tab (as in screenshot far right)

Tick the box you want to change (“Artist” “Album” etc)

Change the metadata.

Press “Apply” to save.



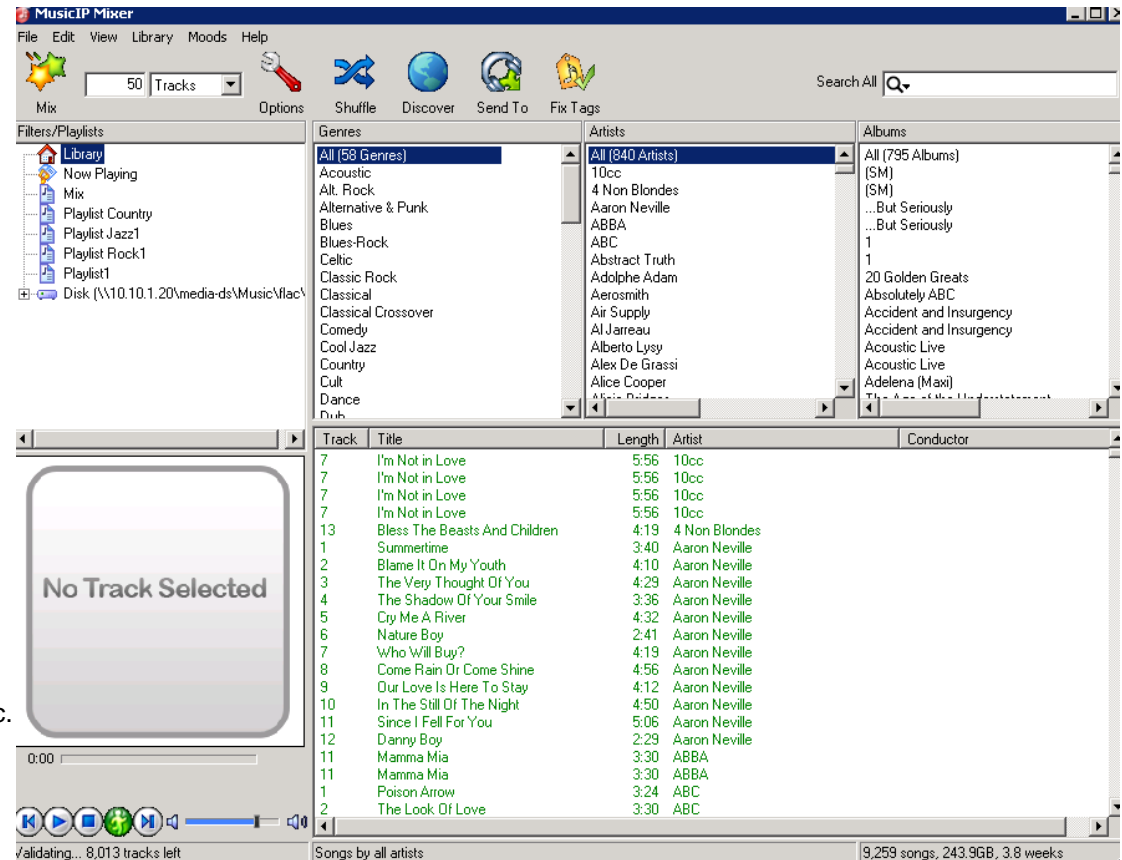
# Music IP Mixer

(download from [www.musicip.com/mixer](http://www.musicip.com/mixer) )

## For Auto Playlists

Firstly I recommend you make a folder in you music library called "Playlists". This file must be somewhere that Twonky scans. I have an artist Called "Playlist" but it can be anywhere that Twonky can see.

1. Open Music IP Mixer.
2. Go to "Library" "Add Songs"
3. Browse for your music files. If using a NAS you may have go to "My Network Places" Click OK
4. Wait for library to appear. Firstly it will appear red then it will go green as it is analyzed.
5. For Auto Playlists, Set the number of tracks you want in the playlist. 75 is max for the free version, If you want larger playlists you will have to pay \$US20 for the full version
6. Click on a song in the library you want to start the playlist with. Then Click on "Mix" (Stars in top left)
7. This should create a playlist called "Mix"
8. You can amend this clicking on the playlist called "Mix" Then deleting, dragging from the library and shuffling etc.
9. Go to "File" "Save as Playlist"
10. Browse to the "Playlist" folder you have made, Name the playlist and save it.

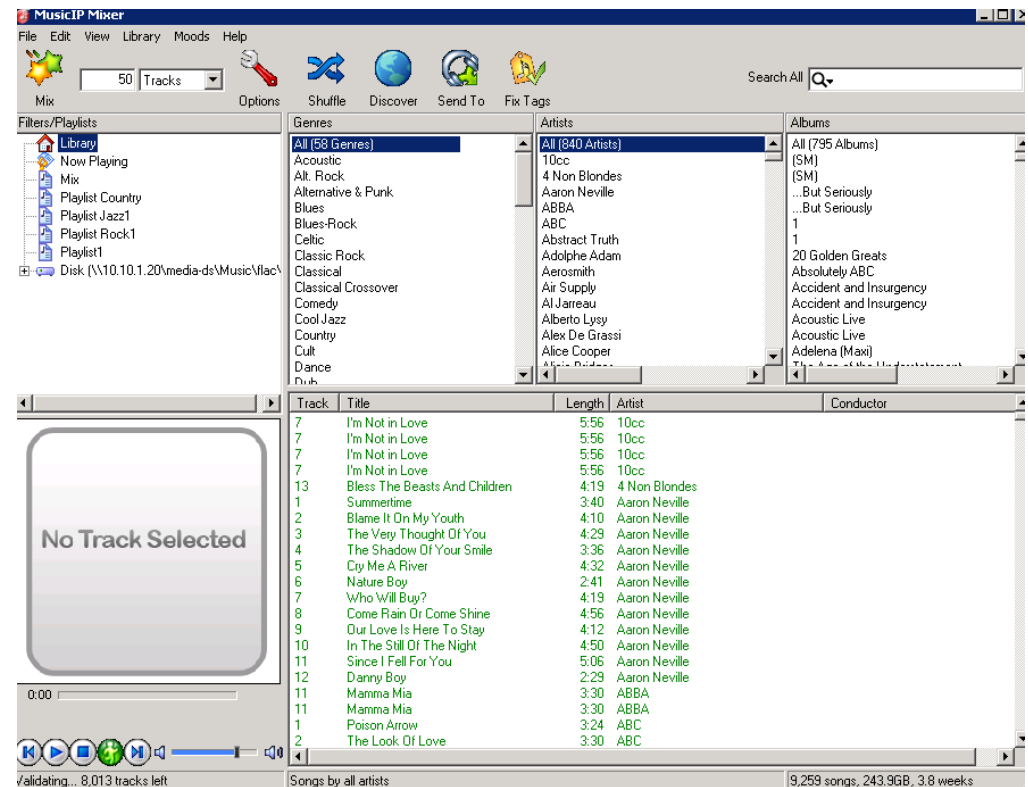


# Music IP Mixer (download from [www.musicip.com/mixer](http://www.musicip.com/mixer))

## For Manual Playlists

Firstly I recommend you make a folder in you music library called "Playlists". This file must be somewhere that Twonky scans. I have an artist Called "Playlist" but it can be anywhere that Twonky can see.

1. Open Music IP Mixer.
2. Go to "Library" "Add Songs"
3. Browse for your music files. If using a NAS you may have go to "My Network Places" Click OK
4. Wait for library to appear. Firstly it will appear red then it will go green as it is analyzed.
5. Go to "File" and click on "New Playlist" Name it.
6. Click on a song in the library you want to start the playlist with. Then drag it to the playlist you have created.
7. Repeat with each song you want to add.
8. If you click on the playlist, you can delete and shuffle etc.
9. Go to "File" "Save as Playlist"
10. Browse to the "Playlist" folder you have made, Name the playlist and save it.





# Troubleshooting Guide

If the DS and computer system has been running fine and something stops working. Firstly check that no data cables have fallen out of the Linn DS or any other computing equipment.

Before getting bogged down trying to fault find TURN THE LINN DS OFF and ON again. Make sure the DS find its IP address. The Sneaky DS light should stop flashing and the Power Standby should come on after the dot stops flashing on the other products.

If this does not cure the problem REBOOT the computer, the NAS if used and any Switches or Routers etc.

## Advanced Troubleshooting from Linn Docs website. <http://docs.linn.co.uk>

This section retrieved from "<http://docs.linn.co.uk/wiki/index.php/Troubleshooting>" 12<sup>th</sup> May 2011

[Some information can also be found in the FAQs section](#)

Additional information is included in the [FAQ](#) section

### iTunes files cannot be added to the Kinsky Desktop playlist

This should only be an issue with Kinsky Desktop V4.1.7 and PC setup for a country that does not use the alpha-numeric character set (like Russia, Japan etc)

The iTunes file shows the Music type in the countries native language and this version (4.1.7) on Kinsky Desktop does not understand this type and will not add the DS Playlist. As a temporary solution (until the next release of Kinsky Desktop) is to add the iTunes library as a folder and select the iTunes files from the folder view.

### ALAC files cannot be played on the Linn DS/DSI player

If the ALAC files have been created with a early version of dBpowerAmp or iTunes, these Music files may not be played by the Linn DS/DSI. To rectify this, we suggest using dBPowerAmp V14 and above and transcode these from ALAC to ALAC, this will correct the file issue

### Internet Radio keeps muting

This is due to breaks in the media stream from the Internet.

This can be due to high network traffic in your area, business first thing monday morning, or heavy useage of video broadcast (like footbal matches).

Some ISP's will also reduce your bandwidth of certain types of network traffic, typically Bittorrent (P2P). Some ISP's will mistake your Radio stream for a Bittorrent and throttle this network traffic and cause muting of your Internet Radio.

### I cannot see any AIFF Metadata

TwonkyMedia does not support the AIFF Metadata. Twonky have been asked to add this (Jan 5th 2011) [\[1\]](#)

### Konfig 3.10.6 does not work with MAC

Konfig V3.10.6 does not work with Mono V2.8.1\_3, you need to use Mono V2.8/1\_4 or above.

Suspect this is due to Konfig attempting to use the wrong network adapter. Delete the file `~/local/share/Konfig/Network.xml` and restart Konfig If possible let us have a copy of the file before deleting it Use 'Go To Folder' in finder to access the hidden folder

Failing that check version of mono used - type `mono -V` in terminal window - expect version 2.6.4 or higher

Note: This does not effect Kinsky Desktop, only Konfig