

BWF toolbox Manual

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Version 1.0.0

Platforms: Windows and Mac

www.VideoToolShed.com

1 General remarks

1.1 Purpose

- Offloading wave files from cards.
- Adding / changing BWF metadata on Wave or BWF files.
- Creating Sound reports / ALE files

1.2 Who should use this?

Anyone who needs to change BWF files, or wants to promote Wave to BWF

1.3 What knowledge do you need to have before you use BWF Toolbox?

Some basic knowledge about timecode / BWF in general.

1.3.1 Please read the manual before you start.

A lot of questions you might have will be answered here.

To make this manual easier to read:

on the left side of your PDF viewer there is probably a button that gives you an interactive table of contents while scrolling. Or, enable 'bookmarks' in your PDF viewer.

If you run into trouble, do check the [Errors chapter](#).

1.4 Demo limitation.

Everything will work just as in the full version, BUT, on altering files:

2 seconds of silence will be inserted every 25 seconds.

Thus, your audio will no longer be usable for other purposes than testing!

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3 Installation

All VideoToolShed products come without an installer.
Nothing gets changed to your operating system!

3.1 Installing for Mac

Drag the application from the DMG to the Applications folder.
You can make shortcuts on your desktop / toolbar if you like, just drag the main application there.
DO NOT try to run the application from within the Disk Image, this will probably NOT work!

3.2 Installing for Windows

Drag the ENTIRE folder to your hard disk.
Right click the application, and select either 'pin to taskbar', or 'pin to Start menu'.
Alternatively, you can drag the icon to your taskbar or start menu.

3.3 Registration

Choose 'Register' from the file menu. A new window opens. If you have bought the program, you've got a mail with a serial number. Copy / paste the serial number in the Register window, and press 'done'. BWF Toolbox will now run fully.

3.4 Uninstalling

Just delete the entire application folder. That's it!

4 Introduction

BWF Toolbox was originally developed to promote Wave files from cheap recorders without timecode. More is added to make it as versatile as possible.

4.1 Quick start

4.1.1 Offload:

(If the files are already on your computer you can skip this step.)

Go to the offload page using the top right button, and pick an offload folder.

Inside that folder a new folder will be created with today's date, and inside there new folders for each card.
(Up numbering.)

Select one or more drives, and press 'Copy drives'

(If you have attached drives after you went to the offload page, press 'rescan' for the app to find them.)

When done, you can load the clips immediately by pressing the 'load these clips' button. (This will be the same as if you would go to the Operate page and pick the date of today.)

While you are here, you can alter the 'CSV header' information.
This will be what is on top of the CSV sound Report.

Use TAB to separate the fields if you like.

4.1.2 Alter files:

Go to the main page and load your files. Either by drag/drop files or folders, or by picking a folder with the 'pick source folder' button.

Note, no matter the state of the 'include subfolders' checkbox, on drag/drop all subfolders will be included.

Decide what you want for time information. You can choose between:

- BWF time (if present)
- File creation time
- File modified time

Pick one that suits your needs the best.

When switching between the different formats, you might see a change in the amount of files.

This will be a result in how the application handles splitted files. See Mono / poly and spanned clips:

Playback / finding a position

If you want to change all timestamps to a custom time: (like you have a clap with the timecode of the clap spoken out):

Load a clip by double clicking it. A waveform is drawn, taken from the selected channel, the clip is loaded and the beginning is analyzed for peaks. It will jump to the loudest peak, assuming that is your clap.

If you have a clap at the end, double click the clip while holding SHIFT. Then the end is analyzed and drawn.

You have JKL control besides the buttons. (You might need to hit RETURN first to disable editing one of the fields.) And while holding K, you can SUB frame step with J and L.

(Meaning, you will not always see the TC moving, but trust me, you will do 'something', as BWF timestamps are samples, way more accurate than frames.)

When you press 'u', there will be a tiny bit of playback, and the playback head will return to it's last position.

This is a great way to find a clap. Trim forward until you don't hear the clap, then go back a tiny bit.

Most of the time the application will find the clap by itself, just use the buttons to step through the peaks.

(Note, the selected channel to plot is also the channel that is analyzed for peaks.)

Other options to control playback position:

- You can drag the (white) CTI (Current time indicator).
- You can click on the waveform to go there.

Playback will be from the actual file in which the chosen channel resides. Meaning, if you have mono files, only the file with the waveform drawn will play.

If you have Poly files, all tracks will play.

Now, if you have found your point of interest (where you know what TC that point has to be), type in the TC in the TC window next to the 'This frame TC should be' button.

Then press the button.

All files FROM THE SAME FOLDER OF YOUR CHOICE will get the same offset displayed. (TOD style)

Meaning, all files will shift.

Of course, if you are in File Creation or File Modified time, the other files might (will) be a bit off as the time in the files is only second accurate. But it will get you close and save Editorial a lot of time!

Pressing the 'Alter all files' button will set the new timestamps on all files.

(Note, on ALL files loaded, not only the ones currently displayed!)

If you also want to change (some) of the metadata (like track names), do not yet press the 'alter all files' button yet, but read on:

4.1.3 Setting custom metadata:

If BEXT or iXML metadata is present, it will be displayed after you load a clip for playback.

You can alter that if you like. (And save it for future use, or recall from a previous saved set of metadata.)

Note that TAKE will be up/downnumbered for following / previous clips.

If you leave the 'Scene' field empty, the filename will be used for Scene.

If you press the 'Set Metadata' button, the new metadata is applied for the currently displayed clips and will be updated / altered / added if you press 'Alter all files'.

5 Advanced, fix drift problems

If you run a recorder without any form of synchronization, you probably have a drift over (long) time.

This is unnoticeable on short recordings, but at the end of a shooting day you might be a few seconds off.

To find the drift of your recorder:

Record a LONG clip (an hour at least, the longer the better), and make sure you have a clap with know TC at both the beginning and the end. It does not matter if the file gets splitted due to file size limits.

(Of course the time of the claps has to come from your master TC device you want your recorder to be in sync with.)

Import the clip, and search for the start clap, enter / set the TC as it should be.

Then, reload the END of the clip. (Doubleclick on the clip again while holding down SHIFT.)

Now find the endclap, and set the TC again.

You now get a message what the drift of your recorder is, and the new sample rate to fix it.

If you then process the file(s), they will be in perfect sync with the device you used for setting the claps.

(There will be a slight pitch change of course, but that will be unnoticeable in almost all cases. There will be no quality loss whatsoever.)

In one of the next versions I'll make a function where you can re-call the drift of your recorder, so only one clap is needed, and the rest is done based on the known drift of the device.

6 The interface

If you run the application, You'll see one single window. On the right top there is a button where you can switch between offloading (file copy from cards to computer) and altering the files.

6.1 The Menu functions

On Windows, the Menu is on the top of the BWF Toolbox window.

On Mac, the File menu is on top of your screen, if BWF Toolbox is the active application. (Click on it to make it the active application.)

6.2 Menu 'file'

- Register
Choose this if you have bought a licence. A new window opens. You've got a mail with a serial number. Copy / paste the serial number in the Register window, and press 'done'.
- Quit
To quit the application and save your settings.

6.3 Menu 'Setup'

- Pick Offload folder
Select this to choose a folder where you want your material stored when you are offloading cards.
- FPS
Pick the desired framerate. This is used to do some math on TC display.
- UB as
Tell the application in what format you would like the Userbits if there are none present.

6.4 Menu 'Plot and Analyze'

- Set the duration of the plotted waveform and peak detection. Shorter is faster.
- Turn On or Off jumping to the highest peak on loading clips

6.5 Menu 'Offset'

- Choose here to open a window where you can set an offset to shift all files

6.6 Menu 'Help'

- Open Help
Shows this manual.
- About
Shows the version of BWF Toolbox you are running.

6.7 The graphical interface

You see rounded buttons, as well as square textfields.

They mostly explain themselves, but note that some textfields are pulldown buttons, and some are for entering text.

The right / bottom part is the metadata, where the 8 most right fields are to enter / display the track names. (If present, they will be shown. Alter / add them to your liking.)

You can click on a file in the list for playback / display of metadata.

Note that the waveform is (a bit) normalized, so it might look louder than it actually is.

More to follow.

7 Mono / poly and spanned clips:

On loading files, the application tries to decide what are mono/poly and splitted (aka spanned) files.

It does that based on timestamps and / or filename. If files have the same timestamps, they are considered to be part of a group. (This can be multiple mono, multiple poly or a combination.)

if files have an underscore in them:

(Like myfile_1.wav / myfile_2.wav), it takes the first part of the name AND the timestamp. If both match, they are considered a Poly group.

If there are no underscores, all files with the same timestamp will become a group.

Grouped clips will show filename_X (where X means that there are multiple files with the same start.)

If the files are named Sound Devices style (filename_1.wav for mono track one and so on), the number is stripped off for display.

Spanned clips will NOT be shown in the interface, as they are considered to belong to the first one.

The first one will show 'spanned' after the filename. (No worries, they WILL be processed.)

If the duration of the file Plus the start time is (about) the starttime of another file, the file is considered to be 'spanned'

On setting timestamps, the timestamp of the spanned files will be EXACTLY unnumbered, so a sound editor will see it as a seamless cut (as it should be).

This is also true if you work from the file date. The first one might be a bit off, but the rest will match the first one perfectly.

8 Gotcha's / known issues

If you have (either a poly or mono) file with more than 8 channels, you get an error.

If you want to set an end clap, the end file must be longer than the Plot duration time, or you get an error, or unexpected results.

9 Errors

In case you run into trouble, first things to check:

9.1 BWF Toolbox will not start or behaves strange.

On Mac, if your language is set to Russian, the application might not start. Switch your OS to another language.

Make sure you run the application with Admin rights. The application needs Read / Write permissions in it's own folder, and subfolder.

(Right click on the folder and choose 'properties', it should be set to Read and Write.)

9.2 Files will not change

Check if you have permissions in the folders where the files live.

10 Appendix A, BWF explained

11 Appendix B, ToDo

What to do with metadata, notes per clip or all in group?

Add an 'auto load metadata' for known cards / serial numbers from recorder / other unique recorder info?

Alter file / folder structure on offloading? Only for known types?