Music files for your home network.

Today we often use NAS, hard drives, media players, streamers and software that enable us to enjoy music.

However, all of this only works as well as the quality of the source material, and by that I don't mean the content or the recording of the music, but rather how carefully you prepare the files before you put them on the NAS and then read them into your media library.

There are a number of tools on the market. Things can even be done with onboard resources on the PC. After years of trying, I decided on MP3Tag.

https://www.mp3tag.de/ + http://hilfe.mp3tag.de/

I use a NAS as a storage medium, which makes the data available in the home network (LAN).Als Medien Bibliothek verwende ich Roon.

As always, the journey is the goal - only those who put effort into preparing their media will be rewarded in the end with a result that makes listening to music fun.

1   The Process

```
CD  →  Rip  →  Edit
                 ↓
Use  ←  Store  ←  Check
```
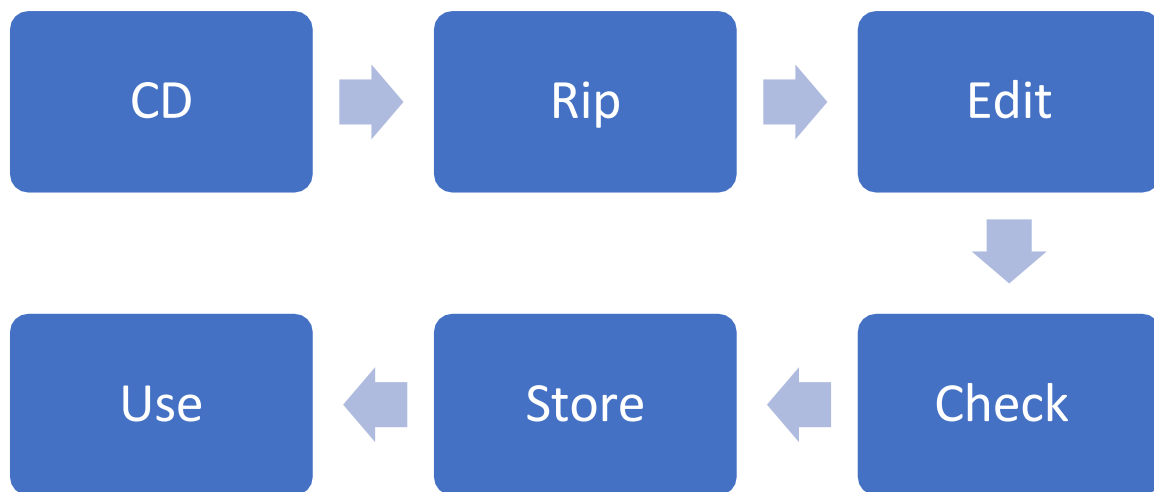
The general process is actually always the same - but can be variable.

A CD is ripped, edited, checked, stored on the NAS and can be used by a suitable media library
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2 The Ripping

A CD ripper (sometimes also called an audio grabber) is software that uses a CD-ROM drive to read ("rip") audio data (usually music) from audio CDs and save it as an audio file. The process is also known as Digital Audio Extraction (DAE).

I won't go into this topic in more detail here. However, I recommend familiarizing yourself with it in more detail. Only cleanly ripped files promise the same listening pleasure as a CD.

Details can be found on Wikipedia or elsewhere on the Internet.

Many tools offer the option of ripping a CD into a usable format (FLAC, ALAC, MP3, etc.). The original is a WAV file on the CD. Of course you could also use this, as it corresponds to a 1:1 copy of the CD. The disadvantage of a WAV file is that the files cannot be tagged.
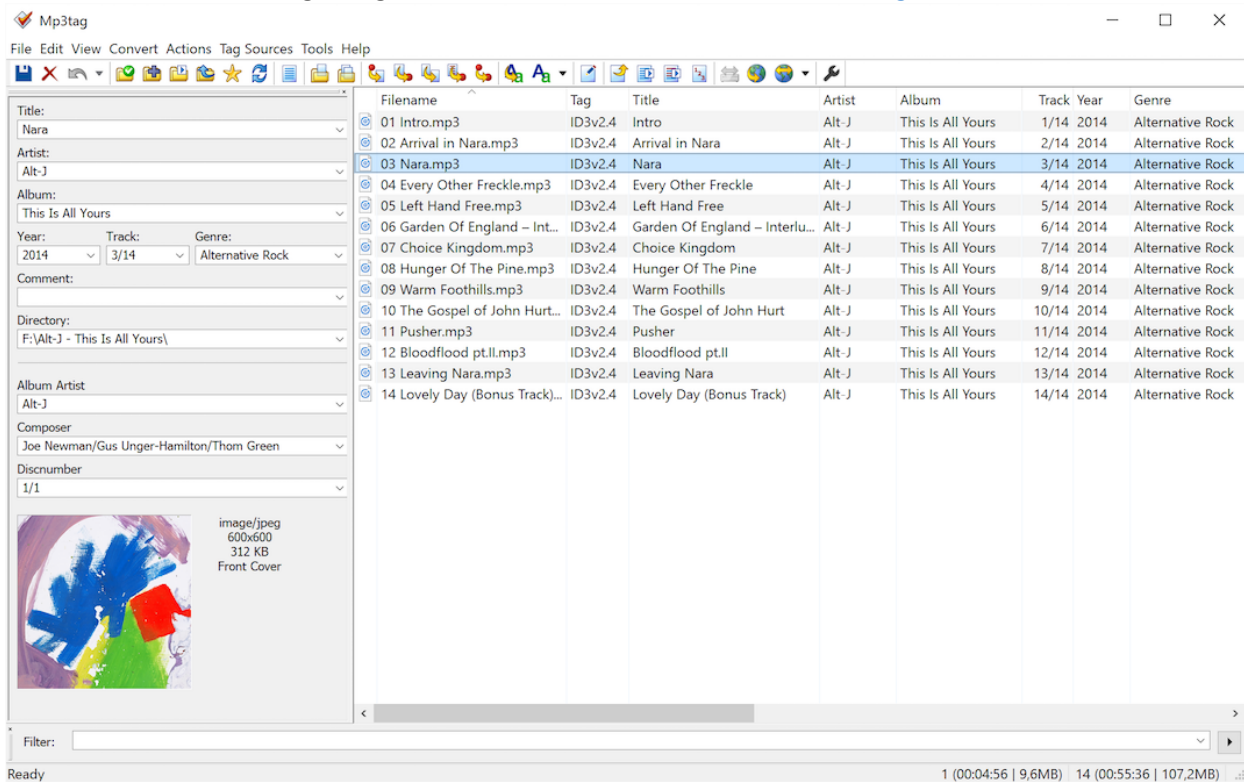
You can also leave the ripping to a machine that does the whole process automatically.

But then you have no control over it and have to trust that the machine will deliver the desired result.

Often there is still work to be done and checked. See step by step instructions.

3 MP3Tag

As mentioned at the beginning, I use free software for this named MP3Tag.

The tool has countless possibilities to cleanly prepare your music.

3.1 Main Features

Batch Tag Bearbeitung Schreiben und Ändern von [ID3v1.1](#), ID3v2.3, ID3v2.4, iTunes MP4, WMA, Batch Tag Editing Write ID3v1.1, ID3v2.3, ID3v2.4, MP4, WMA, APEv2 Tags and Vorbis Comments to multiple files at once.

Support for Cover Art Download and add album covers to your files and make your library even more shiny.

Import from Discogs, freedb, MusicBrainz Save typing and import tags from online databases like Discogs, freedb, MusicBrainz, and more.

Replace characters or words Replace strings in tags and filenames (with support for Regular Expressions).

Create Playlists automatically Create and manage playlists automatically while editing.

Rename files from tags Rename files based on the tag information and import tags from filenames.

Export to HTML, RTF, CSV Generate nice reports and lists of your collection based on user-defined templates.

Full Unicode Support User-interface and tagging are fully Unicode compliant.

Besides these main features Mp3tag offers a variety of other functions and features ranging from batch export of embedded album covers, over support for iTunes-specific tags like media type or TV Show settings, to combining multiple actions into groups that can be applied with a single mouse click.

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[1] ID3 = Identify MP3 – Details findest Du [hier](#)
[2] MusikBrainz bietet auch die passenden Tools zum Taggen an.

3.2 Audio Formate
The following file formats (audio) are supported for editing.

Supported Audio Formats

Advanced Audio Coding (aac)
Apple Lossless Audio Codec (alac)
Audio Interchange File Format (aif / aifc / aiff)
Direct Stream Digital Audio (dsf)
Free Lossless Audio Codec (flac)
Matroska (mka / mkv)
Monkey's Audio (ape)
Mpeg Layer 3 (mp3)
MPEG-4 (mp4 / m4a / m4b / m4v / iTunes)
Musepack (mpc)
Ogg Vorbis (ogg)
IETF Opus (opus)
OptimFROG (ofr / ofs)
Speex (spx)
Tom's Audio Kompressor (tak)
True Audio (tta)
Windows Media Audio (wma)
WavPack (wv)
WAV (wav)
WebM (webm)

4   Step-by-Step

Enough of the theory, let's turn to a practical example.

A CD looks like this on the PC. Of course you can't do much with that.

Name	Änderungsdatum	Typ	Größe
verk (E:) Audio CD			
✓ Momentan auf dem Datenträger vorhandene Dateien (20)			
Track01	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track02	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track03	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track04	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track05	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track06	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track07	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track08	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track09	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track10	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track11	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track12	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track13	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track14	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track15	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track16	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track17	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track18	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track19	01.01.1995 01:00	CDA Audio File (V...	1 KB
Track20	01.01.1995 01:00	CDA Audio File (V...	1 KB

4.1   Reading the files

I use the media player Foobar for the extraction process. This is because it combines countless possibilities in one product.

Open Audio CD   ✕

Found CD drives:

(E:) BDDVDRW GGC-H20L
(J:) CLONEDRIVE

| Drive settings | Rip | Play | Add to playlist |
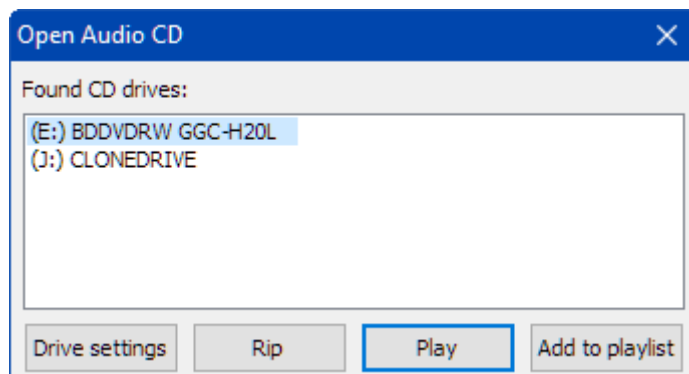
Here you can either listen to the CD or go straight into the RIP process.
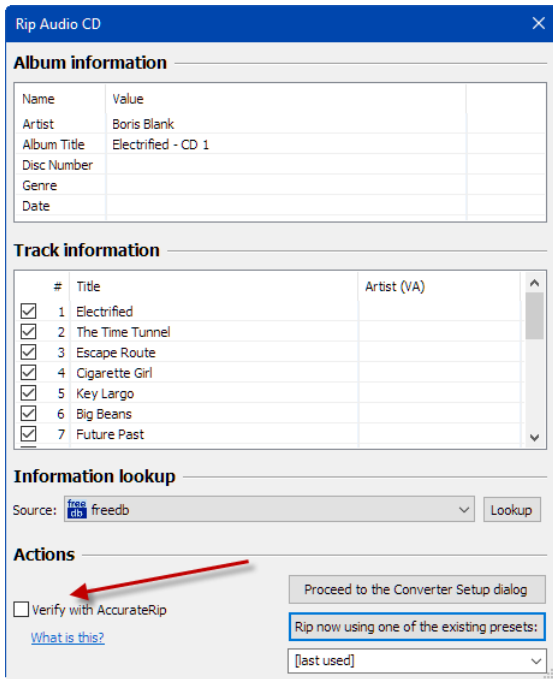
For the most perfect copy possible, I use AccurateRip with EAC in the background.

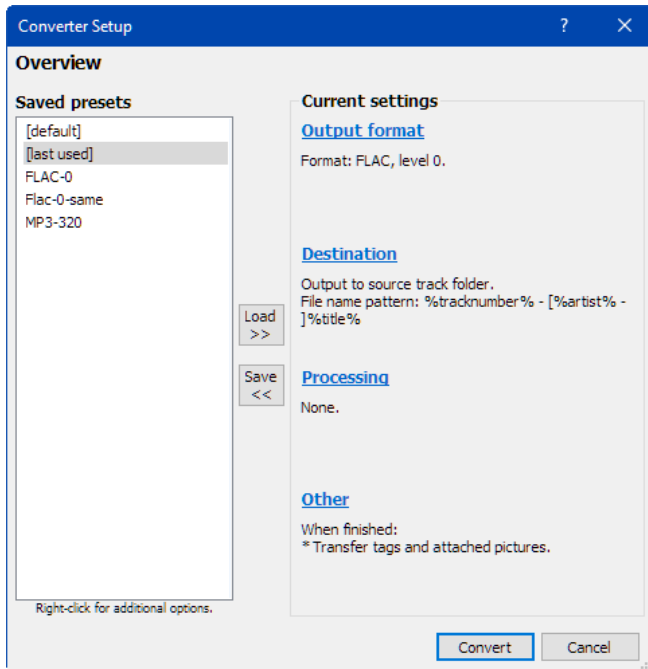But you can also use the EAC tool directly. This also works.
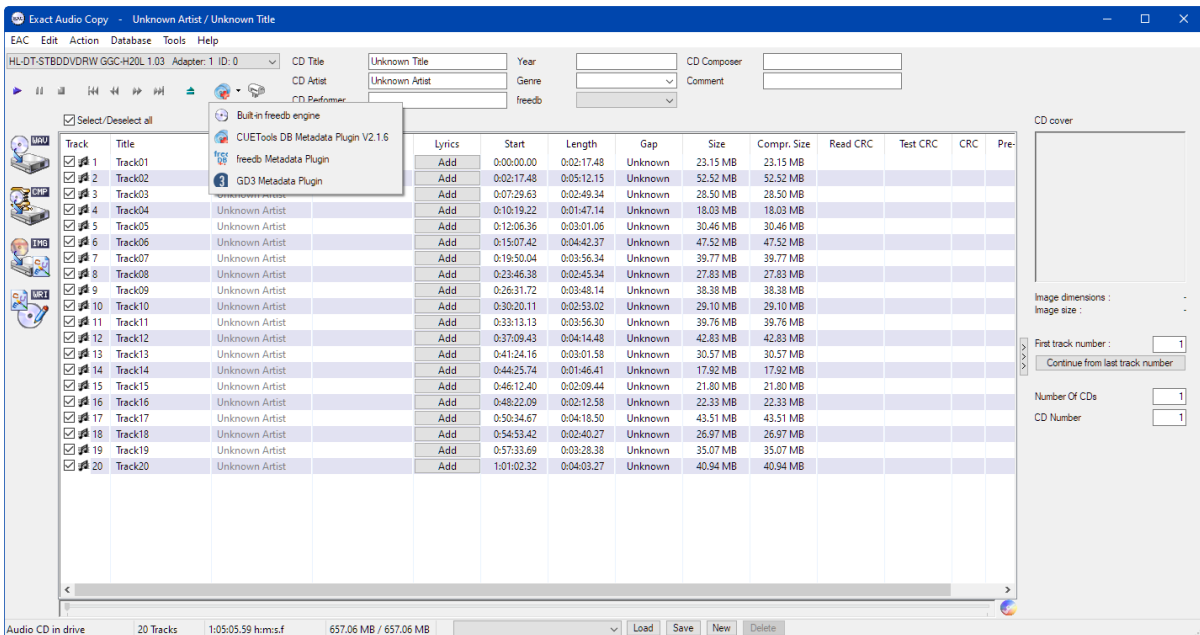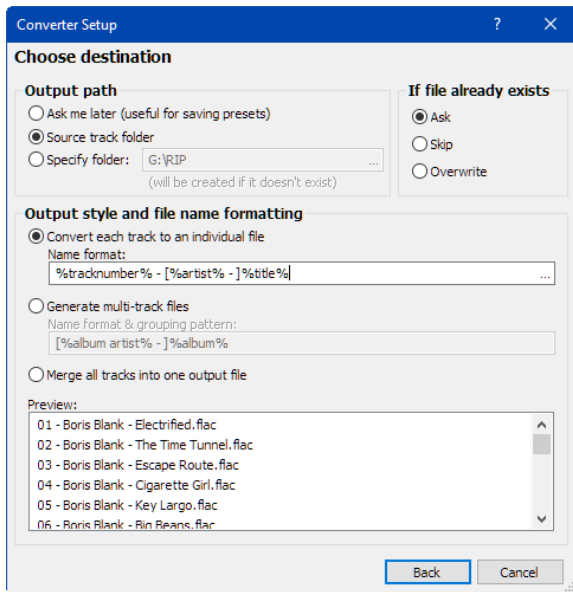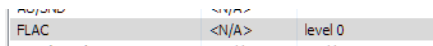

We verify a first album,
And rip it.
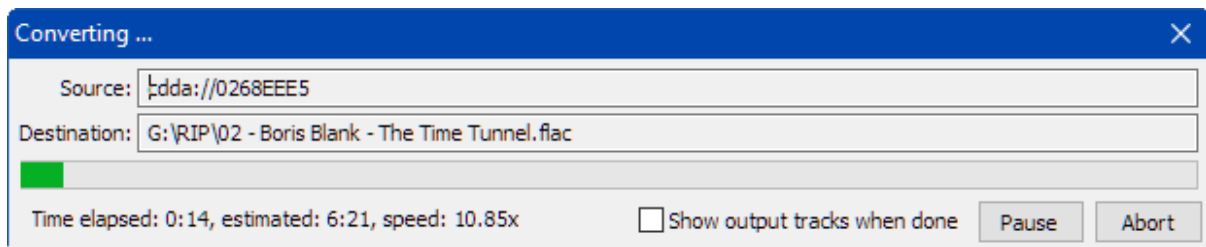
The first Tags are now filled out.
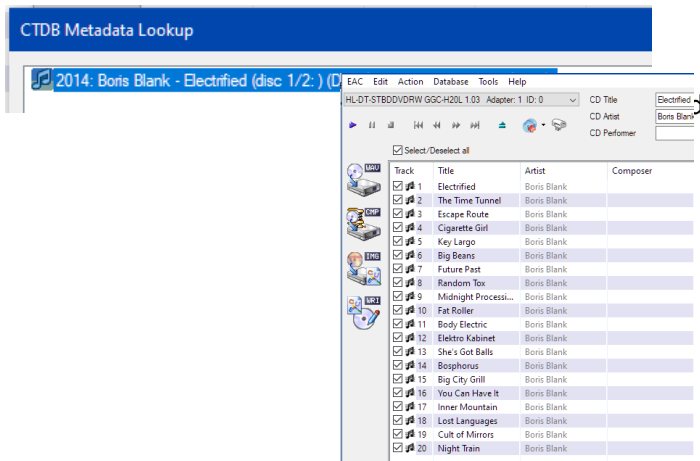
Now I rip the files directly into FLAC format.

The parameters should be checked and set beforehand.

AU/SHD	<N/A>	
FLAC	<N/A>	level 0

The files will now be extracted

4.2   Check

Before further editing, you should play the files briefly. This way you can be sure that everything went well. If you are not satisfied, repeat the process or use another tool.

4.3   Edit

Now we first create a folder where we can save the files.

When it comes to naming, I stick to my own standard - everyone can do it however they want.
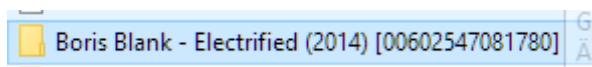
==Artist – AlbumName (year)== [further information of the CD, like EAN Code, Version etc]

I will briefly discuss the topic of storage later in the chapter.

By right-clicking on the folder we can start the installed MP3Tag program.

The representation in MP3Tag may differ from that shown without adjustments in the program.
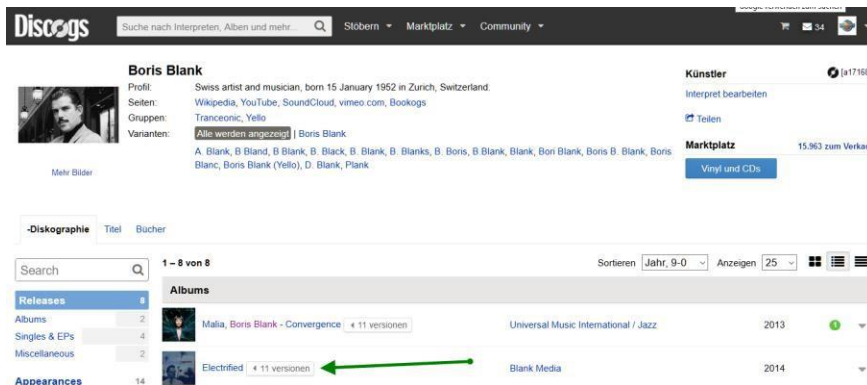

I'll display the points that are most important to me here. (The album cover is not in the picture below left).

4.3.1   Discogs – find the correct album

Before we move on, let's go to the [Discogs site](#) and look for the correct CD from the artist. The

easiest way to do this is to use the artist search

We find our album and see that there are 11 versions[3] of it worldwide.

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[3] That is, among other things, the reason why I am taking this intermediate step.

You can search by clicking on the button.

It's even easier with the EAN code.

Then we found the right album version.

Now we copy the Discogs Release ID to the clipboard. It can be copied directly from the URL
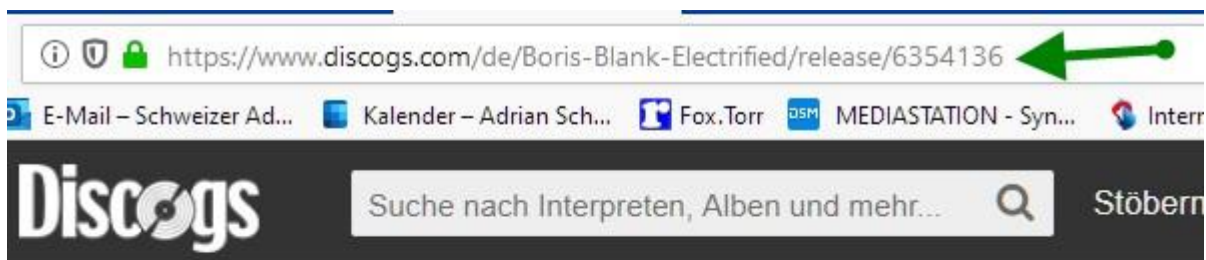
Boris Blank – Electrified

Label:	Polydor – 4708178
Format:	2 × CD, Album
	DVD, DVD-Video, Limited Edition
Land:	UK & Europe
Veröffentlicht:	2014
Genre:	Electronic
Stil:	Experimental, Synth-pop

Mehr Bilder

We switch back to the MP3TAG program

First, mark the files (green arrow, right) with CTRL+A .
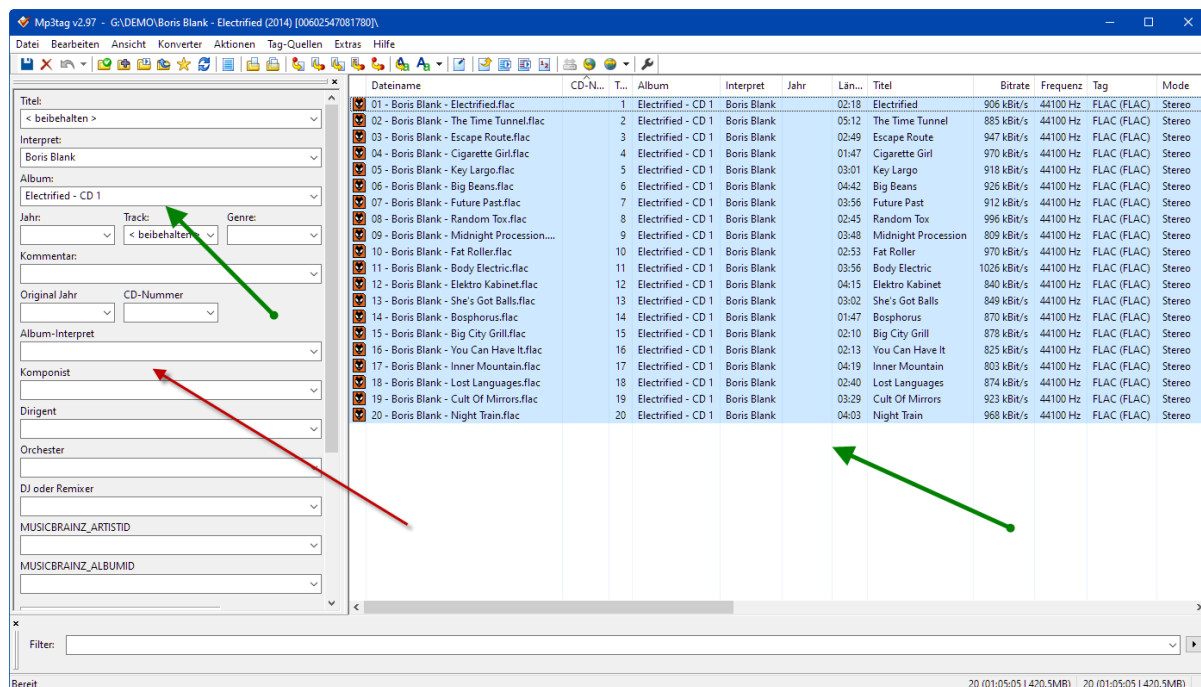
At the green arrow on the left you can see that the album name including CD number is there. Of course we don't want that.

So we are looking for the right album with the Discogs Release ID function.
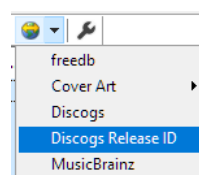
In the opened dialog window, we copy the ID from Discogs and click Next.

Album is now correct, CD number is in the correct field, and there is a cover.

We save the result with CTRL + S.

4.3.2 Useful for tagging

I also copy the artist into the album artist field. Sometimes media libraries have trouble assigning the fields. Album Artists Field can also be use for Compilations by adding Various artists.

With MP3Tag you can also adjust the spelling, data of the files, etc. using conversion.
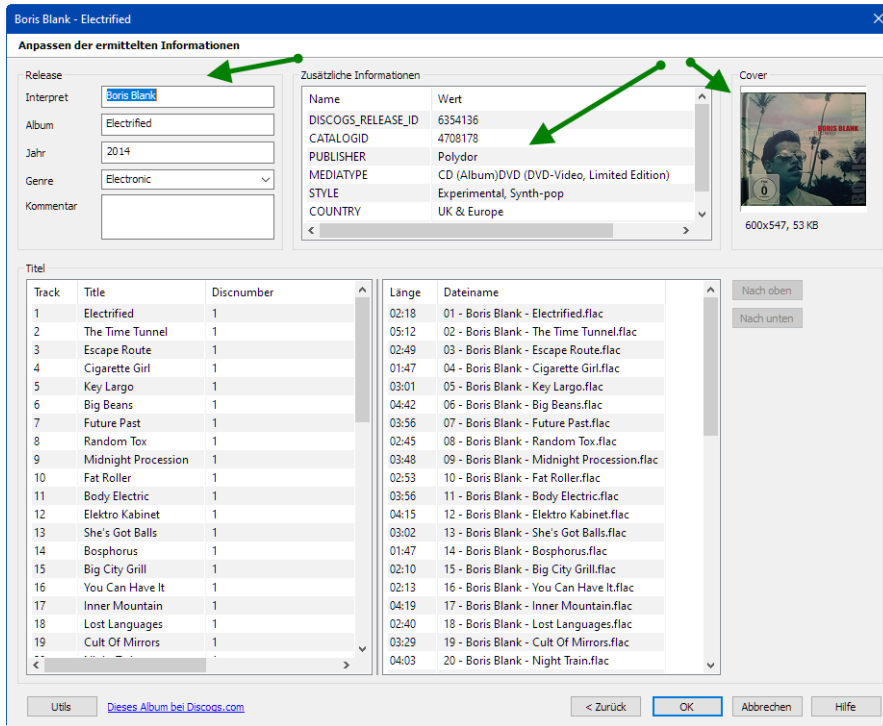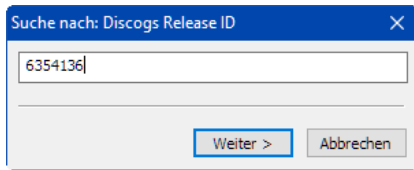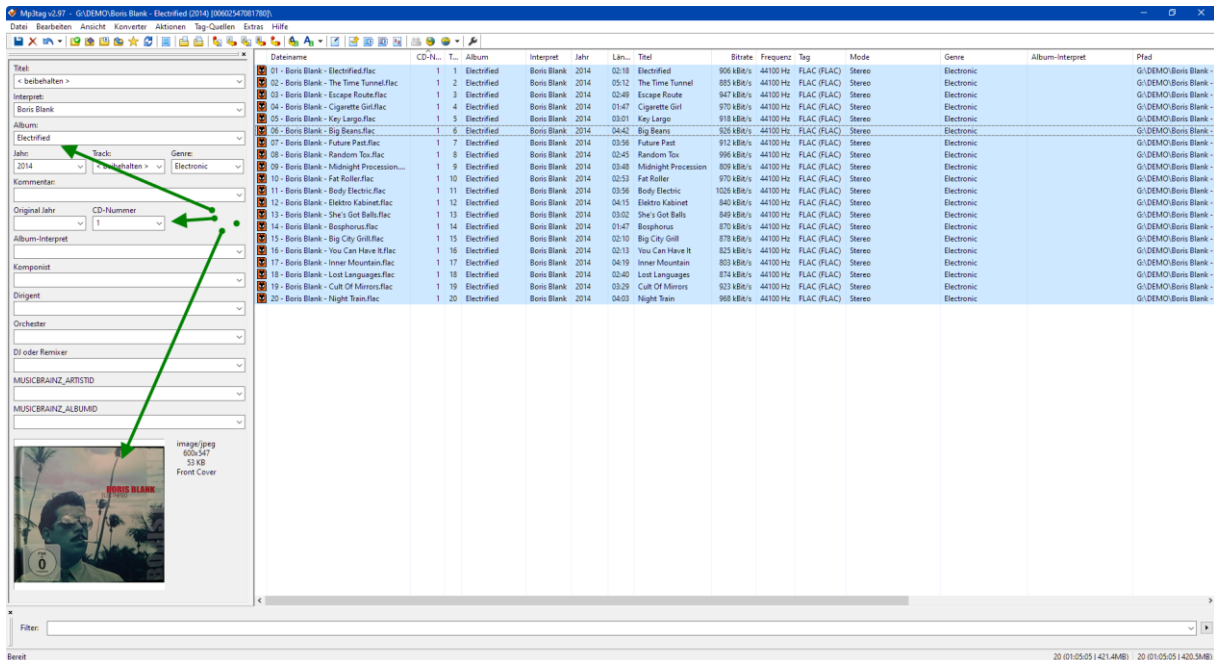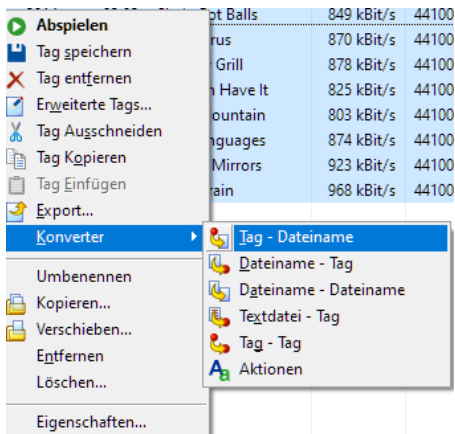

So adapt the files according to criteria - or vice versa, use files as a basis for tagging.

I recommend the Discogs method because it provides the most reliable results.

4.4 Storage

Anyone who stores their data on a NAS should first consider the criteria according to which they want to store the data.

For media libraries, you could simply put the files in a folder, but it would be difficult to find the data afterwards.

You should make a structure

I use different programs myself and would therefore like to be able to read everything or just individual folders. I decided on the following structure.

It comes from a time when I didn't have a Roon. Today I would probably just create an album and samplers (compilations) - maybe this will be adjusted at some point.

4.4.1 Album

For larger collections, it is advisable to create an intermediate structure here. I basically save the data by read name.

Possible variants: Beatles, The / The Beatles – for me you would find it under T, not B – up to you

Name
0-9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

music (\\MEDIASTATION) (R:) > Alben > B >

Name	Änderungsdatum	Typ	Größe	Erstelldatum
Boris Blank	06.10.2019 15:54	Dateiordner		06.10.2019 15:54

Here I stored the Example album

For albums with more than 1 CD, I create sub folders.

Name	Änderungsdatum	Typ	Größe
01 - Boris Blank - Electrified	06.10.2019 15:39	FLAC	15'314 KB
02 - Boris Blank - The Time Tunnel	06.10.2019 15:39	FLAC	33'732 KB
03 - Boris Blank - Escape Route	06.10.2019 15:39	FLAC	19'588 KB
04 - Boris Blank - Cigarette Girl	06.10.2019 15:39	FLAC	12'717 KB
05 - Boris Blank - Key Largo	06.10.2019 15:39	FLAC	20'337 KB
06 - Boris Blank - Big Beans	06.10.2019 15:39	FLAC	31'914 KB
07 - Boris Blank - Future Past	06.10.2019 15:39	FLAC	26'328 KB
08 - Boris Blank - Random Tox	06.10.2019 15:39	FLAC	20'105 KB
09 - Boris Blank - Midnight Procession	06.10.2019 15:39	FLAC	22'563 KB
10 - Boris Blank - Fat Roller	06.10.2019 15:39	FLAC	20'526 KB
11 - Boris Blank - Body Electric	06.10.2019 15:39	FLAC	29'609 KB
12 - Boris Blank - Elektro Kabinet	06.10.2019 15:39	FLAC	26'200 KB
13 - Boris Blank - She's Got Balls	06.10.2019 15:39	FLAC	18'910 KB
14 - Boris Blank - Bosphorus	06.10.2019 15:39	FLAC	11'411 KB
15 - Boris Blank - Big City Grill	06.10.2019 15:39	FLAC	13'991 KB
16 - Boris Blank - You Can Have It	06.10.2019 15:39	FLAC	13'451 KB
17 - Boris Blank - Inner Mountain	06.10.2019 15:39	FLAC	25'417 KB
18 - Boris Blank - Lost Languages	06.10.2019 15:39	FLAC	17'124 KB
19 - Boris Blank - Cult Of Mirrors	06.10.2019 15:39	FLAC	23'596 KB
20 - Boris Blank - Night Train	06.10.2019 15:39	FLAC	28'761 KB

5   The Way to Music

Only with properly tagged music can the players/servers (e.g. Roon) get started right away.
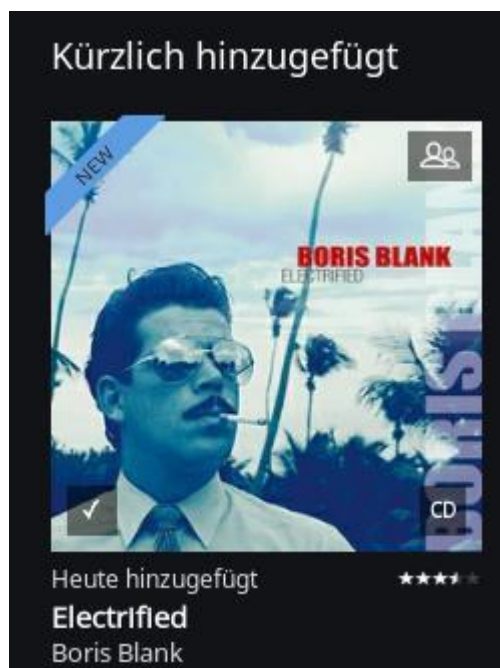
Wish you happy listening to music.

Your Adi / 6.10.2019 / translated 12.5.2024