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Requirements:
• Windows 10, 8 or 7 SP1
• Microsoft .NET 4.8 (should already be installed on Windows 10, 8 and 7 PCs with recent Service Packs)
• Internet connection: Required for tagging audio files with data from Musicbrainz and to scrape album and concert/music videos artwork. Also, to check for updated future versions of Music Media Helper.

If you are planning to do lots of media conversion and tagging: a fast hard drive is recommended (SSD is the fastest)

Installing Music Media Helper (MMH):
Install the application from this URL (hosted on a Microsoft Azure server in USA):
https://reva.blob.core.windows.net/mmh4/publish.htm

This screen will show you the current version number. Example:

Reva Consulting Services
Music Media Helper

Name: Music Media Helper
Version: 4.0.0.0
Publisher: Reva Consulting Services

The following prerequisites are required:
• Microsoft .NET Framework 4.8 (x86 and x64)

Click: Install

The program installer (MMHInstaller.msi) will be downloaded (approx. 100MB).

NOTE: This file is standard Microsoft Windows installer. (No viruses or malicious code).

• Microsoft Edge web browser pops-up a small window asking what you want to do with the MMHInstaller.msi file. Click: Run (to start the installer & download all required files).
• The Google Chrome browser will warn you that this file may be ‘dangerous’ (just like any executable downloaded from the internet). You will need to tell Windows to ‘Keep’ the file (Don’t discard it).

In Google Chrome use the pop-up menu next to the ‘Open’ the MMHInstaller.msi file. Please use that. When downloaded open the MMHInstaller.msi or run it to start the installation of all required files.

Depending on your browser and Windows version you may get another security warning (again normal for running code from a downloaded file). Here’s the one on Windows 10 after running MMHInstaller.msi from Google Chrome:
You will need to confirm that MMHInstaller.msi is ok to run. With the above dialog click: ‘More Info’ link text with will show more info and give you an option to ‘Run anyway’:

The installer (MMHInstaller.msi) will now run and install the Music Media Helper application and add it to your Start menu and also create a short-cut on your desktop.

**Updating Music Media Helper**

Music Media Helper (MMH) automatically checks if there is an updated version on start-up and will allow you to update your version. Of course, this will only occur if you have an internet connection (and you have already installed version 4.0 or higher).

There is a ‘Check for Updates’ toolbar command on the MMH Launcher dialog which you can use to check if you have the latest version. If a newer version has been published, you will see a pop-up asking if you wish to upgrade. If you click ‘Yes’ MMH will auto download and update its changed files, then automatically will re-start MMH. Easy.
A Note on Music Concert Folders & Files:
If your music concerts discs are split into individual songs files it is much easier to play specific songs and add specific songs to Playlists etc.

Kodi (and other media players) will show the concert song files and allow users to navigate to them through either their inbuilt file browsers or from their Library views or tablet & smart phone apps (for Kodi remote apps). However, Kodi also requires additional metadata about each music video file stored as XML in an NFO file.

MMH will create the NFO files for Kodi or XML sidecar XML files for JRiver automatically if Concerts are stored as per Kodi’s folder requirements below.

Kodi expects Music Videos to be stored in a folder structure like this:

**(Root Concert Folder)**/**ARTIST** - **CONCERT NAME**

Example:
F:/Concerts/David Gilmour - Remember That Night

Please note the dash ‘-’ character between the Artist and Concert/Video Name

For MMH Root Concert Folders can be on any drive accessible from your Windows PC including NAS/Servers.

**IMPORTANT:** This application (MMH) expects all Music Video/Concert Folder names formatted as:

**ARTIST** - **CONCERT NAME** or **ARTIST** - **CONCERT NAME (YEAR)**

MMH will also add the Year to NFO or XML files if your concert folder name ends in a bracketed year:

Artist - Concert (Year)

**HINT:** To allow Kodi to load the concerts just add the Root Concert Folder as a Video Source (Music Video) and set the scrape options to ‘nfo only’

Inside the Concert folder will be your media content:

- One or more Music Video files (MKV, M2TS, VOB, MP4, AVI, TS etc)
- For each Music Video File, one NFO file with same name as Video file (e.g First.mkv and First.nfo) or one XML file for JRiver (depending on preference settings)
- Folder.jpg: The concert poster art/cover art image
- Fanart.jpg : Artist Fanart/background image

Music Media Helper will create the NFO (or XML), Folder and Fanart jpg files and split a single Concert Video into separate chapters and provides tools to rename the concert chapters with the song titles. (The images scraped from TMDB).

**NOTE:** When MMH creates NFO or XML files in a convert/video folder it also creates a file named: Concert.nfo. This file is used to hold data about the concert for future NFO or XML updates (i.e. MMH just reads the Concert.nfo to get this data). You should also copy Concert.nfo to your final media folder, along with media and NFO or XML files.
**Launcher Dialog:**
On start-up Music Media Helper (MMH) shows the tool *Tools Launcher* dialog allowing access to the various Audio and Video tools provided by this application:

![Tools Launcher dialog](image)

**HINT:** To help new users understand each tool’s workflow, upon opening a tool window only valid commands and options are enabled or visible. Most often opening a file or selecting multiple files will enable additional commands and options to continue with the current tool.
On the Launcher toolbar there are three options:

**Preferences:** Allows setting of global preferences

![Global Preferences](image)

Skin: In Version 4.0 a new ‘Preferences’ dialog was added on the Launcher toolbar that enables users to select their preferred skin/themes. By default, the ‘Office 2019 Black’ skin is enabled (as shown above). You can choose from eight different skins. Some of the screen captures in this document were captured using the original default skin.

Folder Dialog Style: This preference controls how the Folder Browser dialog appears in MMH. ‘Compact’ is a simple tree view that works well for most users. ‘Wide’ provides a view more like Windows File Explorer and allows users to enter a folder name including folders on unmapped servers (e.g. `\MyServer\MyFolder`).

**About:** Shows information about MMH

**Check For Updates:** This forces MMH to check if your version is still current. If there is a newer version available MMH will display a dialog with information about the update. You can accept the update (MMH will download and install) or you can choose to ignore the update.

**NOTE:** Clicking on the Version Number at the bottom left of the Launcher dialog pop up a version history dialog.

**NOTE:** This PDF documentation can be viewed from the Launcher dialog by clicking the small Help (?) icon on the top right of the dialog

Each MMH Launcher tool’s functionality is explained in the following sections:
Split & Rename Concerts:

Functionality:
This tool enables you to do the following:

- Split an MKV file (with Chapters encoded) into individual MKV files, one file per chapter.
- Rename the Chapter files by copying a list of tracks (typically from a website containing a list of songs in the music concert release disc)
- Rename the Chapter files by using a MusicBrainz online lookup (only albums and concert release will be found in the Musicbrainz online database)
- Renaming can also create NFO files (small XML data files used by Kodi) or XML sidecar files (for JRiver). These can be either scanned in Kodi’s music video library to load artist and song titles into the music video library and used for playback from the library or scanned by JRiver to add additional tags to JRiver’s video library.

Renaming also has an option to ‘Renumber’ all the new chapter files (prefix each file sequentially to force the chapters to be shown in file browsers in their original concert sequence). Example:

01. First Song Title.mkv
02. Second Song Title.mkv

HINT: There are various applications that will convert a DVD or Blu-ray disc to MKV including MakeMKV. You should ensure the MKV output contains chapter information (chapter start times).

NOTE: The chapter files created by MMH will contain the same audio tracks as per the original MKV file. The original source MKV file does not get changed in any way.

If your music concert is already split into chapters, you can still use the Split & Rename tool to only Rename your files.

Split & Rename Walk-Through:
Splitting a Concert Video MKV file:

In this scenario we will assume you already have a Concert MKV containing the entire concert in a single MKV file.

Firstly, ensure you have created a folder named in this format: ARTIST - CONCERT NAME and you have copied your Concert MKV file into that folder.

Click: ‘Split & Rename Concerts’ from the Launcher dialog. The following dialog appears:
**HINT:** If your Concert Video has already been split into chapters you can use the ‘Rename/Tag Media Files’ tool to load all the files into its dialog. (this supports copying a list of song titles in one step and/or renaming from a Musicbrainz online lookup)

Click: ‘Split MKV File’ from the top menu

MMH will pop up a file browser dialog for you to select the source MKV file you wish to split:

**NOTE:** The new output chapter files are saved to the same directory as the original source MKV selected to split.

Select the Concert MKV and click: Open (or just double-click on the MKV file)
MMH will now pop up a dialog displaying all the Audio Streams in the selected file so you can change the Default Audio Stream. This only pops up if the input MKV file has multiple audio streams:

![Change Default Stream to selected Audio Stream](image)

The current Default stream is highlighted (as shown above).

**NOTE:** The Default audio stream is played automatically on initial playback.

Select a new audio stream and click: Select (or just `double-click` on the stream in the list) to change the default audio stream. Click: Cancel to leave the existing default audio stream unchanged.

MMH now splits the selected file into its chapter files – You will see a progress bar showing percentage complete while this task runs.

When the split task is completed the original MKV has now been split into its individual chapter files named in same sequence as the original chapter layout and all the chapter file names are loaded into the *Split & Rename* dialog. If the original MKV file has named chapters they will be loaded as the screenshot below:

**HINT:** You can manually edit the ‘New Name’ value if required.

If there are no named chapters in the original MKV you may end up with ‘New Names’ that do not contain correct Song Titles or they are empty like the next screenshot, in which case you should rename them:
Getting Track (file) Names from Musicbrainz (online music database):
After the split files are loaded into the grid:

Click: ‘Get Tracks from MusicBrainz’ from the toolbar menu.

This displays the MMH Musicbrainz Tagging dialog:

Initially this is empty.

To search for an album’s tracks:

Enter the Artist and Concert or Album Names (first two text boxes), then

click: ‘Find’
NOTE: If there is more than one matching ‘Album Artist’ name found in the Musicbrainz database, MMH will ask you to select the correct artist from the Album Artist dropdown list. Once selected MMH will then search for your selected Album or Concert Name by the Album Artist chosen.

If you enter valid names the ‘Releases’ list will be populated with all known releases. Click on any release to see its track names listed in the Track List.

To use these tracks to rename and tag: Click: ‘Copy Tags’ at bottom. The Split & Rename dialog will now contain the album’s track info.

You can also manually edit the track list by clicking ‘Copy Track Titles to Edit’. This opens a new dialog with free form editing of all the text. You can also copy txt into that dialog.
Copying all the Tracks Titles from the clipboard:
Sometimes the Musicbrainz lookup will not find the release (maybe it doesn’t yet exist in the database or your search names entered aren’t a close enough match to find the entry). In this case you can copy a list of track names from a text list of tracks or from a web page.

If you do not already have a list of all the track names that you can copy, use your favourite web browser, search for your Concert or Album in Google, find a web page that lists the songs, select all the list text and ‘copy’ (CTRL-C) to your clipboard.

The next figure shows a webpage from Discogs where a mouse was dragged over the track list (ready to copy):
After highlighting (selecting) the track list press CTRL-C to copy the selected text to your clipboard.

If you do have the titles already in a file then open the file, select all the track list text and ‘copy’ (CTRL-C) to your clipboard.

**HINT:** Sometimes the published concert Track List does not include the introduction chapter or the credits chapter, so sometimes the number of chapters (hence the number of chapter files) is not the same as the number of track list songs. In this case you may wish to first copy your clipboard selection to a temporary text file and manually add an intro at the beginning and/or credit at the end. You can remove the first and/or last chapters from the Rename dialog’s list by selecting the file and clicking ‘Remove’. Once you have your updated Track List copy that to your clipboard and you are ready to continue.

Now click: ‘Paste from clipboard’ command on the main dialog:

This pops up the MMH Track Editor:

Click: ‘Paste Track Titles from Clipboard’ from the Track Editor’s toolbar and the text copied from Discogs is pasted, but in this example it also includes the track length:
To remove the track lengths, use the Track Text Editor’s Remove menu option ‘Remove Trailing Numbers’ as shown above. This removes the unwanted trailing numbers:

Click: ‘Copy Tracks’ to update the track names and proposed new file names in the main grid.

**NOTE:** The Track Text Editor shows each track name in its own line. Users can add and delete lines in this editor to add and remove tracks from the current track list used to rename tracks in the grid.
NOTE: MMH will automatically adds a sequence prefix to the New Names imported from the clipboard. So you don’t have to add any numeric prefix. You only need to ensure the song titles are in the correct sequence. MMH will actually remove any leading numbers and renumber them, so if some song titles have leading numbers and some don’t’ MMH will clean up those for you.

**Edit Grid Data manually:**

You can edit any cell in the grid at any time or do a multi-column (bulk) edit and change all the values of all the selected rows with a single edit.

**To do a multi-column edit (bulk edit):**

First select the rows you wish to edit (clicking on a row select that single row), CTRL + A key selects all rows, holding the CTRL key down while clicking rows selects the rows clicked. CTL + SHIFT after selecting a single row selects all rows from the first row selected to the last and every row in between. (typical Windows selection methods)

Click: Edit Selected Tags from the tool

MMH pops up the Multi Edit tags dialog:

In the next figure CTRL-A was used to select all the rows (tracks). MMH shows every column that is editable and checked the current values of each column’s cells for every selected row.

If all the values for the column are identical MMH displays that value.

If all the values for the column are NOT identical MMH displays ‘[multiple values]’ and then loads the unique values into a drop-down list. You can easily open the drop-down list to see the different values currently in that column. You can either enter a new value or select one of the existing values to use for all rows.

The figure below shows an example where two columns display ‘[multiple values]’ (Title and Year) with their values in drop-down lists. Each of the other columns have the same values shown in text boxes. The Year has its drop-down list open displaying the two values in the Year column of the grid (values 1973 and empty). You can select ‘1973’ and the value of the drop-down list will show 1973 (replacing [multiple values]).

![Multi Edit tags dialog](image)

The next figure shows the grid behind the Multi Edit dialog so you can see the Year column with one track with no year value:
To save the dialog data to every column of every selected row in the grid:

Click ‘Save’

**NOTE:** MMH never saves to any column if its dialog column value is ‘[multiple values]’. The original values remain in the grid.

For all other values: For each column, its value for every selected row is updated to the value in this dialog for its column.

In the example above: The Artist textbox value is saved to the Artist column in the grid. No data is saved to the Title column in the grid.

### Renaming the Chapter files:

After you have changed the grid by a MusicBrainz lookup, a Copy & Paste or a manual data entry.

Ensure the ‘New Name’ column look ok. This is normally the track title.

**NOTE:** For Music Concert videos in Kodi only the File Name (based on the song title) is required to generate NFO files for the Kodi Music Video library. All other tags are ignored by Kodi, except that AlbumArtist and Album are used to pre-fill the MMH Concert Scraper’s lookup.

You are now ready to rename your new files:

### Renumbering Files:

Sometimes you may wish to add a Disc Number prefix to all the files in a folder to help breakdown a large compilation or music concert.

MMH’s normal file naming is in the form shown below with a two-digit track prefix added:

TrackNo. Title - example: **01. My First Track’s Title.mkv**
NOTE: MMH uses a two-digit track prefix if the number of files in the grid < 100. If the number of tracks in the grid >99, MMH uses a 3-digit track prefix (example for > 100 files: 001. My Track’s Title.flac)

Disc Numbering:
Setting the ‘Disc No’ in the toolbar adds a disc prefix to the file name. Setting a Disc No. to ‘1’ gives [DiscNo].[TrackNo]. [Title] - example: 1.01. My First Track’s Title.mkv

This tool supports selecting specific tracks in the grid, using Windows CTRL-Click, SHFT-Click (range) etc and renumbering only the selected files. This enables users to select groups of tracks and adding or changing the Disc prefix. This also enables users to convert each disc in a multi disc set more easily, ensuring each disc’s files have unique file name prefixes for files sorting/grouping.

Renaming the files:
While working in the dialog, changing data etc, the files are not yet renamed; you are just setting the new names you want.

NOTE: MMH will automatically check for illegal characters in the proposed new file names (characters that are not allowed in Windows file names). If any exist, you will be warned and shown which new file names need to be edited.
When you have your new names set as you require:

Click: ‘Rename’ button to rename all the chapter files to your new names.

If the Renaming is successful, you will see a dialog asking if you want to create NFO files for Kodi or create XML sidecar file for JRiver.

**NOTE:** MMH defaults to the Kodi NFO option unless the option ‘Create/Update JRiver XML tagging files’ is ticked.

If you are creating Kodi NFO files, another dialog pop up asking if you want to Scrape the concert online using the MMH Concert Scraper. This will search The Movie Database and find additional data about the concert and image art for the Poster, Fanart and performers if available (see the ‘Concert Scraper’ section later in this document for more information):

(loading Scrape documentation)

If you click: ‘No’, MMH will open a dialog to allow you to edit the Concert/Music Video NFO file information. It initially gets the Artist, Concert Name and Year from ‘Split and Rename’ grid (if it can):
Depending on the JRiver XML file option either the NFO files (for Kodi) or XML files (for JRiver) will be created for each video file in concert folder from the data in this dialog and the file names and is formatted like these examples:

**Kodi NFO file (minimum data version):**
```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<musicvideo>
    <track>2</track>
    <title>02. Rock n Roll Train</title>
    <artist>AC/DC</artist>
    <album>Live At River Plate</album>
    <genre>Hard Rock</genre>
    <year>2009</year>
</musicvideo>
```

This file provides the Kodi Music Video Library with the metadata to group the music videos into Artist and Album and gives Kodi the track sequence (for the albums' tracks).

**JRiver XML file:**
```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<MPL Version="2.0" Title="JRSidecar" PathSeparator="/">
    <Item>
        <Field Name="Album Artist">AC/DC</Field>
        <Field Name="Album">Live At River Plate</Field>
        <Field Name="Date">40907</Field>
        <Field Name="Track ">#">2</Field>
        <Field Name="Artist">AC/DC</Field>
        <Field Name="Name">02. Rock n Roll Train</Field>
        <Field Name="Genre">Hard Rock</Field>
        <Field Name="Comment"></Field>
    </Item>
</MPL>
```

This file provides the JRiver Library with the metadata to tag the music videos with Artist, Album etc and gives JRiver the track sequence (for the 'albums' tracks).

**INFO:** There is feature ‘Add Chapters to MKV’ to enable users to add chapters to MKV Concerts that don’t already have chapters and can’t be split in song files.
If you are using Kodi or JRiver you just need to copy the new (split) MKV files and NFO (Kodi) or XML files (JRiver) to one of your Music Video source folders and ‘Scan’ its contents into the Kodi Music Video library or ‘Import’ into the JRiver library. Not all skins support Music Video views in Kodi. I use Aeon Nox Silvo.
Batch Split MKV Files:

Functionality:
This tool enables you to Split multiple MKV files (with Chapters encoded) into individual MKV files, one file per chapter but unlike the first tool you can select multiple files and each is Split in a batch mode (all at once).

This tool is useful if you have many MKVs to split as you can run unattended. This Tool also gives additional options for using a Temporary Folder for your conversions which is faster if your Source MKV files are stored on a NAS and you have a slow network connection.

This unlike the previous ‘Split and Rename Chapters’ dialogue this ‘Batch Split’ only creates Chapter files. You would need to go back and Rename the chapters using the previous tool once split. Since Splitting an MKV can take time and it does not require any input from a user (apart from selecting the MKVs to Split) this may be useful if you want to split multiple MKVs.

It is recommended you create a separate folder for each MKV you wish to split and copy each source MKV file into each folder prior to running this batch tool

Batch Split Walk-Through:
Splitting Multiple Concert Video files:

In this scenario we will assume you already have a few Concert MKV files containing the entire concerts in single MKV files.

Firstly, ensure each MKV is in its own folder named in this format: ARTIST - CONCERT NAME and you have copied your Concert MKV files into each folder.

Click: ‘Batch Split MKV Files’ from the Launcher dialog. The following dialog appears:

The ‘Add Files’ button allows you to select individual ‘Source’ MKVs to be split
The ‘Add Sub Folders’ button allows you to select a single ‘parent’ folder and MMH will recursively scan all the sub-folders and load all MKV files it finds.

With either method (above) the MKV files are added to the list for batch splitting and will show the number of chapters found in each MKV file. MMH will not allow you to Split an MKV with 1 or less chapters (for obvious reasons).

You can remove selected MKV files from the list or Clear the list using the appropriate command buttons. MMH will ignore any MKV files with less than 2 chapters.

By default, MMH uses each Source MKV’s folder as its working folder.

**NOTE:** You should ensure there is enough spare disk space for the new Chapter files. All the chapters (together) will require the same disc space as the original Source MKV.

To Split all the Source MKVs in the list (that have more than 1 chapter):

Click: Split MKVs

MMH will pop-up a dialogue on completion showing the total time to Split all the selected MKVs. You can experiment with a Temporary Folder (see next section) to see if one of those options will provide better performance, particularly if you are splitting over a network or to a slow USB drive.
**Batch Split Preferences:**
The ‘Preferences’ toolbar menu on the ‘Batch Split MKV’ dialogue allows users to set a Temporary Folder:

This is the default settings:

![Batch Split Preferences Default Settings](image1)

Here is a typical user setting:

![Batch Split Preferences Typical Setting](image2)

The fastest method will always be using your fastest (high performance drive, such as an SSD drive). You may need to experiment to find the best set of preferences for your infrastructure (network, drives, processor etc.)

When your batch split is completed use MMH’s ‘Rename & Tag’ tool to rename and tag your files and to create NFO files for Kodi or XML files for JRiver if required.
Scrape Concert Folders:

Functionality:
This tool enables you to do the following:
- Download Concert Video Poster/Cover & Fanart Images, you can choose which one to use.
- Download the Concert’s metadata from The Movie Database.
- Create Kodi NFO files for each video file in the scraped folder (adds files to Kodi’s Music Video library) or Create XML sidecar files for JRiver (adds tags to JRiver’s video library).
- When creating Kodi NFO files, include additional Concert metadata tags including performers and their image urls, concert outline etc. MMH will add this metadata and links to the NFO files.
- If you have multiple supported video files in your concert folder (if have split your concert into individual song files) MMH will create NFO files for all video files automatically.

NOTE: When using MMH’s ‘Split & Rename Concerts’, after you have tagged the newly created files, MMH asks if you would like to Scrape the concert. If ‘Yes’ is selected, MMH starts this tool and passes the Artist and Concert names to this ‘Scrape Concert’ tool so you don’t have to re-enter this data to scrape.

NFO files are used in Kodi to import Music Video artists, ‘albums’ and tracks into its Music Video library (database) for playback through Kodi’s Music Video user interface which allows searching/grouping by Artist, ‘Album’ and playback of individual ‘tracks’ (or files with a matching NFO file).

XML files are used in JRiver to import additional tags into Video Library. MMH defaults to creating NFO files for Kodi but you can check the ‘Create/Update JRiver XML tagging files’ if you are using JRiver Media Centre.

NOTE: There is also an option in the ‘Batch Creation Tools’ dialog that runs this single Scrape dialog on all the concert sub-folders recursively which is a little faster and easier than running this single Scrape dialog manually on each concert folder. The Batch Creation tool has options to auto Scrape, auto Save and not to re-scrape concert folders already scraped etc

It is highly recommended you Rename your video final output files to the song name prior to auto generating your NFOs. Please see the MMH Tools: ‘Rename/Tag Media file’ and ‘Split & Rename Concerts’.

Kodi NFO files:
As at Kodi 19 the only way to get your Concert videos into Kodi’s Music Video Library is to provide an accompanying NFO file for each music video file. This NFO file (an xml file text file) contains data about the concert, artist etc.

The minimum data is: Artist & Concert Name (album) and video files should be named in the correct song title and track sequence file sort order.

The MMH Music Video Scraper can attempt to fetch additional data about the concert. A description outline, its release year, performers and images etc. If you do not want or need this extra data and images and just want to auto create NFOs then you can. This tool will also create auto-generated NFO files for all your folder’s video files by entering just the Artist and Concert Title in the ‘Concert Tags (Mandatory)’ text boxes, you do not need to scrape, just click ‘Save NFOs’. MMH will then create all the NFO files for all supported video files in your selected folder using each file name as track name and the file name sort order to generate the sequential Track number. Done. Now just Scan into Kodi’s music video library in Kodi.
**How to Scrape Concert folder:**

The following dialog appears for you to select an existing concert folder to containing concert video files Scrape:

Select your concert folder to scrape, then:

Click: ‘Ok’

MMH will now pop up its ‘Scrape Concert’ dialog:
If a user starts this tool from the Launcher dialog and select a folder to scrape the concert’s folder name is used to pre-enter the Artist and Concert names ready to scrape and to pre-fill text boxes in the ‘Concert Tags (Mandatory)’ section (see previous screen shot).

**NOTE:** The concert folder name should be in the format: ARTIST - CONCERT NAME to support this pre-enter feature. If there is a year suffix in brackets ‘(NNNN)’ is removed as The Movie Database (TMDB) website does not use the year in its search.

If you first use MMH’s ‘Split & Rename Concerts’ tool to split a concert video with chapters into individual song files and rename the song files using the MusicBrainz, MMH will offer Scrape the concert and this dialog opens with the Artist and Concert names pre-filled.

You can manually edit/enter a new concert search name if required or if your folder name is not found on the in a scrape search.

**NOTE:** Only the ‘Scrape Online’ text box values for Artist and Concert name are used to do the online search. The ‘Concert Tags (Mandatory)’ area is not used for the search. Those values will be used when you save your data to create NFO files.

To change Concert search text, enter or change values in both the Artist and Concert Title textboxes in the ‘Scrape Online’ area. You can change pre-entered information at any time (especially if the Scraper does not find a match - The artist and concert title need to match The Movie Database very closely).

**NOTE:** If you already have a ‘folder.jpg’ or ‘fanart.jpg’ files in your selected concert folder they will appear in the ‘Selected Art’ image gallery at the left bottom of this dialog.

**NOTE:** If you open a concert folder that already contains an NFO file, this dialog will pre-fill the ‘Scrape Online’ and Concert Tags (Mandatory)’ areas with data from the existing NFO files, overwriting any values found by looking at the folder naming.

**To Scrape:**

Click: ‘Scrape’ button

If a match is found, all the matching releases are added to the Release list box (in the ‘Scrape Online’ box). If there is only one release MMH displays all the scraped metadata on the right and downloads Poster, Fanart and Performer images into the image gallery on the left side (adding to any existing images you may have in your concert folder or previously Scraped for your concert):
If there are multiple releases found for the Concert you need to select a release in the Releases list box to view metadata and images for the selected release.

**About the Music Video Scraper dialog:**

**The dialog is split into two main sections:**

1. Scraping & data on the right side: A ‘Scrape Online’ area to do your online search and two ‘Concert Tags’ areas to display the metadata returned from a successful search. The ‘Concert Tags (Mandatory)’ area is used for a data entry or to modify those tags in the final NFOs created by ‘Saving’.

2. Concert Images on the left: The top section has 3 tabs that will show all the available images found sorted into Posters, Fanart and Performers groupings. The bottom ‘Selected Art’ image gallery shows current images selected for the concert (either local files found in the concert folder or default images if a user has previously performed a Scrape).

**Save Options:**

- **Save NFOs**: Saves a ‘master’ data NFO file named ‘Concert.nfo’ (not used by Kodi) containing all the metadata in the Concert Tags list boxes, and also creates an NFO file for every music video file in the concert folder.

- **Save Art Only**: Any Poster or Fanart images in the ‘Selected Art’ image gallery are saved to ‘folder.jpg’ and ‘fanart.jpg’ files respectively to the concert folder.

- **Save All**: Combines both ‘Save NFOs’ and ‘Save Art Only’ above plus saves the Performer image URLs to the NFO for Performers in the ‘Selected Art’ gallery.
Auto Generation of Video File NFO files: Both these Save options automatically create a required music video NFO file (used by Kodi) for all video files in the concert folder selected earlier. The NFO files have the same file name as the video files but with an extension of ‘.nfo’. These music video NFO files inherit all tags from the ‘Concert.nfo’ file created from the ‘Concert Tags’ list boxes created initially in the save process. Each music video file also contains two additional tags not shown in this dialog used by Kodi:Track and Title (Kodi’s user interface uses Track to sort the concert files and Title is used as the track name displayed in the concerts track list.

**IMPORTANT**: Saving NFOs after Scraping an existing concert ALWAYS OVERWRITES the master ‘Concert.nfo’ file and all the music video NFOs in the concert folder. If you wish to use this tool to just edit NFO data, open the concert folder (this loads the existing concert.nfo data), edit the tags and click: ‘Save NFO’.

**Selecting Concert Images to use from those available:**
To select an image to use for your concert simple double-click on one of the images in the top galleries. The selected image will move from the top tabbed gallery to the bottom ‘Selected Art’ gallery.

Click on the Poster, Fanart or Performers tab to view images for those categories. The next screenshot shows the Performers tab selected (showing the Performer images found during a scrape):

NOTE: Kodi supports a single Poster and Fanart image for the concert and single image per performer.
When loading any image into the ‘Selected Art’ gallery to be used as either local files (folder.jpg or fanart.jpg) or NFO URL tags (Performers) MMH first checks if the selected image type already exists in the ‘Selected Art’ gallery, if it does MMH will move the existing select image from ‘Selected Art’ to the appropriate Poster, Fanart or Performer tabbed image gallery. Finally, the image just selected is moved to the ‘Selected Art’ gallery. At this point no data is saved to files, you are just selecting your preferred art prior to Saving this data.

**Editing the Concert Tag list:**

Users can edit the mandatory tags for Kodi by entering data into the ‘Concert Tags (Mandatory)’ area text boxes. You must enter data for Artist and Concert Title to create NFOs for Kodi. Year and Genre are recommended but only optional.

The lower right ‘Concert Tags’ list box contains all other tags that will be saved to the NFO files. This data is usually created by performing a ‘Scrape’ or is pre-filled from a previously saved NFO file in the current folder (if one existed from a previous scrape or a user already has NFO files in the concert folder).

**Editing a tag in the lower Concert Tags list:**

To Edit a Tag: Right-click on the tag to be edited. This pops up a context menu with various options.

Click: ‘Edit’ in the context menu

OR: You can simply double-click on the tag.

The Tag editor dialog opens:

Go ahead and enter the new data.

Click: ‘Save’ to save the data back to selected tag

The Tag editor auto sizes to display the tag data, here is an Artist tag:
NOTE: Performer roles in TMDB are often ‘self’ (i.e. musicians play themselves). This dialog allows users to change their role in Kodi to be the musical instruments used. You can also find your own artist image you prefer online and can paste the URL here so Kodi will display your specific profile image.

Adding a new Tag:
To add a Tag: Right-click on any tag. When the context menu pops up

Click one of the three new tag option:

- Add Performer
- Add Genre
- Add Simple Tag

Enter the required data, then click ‘Save’ to add the new tag (new tags are always appended to the list)

A Simple Tag can be any tag you like. Kodi supports user tags named ‘tag’ so users could decide to tag your favourite music videos they’d like to find later with a new tag of:

TagName: ‘tag’
TagValue: ‘Favourite’

For the geeks that will create an XML tag in the NFO like this: <tag>Favourite</tag>

NOTE: Kodi only consumes a pre-defined list of tags. Any tag not supported will be ignored. Use a tag name of ‘tag’ shown above to create a tag you can use in Kodi. Any other Tag Name must be predefined. See the Kodi Wiki)

Since genre and performer are commonly added there are built in options to create those tags. Additionally, some tags cannot be included multiple times: artist, album, title etc so MMH will check when saving a new tag and will warn users when attempting to create unsupported duplicate tag names.

Supported multiple tags in a NFOs by MMH are:

- genre
- actor (called Performer in MMH but created as ‘actor’)
- director
- studio
HINT: The MMH Video Batch tool can batch Scrape concert folders (see next section)

How to get Concerts into Kodi’s Music Video Library:
Once you have a concert in its own folder with its video files AND NFO files have been created by one of the ‘Save’ options:

Ensure you have created a Root Music Video folder on your media drive (a USB Drive or on a NAS) and that you have added this folder to Kodi’s as a Video Source. (In Kodi’s System, Setting, Media screen). **You must set the Source Type to ‘Music Videos’**. With this root folder set as music videos Kodi will add video files (with an NFO) to the Kodi Music Video library. You only need to do this once for each new Source.

Copy the Concert folder you have been working on (I rip and setup files on my PC, then copy to my NAS), copy the folder to your Kodi Source Music Video folder on your media drive (a USB Drive or on a NAS).

Scan the Kodi Video Library (Music Videos are of type ‘video’, they are not ‘music’ as they are not audio only – in the Kodi database world)

After the scan you Concert will appear in the Kodi Music Video menu, navigate from ‘Artist’ down.
Batch Creation Tools (Music Videos):

Functionality:
These tools enable you to do the following:

- Batch Scrape all sub-folders under a selected Source folder to get concert data and art online.
- Batch Create an M3U Playlist file for every concert sub-folder, each concert has a single Playlist with all songs.
- Batch Create NFO files for Kodi or XML sidecar files for JRiver for all sub-folders under a selected folder for all music video/concert files.

These tools are ideal for users that already have music videos and just want to create NFO files for Kodi and/or M3U playlists to play their music videos.

Why create M3U playlist when Kodi can play music videos without M3U playlist? Some of the Kodi remote apps for smartphones and tablets cannot play music videos, but they can play playlist!

IMPORTANT: To help automate the NFO & XML creation feature the MMH music video scraper expects all Music Concert Folders to be named with the format: ARTIST - CONCERT NAME (YEAR). However, if MMH cannot parse and find Artist, Concert name or Year you can still enter this data into a dialog that pops up if the Artist and Concert Name cannot be found.

In recent versions of MMH, for each sub-folder if a file named ‘concert.nfo’ exists (this file is created by MMH to hold data about the concert), then MMH ignores the folder naming and just reads the Artist, Concert Name, Year, Genre from the concer.nfo. In this case all media files in that folder have NFOs created automatically (no user data entry).

A NFO file provides the Kodi Music Video Library with the metadata to group the music videos into Artist and ‘Album’ and gives Kodi the track sequence (for the albums tracks). If using JRiver there is an option to create JRiver sidecar XML files instead of NFO files. These XML files add additional tags to the JRiver library for video files.

M3U Playlists are supported by Kodi and many other media players. For Kodi, if you copy an M3U playlist to either of these Kodi Userdata folders you can play video playlist:

- UserData\Playlists\Video
- UserData\Playlists\Mixed

Batch Creation:
Click: ‘Batch Creation Tools’ from the Launcher dialog.

This displays the Music Concert Batch Tools dialog:
Select a ‘Source Directory’. This is the Root Folder for you Music Concerts. The processing will occur on ALL sub-folders from the selected Source Directory (Parent folder) down.

Click: ‘Browse’ and select a Root folder for your Music Concerts

Once a Source Directory is selected, select one of the radio button batch options:
- Scrape Concert\Music Video sub-folders (this is semi-automated and calls the ‘Scrape Concerts’ tool)
- Create M3U Playlists for all Concert\Music Video sub-folders
- Create NFO files for Kodi or XML sidecar XML files for JRiver for all Concert\Music Videos in sub-folders

**Batch Concert Folder Scraping:**
This mode runs the MMH tool ‘Scrape a Concert Folder’ recursively on all sub-folders. Please refer to the section in this document describing the functionality.

Once the mode is selected you can enable options for the upcoming batch process:
• **Automatically Perform a Scrape:** With this enabled MMH will attempt to search online automatically if it can find enough data to do so. If the folder has never been scraped previously, it will attempt to find ‘Artist’ and ‘Concert Name’ from the sub-folder name. If it has been scraped previously, by reading the existing ‘concert.nfo’ file to get the data.

If the above option is enabled:
• **Only Auto-Scrape Concert folder NOT previously scraped:** With this enabled MMH will not auto-scare folders already done, but instead just load the existing NFO data into the Music Video Scraper dialog for user to view, edit, choose new art, or do a manual Scrape.
• **Auto Save after successful Scrape:** With this enabled if the Music Video Scraper dialog will auto ‘Save All’ if there’s enough data to create a minimum NFO file for Kodi.

**NOTE:** If you use Auto-Save MMH will keep and folder image file unchanged (folder.jpg and fanart.jpg) if they exist but auto those images if they don’t exist and auto select Performer images (if found in the Scrape).

**IMPORTANT:** Saving NFOs after Scraping an existing concert ALWAYS OVERWRITES the master ‘Concert.nfo’ file and all the music video NFOs in the concert folder. If you wish to use this tool to just edit NFO data, open the concert folder (this loads the existing concert.nfo data), edit the tags and click: ‘Save NFO’.

To go ahead and batch Scrape all you Concert folders:

Click: ‘Start Processing’

MMH will recursively process every sub-folder from the selected Source Directory.

**NOTE:** You can Cancel Batch processing at any time

**Batch Play List Creation:**

**NOTE:** You should set your Playlist path naming Preferences from the preferences dialog (see later in this document) before using the ‘Create M3U Playlist for all’ option.

**NOTE:** If a folder contains a single MKV file and a CUE file, MMH will create an M3U file playlist from the contents of the CUE file

If you are using Kodi there is an option to set the Kodi Userdata Folder path. If this is set the after all the Playlist files have been created MMH will copy all those files to the folder selected like the following screenshot:
NOTE: If you are using another device for Kodi (e.g. CoreELEC or LibreELEC device) you may have to manually enter the Kodi UserData path if your Windows Explorer does not display it in your ‘Network’ devices.

NOTE: The folder you select should be either the ‘..\userdata\playlists\video’ or ‘..\userdata\playlists\mixed’ folder on your Kodi device.

To go ahead and create all your Concert or Music Video playlists:

Click: ‘Start Processing’

This is very fast!

MMH will recursively process every sub-folder from the selected Source Directory creating either:

- Create an M3U Playlist for each Concert Folder (always saved into the Source Directory – each Playlist is named after the Concert Folder and contains every concert’s video files in each playlist)
If there is a valid ‘Kodi UserData Folder’ set (and your PC can connect to it), MMH will copy all the Playlists to that folder. There is also an option to delete the created m3u files on the Source after copying to the Kodi folder.

Creating NFO (Kodi) or XML (JRiver) tag files:
If you choose to create NFO or XML tag files with the Batch Creation (Videos) tool MMH will pop up a Concert Info dialog for you to confirm each concert folders contents if your concert folder does not already have a file ‘concert.nfo’ created by MMH in a previous NFO creation task from Concert Scraping or Tagging. If the nfo file does exist, MMH reads the Artist, Concert Name, Year and Genre from the ‘concert.nfo’ file.

MMH will recursively process every sub-folder from the selected Source Directory and Create an NFO metadata file for all Concert folder’s video files recursively.
If MMH cannot find enough data (from the folder name or ‘concert.nfo’ file) to get Artist, Concert Name and Year MMH will pop-up a dialog for users to enter this data. These fields will be blank. Just go ahead and enter the information requested (or edit the data if not correct or what you want to see in either Kodi or JRiver):

When you save this information about the folder’s contents, MMH saves this data to a special file named ‘concert.nfo’ (an XML file). The next time you create NFOs or XML files for the current folder being processed MMH will read this data from the ‘concert.nfo’ file (if it exists) saving you from having to enter the information again.

When doing a batch process (creating NFO/ or XML files for all sub-folder recursively) this dialog pops up for every folder that it processes, unless an option is set to only show when there is missing data:

NOTE: In the main Batch Creation tools (videos) dialog there is an option to stop MMH from popping up this Music Information dialog above, if all the data is already entered for the current folder being processed:
This is also one place to set whether you wish to create JRiver sidecar XML files instead of NFO files.

You can stop processing all the sub-folders by clicking [Cancel Processing].

**Playlist Preferences:**

This dialog sets the music file path format in the saved playlists. The example settings are for a LibreElec/CoreElec (Linux based) Kodi system with music files stored on a NAS/Server:

- **Music File Path Format in Playlist:**
  - Use Forward Slashes (not Back Slashes) for folder paths
  - Use Absolute or Relative paths: Absolute
  - Remove Drive
  - Example: /Music/AlbumFolder/SongFile.flac
  - Get Track Duration on Saving playlist (slower)

- **Copying Playlist Files - Copied File Options:**
  - Re-Tagging:
    - Re-Tag Album Artist to Various Artists
    - Re-Tag Song Title to Include Artist Name
    - Re-Tag Track Number
    - Re-Tag Album Name to Playlist Name
  - File Renaming:
    - Re-Number File Name
    - Rename Files to Include Artist Name
    - Example: 01. Artist Name - Song Title.flac

**NOTE:** For Kodi files on a separate device (not your Windows PC, e.g. a LibreElec/CoreElec Media Player) NAS or Server you can use `advancedsettings.xml` to convert your Windows mapped drive paths to ones used on your Kodi device.

Example: Here is my Kodi advancedsettings.xml nodes for my LibreElec NUC to convert my Windows PC paths created in the Playlist Editor to paths used by my LibreElec Kodi & NAS using Kodi’s `pathsubstitution`:

```xml
<pathsubstitution>
  <substitute>
    <from>/MediaBackup/Audio_Surround/</from>
    <to>nfs://192.168.1.6/volume1/Volume1/MediaBackup/Audio_Surround/</to>
  </substitute>
</pathsubstitution>
```
HINT: If your music media source(s) is located on a USB hard drive plugged into a LibreElec or CoreElec (Linux based) media player your local Linux path to the drive is: /var/media/[YOUR DRIVE NAME]
Create/Edit Chapters in MKV:

Functionality:
This tool enables users to:
- Create Chapters in a MKV file without chapters
- Edit existing chapters, change chapter titles or start times
- Rename existing chapters for music releases from a Musicbrainz online lookup
- Change the Default audio stream for MKV files with multiple audio streams
- Create a CUE file to enable playback of specific chapters (songs)

Creating chapters is useful if you want to split an MKV concert or album into its songs (by chapter) using the MMH tool ‘Split & Rename MKV’ or extracting audio to FLAC and splitting into song files your Concert Video does not have Chapters.

Editing chapter start times can correct incorrect authoring of chapter times on some releases.

Users can also fetch chapter titles from the MusicBrainz online database if the MKV was created from a BDA or DVD Audio for an album or from a BDV or DVD Video of a concert release.

A CUE file can be created from the chapters for playback from the MKV track times and titles. This is ideal to add a MKV with chapters to the Kodi audio library or to the JRiver audio library. Both Kodi and JRiver adds each chapter and its CUE tags as individual album tracks in their respective audio libraries.

This tool can also change the default audio stream in any MKV. This is the audio stream that will be played by default by your playback application or device.

There are four methods supported setting the Chapter Names:
- Manually add chapters and enter the desired Start Time (for each song)
- Copy & Paste a track list from a simple text file
- Use ‘Get Tracks Titles from MusicBrainz’ to fetch the data from the online database (recommended)
- Copy & Paste a track list from the MKVMerge/www.chapterdb.org website’s text file (see below)

NOTE: The www.chapterdb.org website can also create chapters

This dialog only support chapter start times in the format: hh:mm:ss.sss (Hours, Minutes and Seconds separated by a colon ‘:’) 

NOTE: This feature will only create chapters in an MKV file that does not already contain any chapters.
Edit Chapters dialog description:
Click: ‘Edit Chapters in MKV’ from the Launcher dialog.

This displays the Chapter Editor tool dialog:

To get the existing chapter data, first load the MKV file into the MKV Chapter dialog

Click: ‘Open MKV/MKA file’

MMH reads the MKV or MKA file selected and loads the chapters, its current chapter name and duration into the grid.

The next screen shot shows the Chapter Editor dialog after an MKV file with chapters is loaded:
At the top, the current Default Audio stream is shown.

**HINT:** When an MKV with multiple audio streams is played its Default Audio Stream is played. Often Blu-rays are authored with the stereo track as the Default stream. For surround enthusiasts wanting to hear a surround stream it is recommended you change the Default to your preferred surround stream (e.g. Atmos if you have an Atmos system)

**Changing the Default Audio Stream in the MKV:**

To change the default audio stream:

Click: Audio Streams button at top

MMH will now pop up a dialog displaying all the Audio Streams in the current file so you can change the Default Audio Stream:
The current Default stream is highlighted (as shown above).

Select a new audio stream and click: Select (or just double-click on the stream in the list) to change the default audio stream. Click: Cancel to leave the existing default audio stream unchanged.

**Getting Chapter Titles from MusicBrainz:**

**NOTE:** Only music albums and concert data are available on MusicBrainz. Ignore this section for Movies.

To get the chapter titles from MusicBrainz:

Click: ‘Get Titles from MusicBrainz’

The MMH Musicbrainz Tagger pops up:

Enter the Album Artist and Album Name (For Concert videos enter the release title):

Click: ‘Find’

If the Artist name is unique MMH will attempt to download matching releases from the MusicBrainz database. If there are multiple artists with same names you will need to select the artist to use.

If the Artist and Album names match a release(s) you will see dialog populated with release data.

Find the desired release from the Releases list box and select it. The Track List will be populated from the selected release. If the release has multiple discs (e.g. a CD and a DVD or Blu-ray or two DVDs etc) the Discs list is shown with a list of its discs. Select the desired disc to see the disc’s tracks. If the release has only one disc, no disc list is displayed):
Click: ‘Copy Tags’ to copy the Track List to the MKV Chapter Editor dialog

HINT: Often concert video discs (both BDV and DVD) will have short intro chapters and/or short outro chapters. Copying the tags may mean the tracks list is not correctly aligned in the Chapter Editor’s grid. If this is the case, you can use ‘Copy Track Titles to Edit’. This feature allows you to add new track titles, remove them and even change the names. When you save that edited list it copies the new track list back to MusicBrainz dialog, overwriting the track list found in Musicbrainz.

You will now see the track titles in the Chapter Editor:
There are two main options moving forward:

Click: ‘Save’ to save the New Name column to the Chapter names in the MKV or MKA file (the dialog will exit)

Or:

**Saving a CUE file for your MKV/MKA file:**

After loading chapters into your Chapter Editor and naming the tracks (previous section)

Click: ‘Save Cue’ to create a CUE file for the MKV/MKA file selected with the chapter titles included.

If you save a Cue file, MMH will pop up a dialog to collect further data about the album or concert release to include in your CUE file:

If you have just fetched data from Musicbrainz this dialog will be pre-filled with this data (as above). If you have not used Musicbrainz or the search found nothing you will need to enter this data which will be saved to the CUE file.
Adding Chapters to an MKV without Chapters:

Click: ‘Edit Chapters in MKV’ from the Launcher dialog.

To add chapters, first select an MKV file (that does not have chapters):

Click: ‘Open MKV’

This pops up a dialog asking you to select an MKV file:

Click: ‘Open’ or double-click on the desired file

Let’s describe the first method of adding Chapters:
Manually Adding Chapters & Start Times:

To manually add Chapters:

Enter the Number of Chapters in the ‘Number of Chapters’ numeric up/down control (or click up or down to increase/decrease the current number. Then:

Click: ‘Apply’ to set the number of chapters entered

Now you need to enter each Chapter Name and its start time (always absolute meaning 00:28:05 is 28 minutes and 5 seconds from the beginning of the video).

Typically, the first chapter will begin at 00:00:00.000 but it’s possible to cut out the intro and start at the first song (e.g. first chapter at 00:02:00.000).

The Start Time column is a masked input allowing only valid time entry:

The New Name column allows you to manually enter the chapter/song name. (of course you can manually copy & paste a text string into either column, but the Start text must be in the hh:mm:ss.sss format)

**HINT:** When entering Start times in the grid cell you can use the space bar to move to next time field (e.g. When entering minutes hit space to move to seconds etc)

Typically, you could view your MKV in something like VLC Media Player to find the time at which each song starts, entering that into the dialog’s Start Time field for each song.
Adding Chapters & Start Times by Copying from the Clipboard:

MMH supports two text formats copied to the clipboard: (You do not need to set the number of chapters like you have to for manual chapter creation. MMH will auto add all the chapters from the clipboard)

Simple Format:

Just a list of chapter names, one line per chapter. This also supports the Start Time if it is appended to the Chapter Name (but separated with a bar ‘|’ character) as per the example below:

Intro|00:00:00.000
One Way or Another|00:01:14.000
Rave|00:05:03.000
Hanging on the Telephone|00:09:19.000

If the Start time is not included MMH will only add the Chapter Names, not the Start Times and you must manually edit the Start Times in the dialog after it is pasted from the clipboard.

To copy & paste a Simple Format simply open the text file you have with the chapter/track list, highlight all the text, and copy (CTRL-C), now in the ‘Create Chapters’ dialog:

Click: ‘Paste from clipboard’

<table>
<thead>
<tr>
<th>Chapter</th>
<th>New Name</th>
<th>Start (Hh:mm:ss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro</td>
<td>00:00:00</td>
</tr>
<tr>
<td>2</td>
<td>One Way or Another</td>
<td>00:01:14</td>
</tr>
<tr>
<td>3</td>
<td>Rave</td>
<td>00:05:03</td>
</tr>
<tr>
<td>4</td>
<td>Hanging on the Telephone</td>
<td>00:09:19</td>
</tr>
<tr>
<td>5</td>
<td>Mile High</td>
<td>00:13:14</td>
</tr>
<tr>
<td>6</td>
<td>Call Me</td>
<td>00:17:21</td>
</tr>
<tr>
<td>7</td>
<td>Take Me In the Night</td>
<td>00:23:05</td>
</tr>
<tr>
<td>8</td>
<td>Maria</td>
<td>00:25:48</td>
</tr>
<tr>
<td>9</td>
<td>Euphoria</td>
<td>00:31:30</td>
</tr>
</tbody>
</table>

MMH creates a Chapter entry for each of the text lines from your clipboard and if the text contains the Start Times then they are also copied for each chapter.

MKVMerge and Chapterdb.org website’s Format (both are same formats):

This format is a more complex text file list of Chapters and chapter Start Times in the following format:

CHAPTER01=00:00:00.000
CHAPTER01NAME=Intro
CHAPTER02=00:01:14.000
CHAPTER02NAME=One Way or Another
CHAPTER03=00:05:03.000
CHAPTER03NAME=Rave
CHAPTER04=00:09:19.000
CHAPTER04NAME=Hanging on the Telephone

With this text file format each chapter’s information is on two text lines, first the Start Time then the Chapter Name.
To copy & paste a MKVMerge/Chapter.org Format simply open the text file you have with the chapter/track list, highlight all the text, and copy (CTRL-C), now in the ‘Create Chapters’ dialog:

Click: ‘Paste from clipboard’

<table>
<thead>
<tr>
<th>Chapter</th>
<th>New Name</th>
<th>Start (hh:mm:ss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro</td>
<td>00:00:00</td>
</tr>
<tr>
<td>2</td>
<td>One Way or Another</td>
<td>00:01:14</td>
</tr>
<tr>
<td>3</td>
<td>Rave</td>
<td>00:05:03</td>
</tr>
<tr>
<td>4</td>
<td>Hanging on the Telephone</td>
<td>00:09:19</td>
</tr>
<tr>
<td>5</td>
<td>Mile High</td>
<td>00:13:14</td>
</tr>
<tr>
<td>6</td>
<td>Call Me</td>
<td>00:17:21</td>
</tr>
<tr>
<td>7</td>
<td>Take Me in the Night</td>
<td>00:23:05</td>
</tr>
<tr>
<td>8</td>
<td>Maria</td>
<td>00:25:48</td>
</tr>
<tr>
<td>9</td>
<td>Euphoria</td>
<td>00:31:30</td>
</tr>
</tbody>
</table>

MMH creates a Chapter entry for each of the text lines from your clipboard with the Start Times for each chapter.

**To Create new Chapters:**

Once the dialog chapter list completed (by manual entry or from the clipboard) to create the chapters:

Click: ‘Save’

MMH now runs mkvmerge.exe in a command window and the chapters are added into a copy of your original chapter-less MKV (in the same folder as the original MKV). Please do not close the command window, wait until it automatically closes on completion.

When completed, you will have a new MKV file with your added chapters. Now you can use the MMH tool ‘Split and Rename MKV’ to break your new MKV into separate concert song files named after the new chapter names you just added.
**Playlist Editor:**

**Functionality:**
This tool enables you to do the following:
- Create and Edit m3U playlists for both Audio and Music Video files (including mixing Audio & Video files)
- Copying the media files in any existing m3U playlist to another folder location or disc

The Playlist media supported should be all the common audio and video files supported by Kodi (FLAC, MKA, M4A, MP3, AAC, WAV, DSF etc for Audio and MKV, M2TS, VOB, AVI and MP4 for video).

**Playlist dialog description:**
Click 'Playlist Editor' from the Launcher dialog.

This displays the Playlist dialog:

![Playlist Editor dialog]

**Top menu options:**
- **File:** Allows you to open an existing M3U playlist file (you can add/edit/remove the contents)
- **Preferences:** Allows setting your Path preferences for the saved playlist files

**Command Buttons:**
- **Add Folder:** Adds all media files in the selected folder (to the end of current playlist)
- **Add Files:** Adds all selected files (to the end of the current playlist)
- **Add CUE:** Adds selected track(s) from a CUE file for a multitrack media file (e.g. file with chapters)
- **Remove:** Removes all selected files from the playlist
- **Clear:** Clears the playlist (Removes all)

The **Re-Order** buttons moves the selected file:
- To the Top of the playlist
- Up (one position)
- Down (one position)
- To the Bottom of the playlist

**Browse:** Sets the ‘current folder’ and location of the saved playlist

**Save:** Saves the current playlist

**HINT:** You can also drag & drop a selected file in the playlist to re-order your playlist

**HINT:** You can also drag & drop selected files from Windows Explorer into your playlist. The selected files will be added at the position you drop onto your list (example: Dropping 4 files on top of the 3rd song in your list will add the 4 new songs at positions 3, 4, 5 & 6 – moving the original 3rd song to position 7)

**HINT:** You can also add files to your playlist from the MMH ‘Media File Manager’ grid by double-clicking on any track in the track list grid

Adding from a CUE file pops up a list tracks to choose from, after selecting a CUE file. Double-click on a CUE track to add to the playlist.

**NOTE:** You can copy all the files from any playlist to another folder by using the [File] menu’s [Copy Playlist Files] command. This is equivalent to ‘exporting’ your playlist which can contain files from many folders into a single folder.

**NOTE:** If you open an existing playlist MMH checks each music file to see if it exists. If a file cannot be found it is highlighted. Since this is often due to changes in files names of album folder name, you can double-click on the missing file in the playlist and MMH will open a ‘select file’ dialog at album folder (if file does not exists but album folder does) or the artist folder (if the album folder does not exist)

Example Music (Audio) playlist:
Example Music Video (Concert) playlist:

![Playlist Editor](image)

**HINT:** When selecting files from the Open File Dialog you will need to change the default files type option in the dialog from Audio to Video.

**NOTE:** The Artist name is found from the ‘Artist’ tag for audio files that are tagged. If the file is not tagged or it is a video file MMH attempts to get the Artist name from the folder structure. The expected folder structures are based on Kodi’s recommended folder structures:

- Music (audio only): `\ARTIST\ALBUM_NAME\files`
- For music videos (concerts): `\ARTIST - CONCERT_NAME\files`

MMH automatically checks for duplicate songs in the current playlist when saving and warns if any duplicate songs are included (you can still save the Playlist with duplicates if you wish).

**Copying Playlist Media Files:**

After you have opened and existing playlist or added files to a new playlist the ‘Files’ toolbar menu command ‘Copy Playlist Media Files’ is enabled. This command allows users to copy all the media files in the current playlist to a new folder. (Maybe you wish to copy the playlist to a USB stick to play in your car, for example).

By default, the media files are copied ‘as is’. The Playlist Preferences dialog gives various options to:

- Retag the copied files.
- Rename the copied files (Include Artist name in file name etc.)
- Renumber the copied tracks (sequentially in the playlist order – both file name and track tag)

**NOTE:** These options affect copied files only – original playlist files remain unchanged.
Playlist Preferences:

The ‘Preferences’ menu option in the Playlist Editor’s menu enables setting of preferences:

Music File Path Format:
These options set the path information in the saved playlists which is useful if your playlists will be used on another device that does not use your PC’s Windows paths.

NOTE: For Kodi files on a separate device (not your Windows PC, e.g. a CoreELEC or LibreELEC Media Player) NAS or Server you can use advancedsettings.xml to convert your Windows paths to ones used on your Kodi device.

Example: Here is my Kodi advancedsettings.xml nodes for my LibreElec NUC to convert my Windows PC paths created in the Playlist Editor to paths used by my LibreElec Kodi & NAS using Kodi’s pathsubstitution:

```xml
<pathsubstitution>
    <substitute>
        <from>/Audio Surround/</from>
        <to>nfs://192.168.1.6/volume1/Volume1/Audio Surround/</to>
    </substitute>
    <substitute>
        <from>/Music Video/</from>
        <to>nfs://192.168.1.6/volume2/Volume2Music Video/</to>
    </substitute>
    <substitute>
        <from>/Audio Stereo/</from>
        <to>nfs://192.168.1.6/volume1/Volume1/Audio Stereo/</to>
    </substitute>
    <substitute>
```
Copying Playlist Media Files – Copied File options:

This preference section provides two option groups/types:

- Re-Tagging
- File Renaming

**NOTE:** These options effect Copied media files only – original playlist media files remain unchanged
**Media File Manager:**

**Functionality:**
This tool enables you to do the following:
- Create a list (and report) of all your media files (including audio sample/bit rates and video resolution)
- Selectively Copy any media to another folder or disc (Destination)
- Selectively Delete any media already on a Destination disc

The feature supports any source type including Audio only (Music), Music Videos, Movies and TV Series. It gives best results when a user has tagged music and video files as MKVs, MP4s etc but can attempt to provide a listing of movies and music stored as ISOs and disc folder structures based on the ISO/Disc Folder names.

I developed this for three reasons:
1. I wanted an automated/updatable list of all my media.
2. I have a ‘master’ disc on my PC for all my music which includes quite a few duplicate versions of the same album (e.g. remastered, CD, Vinyl, DVD-Audio etc.) but I only want to have one version on in my Kodi Library)
3. I often travel and have a small media player and a portable USB drive. So, I want to manage what music, movies and TV Series I copy to the USB drives for my various trips away.

These are all made easier by using this Tool.

**Media File Manager dialog description:**
Click: ‘Media File Manager’ from the Launcher dialog.

This displays the Media File Manager’s dialog:

Initially most the commands are disabled until you ‘Add Sources’ and ‘Scan’ the Source folders for media content.

‘Sources’ in MMH can be any of the following categories (Source Types):
- Music (Audio Only)
- Music Videos
- Movies
- TV Series
You can add as many Source folders as you like as you may have multiple root folders or disc drives for Movies etc.

To setup your Sources:

Click: ‘Sources’ on toolbar menu at the top of the Media File Manager’s dialog (previous screen shot)

This pops up the ‘Media Source Folders’ dialog where you can add/remove source folders:

To add a ‘Music (Audio)’ Source folder to the File Manager Source Folders list:

Click: ‘Music (Audio)’ command button

This brings up a folder selection dialog where you can select the Root folder for your Audio Music sub-folders:

Click: ‘OK’ to save the new Source as a ‘Music (Audio)’ source
The Sources dialog will then show the new Source Folder:

You can add as many as you like. You cannot use any media in the Media File Manager without adding its Root folder to the Sources dialog as a Source Type. Once you have added your sources:

Click: ‘Save’ to save the sources

NOTE: The Source List is saved and will automatically reload the next time you open Media File Manager

Saving and Importing Sources from a text file:
The Media File Manager feature also enables users to save their Sources to a text file and Import Sources from a text file. It must include the first line header: Folder Name|Media Type. Each source is written on one line in the format: SourcePath|SourceType (separated by a bar character ‘|’).

An example of the supported text format is shown below (first line is a ‘header’ showing data format).

Folder Name|Media Type
X:\Audio Surround|Music
P:\Music Video|Music Videos
M:\Movies|Movies
N:\Movies|Movies
O:\War Movies|Movies
T:\TV Series|TV Series

NOTE: The ‘SourceType’ (Media Type) must be one of the following:

- Music
- Music Videos
- Movies
- TV Series

The ‘File’ menu of the Source dialog (above) has two menu options to Save your current Source List to a file or to Import a Source List from a file. To import a Source List file (formatted above) it must have a file extension of ‘.csv’.
Scanning Your Sources for Media:
Any time after you have defined your Sources you can select a ‘Source Type’ from the Source Type dropdown list which is only enabled once you have added Sources (you have at least one Source):

Select a Source Type from that combo (above) and now many of the controls are enabled:

To load the grid with all the media for the selected ‘Source Type’ in previous screenshot:
Click: ‘Scan Source’ (button)

MMH goes ahead a scans the Source Folders that are ‘Music’ sources and loads them into the grid:
In the screenshot above the checkbox option ‘Get Video & Audio Codecs (Slower)’ has been enabled so with this option the grid shows the ‘Codec’ data (Audio Channels and sample rates).

For Music (Audio), Music Videos and TV Series the grid also shows the number of media files in each folder (‘Tracks’ column above for Audio folders).

For video sources an additional column named ‘Resolution’ is added showing the video resolution of the files (e.g. 1920x1080 etc.)

For Audio files the grid shows the Tagged Artist and Album Names, Year and Comment tags.

The ‘Hide Columns’ checkbox hides predefined columns more suitable for Export/Print of your media lists.

‘Add Tracklist to Grid’ checkbox adds each album’s track tags to the grid. This slows the scanning process and is not required to get a album report, but may be useful to some users.

Filtering & Sorting rows and Hiding Columns:

**IMPORTANT:** All the Export/Print reporting in the Media File Manager exports or reports ONLY data rows that have not been filtered out with any filter options above. Only Columns that are not Hidden are exported/printed. This gives you some control of what is printed/exported to PDF, Excel etc

**Sorting:** Clicking on a column header toggles the sorting (up/down) for the column clicked. Hold the CTRL key and clicking adds the column sort to the previous column sort (e.g. Sort on Artist + Album). You can easily find recent additions to your media with a ‘Date’ column sort. Additional Sorting option are available by right-clicking on a column header (see the right click menu section below)

**Filtering:** When you hover your mouse over a column header a filter image in the header on right is displayed. Click on the filter image and the Grid Column Filter box dropdown (see next figure). There are two main types of column filters in the dropdown column filter box:

The ‘Values’ filter (Default) shows a list of all the unique values in the selected column with checkboxes (Checked means ‘show’, unchecked means ‘hide’):

In this dropdown, clicking on the ‘Text Filters’ tab at the top displays the ‘Text’ filter. Initially it is empty, but in the figure below the filter type ‘Contains’ was selected from the dropdown box and the text ‘Quad’ has been entered:
Column Right-Click menu:

A right-click on any column header pops up the Column menu allowing various functionality including Hiding the current column. The Column Chooser command allows you complete control over which columns are displayed in the grid:

Most of the above commands are obvious. Try them and see what it does to the grid.

**Command Buttons:**

- **Export/Print:** Pops up the grid Print Preview dialog with options to print/export to PDF, Word or Excel etc.
- **Export to Excel:** Exports all the Grid contents to an Excel (.xlsx) file.
- **Export to CSV:** Exports all the Grid contents to a CSV file (for import into Excel to make a pretty report etc).
- **Copy:** Copies the ‘Selected’ folders (‘Copy’ checkbox in the grid) to set ‘Destination Folder’
- **Browse:** Sets the ‘Destination Folder’ (where selected folder/files will be copied).

The option ‘Show Albums in Destination Folders’ shows the grid’s contents that are matched in the Destination Folder (so you know it’s already copied; it also compares file dates to see if anything is different). The info appears in the ‘Copied’ column – ‘Yes’ is match, ‘Part’ if some files missing or dates are different.
Example PDF Report from the Export/Print command:

Setting up your final output:

Initially the Export/Print command shows a Preview of your data (above). The menu at top enables you to customise the presentation of your report:

Page Setup section: Page Orientation, Margins & Size are often important as reports attempt a ‘best fit’ for column widths.

Watermark: Enables you can set up a watermark for your report (QQ members will see these on a few QQ Poll and Engineers reports)

Export: Enable you to create files from your reports. Most common formats are: PDF, Excel, Word and CSV.

**HINT:** Filtering rows in the grid controls the rows Exported and Hiding Columns controls the columns exported. Adjusting column widths in the grid also affects the column width in Reports.
Copying Files to Another Folder or Disc:
Select the ‘Copy’ column checkbox to select folders (with all their files) to the ‘Destination Folder’ (as set in the bottom of this dialog.

NOTE: When a Media Folder is copied it also copies all media files and sub-folders. For Music it also copies the parent (Artist) folder’s metadata & image files including ‘extrafanart’ folder, so this ensures the Kodi metadata files are all copied for both the Album and its Artist.

If the ‘Destination Folder’ is set and the ‘Show Albums in Destination Folders’ checkbox is checked as you select each Folder to Copy MMH will enter add ‘Copied’ or ‘Part’ to the ‘Copied’ column (‘Copied’ if all files exist and are same date in both your Source and Destination folders for that Album. ‘Part’ if one or more files is missing in the Destination or is of a different date).

MMH also shows the total amount of disc space that is required on the Destination Drive and will warn you if the available free space is less than the than the total of the selected and not existing on destination.

To Copy the Selected Files:

Click: ‘Copy’ command button

Sit back and relax. Copying large files and collections will take some time.

NOTE: The ‘Select’ toolbar menu contains an option to Delete selected media folders on the Destination Folder. This may be useful if you want to remove something from a USB drive to make room for new media.

There is also an option checkbox to create a CSV Tracklist file containing a list of every media file (song, video etc) found during ‘Scanning’. This file may be imported into Excel to view, sort and filter etc.

Viewing Track details from the Media Manager grid:
You may view album and concert songs/tracks by simply clicking on the small ‘+’ (plus) icon on the left of the album or concert record in the grid, this open up the album’s/concert’s track Details sub-grid as shown, click the ‘-’ (minus) icon to close the Track sub-grid:
Adding a Track from the Media Manager grid to a Playlist:
If you have a Playlist open in MMH you can double-click on any Album or Concert track and the track will be added to the currently opened Playlist:

Example: **Double-Click** on the track highlighted below:

---

The track is now added to your open Playlist as shown below:
Rename Media/Tag Media Files:

Functionality:
This tool enables you to do the following:
- Rename Media files (video or audio) by copying a list of tracks (typically from a website containing a list of songs in the music concert release disc)
- Supports auto tagging of tracks from MusicBrainz (based on a search by Artist and Album names)
- For Video file only: Can create NFO files for Concerts (For Kodi’s Music Video library)

This tool supports:
In Audio mode: mkv, mka, mp4, m4a, flac, dsf, mp3, aac, ape, wav, wavpack, and wma
In Video mode: m2ts, mkv, vob, mp4, avi, and ts

Rename/Tag Files dialog description:
Click ‘Rename Files and/or Tag Files’ from the Launcher dialog.

This displays the Rename/Tag Files dialog:

First set the ‘Rename Mode’ at top right. MMH works a little differently based on whether you are working with audio or video files – typically tagging and renaming options. NFO files are only created for Video files.

Selecting Files:
There are two options for adding files to this tool:

Add Folder: Use button to add all supported media files from your selected folder in the Folder browser

Add Files: Use button to add selected files supported by this from files selected in the File browser

NOTE: You should only add files from the same folder into the grid in a single session
Renaming Files:
Once your files have been added to the grid, you can now either:

- Enter the song titles for each chapter manually in the ‘Proposed New Name’ column (not recommended)
- Copy and paste all the song titles in a single command from the clipboard.
- Use the ‘Get Tags from Musicbrainz’ toolbar button to lookup your release on Musicbrainz online.

NOTE: For Music Concert videos in Kodi only the File Name (based on the song title) is required to generate NFO files for the Kodi Music Video library. All other tags are ignored by Kodi.

Copying all the Tracks Titles from the clipboard:
Sometimes the Musicbrainz lookup will not find the release (maybe it doesn’t yet exist in the database or your search names entered aren’t a close enough match to find the entry). In this case you can copy a list of track name from a text list of tracks or from a web page.

If you do not already have a list of all the track names that you can copy, use your favourite web browser, search for your Concert or Album in Google, find a web page that lists the songs, select all the list text and ‘copy’ (CTRL-C) to your clipboard.

The next figure shows a webpage from Discogs where a mouse was dragged over the track list (ready to copy):

![The Beatles – Abbey Road](image)

**The Beatles – Abbey Road**

<table>
<thead>
<tr>
<th>Tracklist</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Come Together</td>
<td>4:21</td>
</tr>
<tr>
<td>Something</td>
<td>3:03</td>
</tr>
<tr>
<td>Maxwell's Silver Hammer</td>
<td>3:27</td>
</tr>
<tr>
<td>Oh! Darling</td>
<td>3:27</td>
</tr>
<tr>
<td>Oblique's Garden</td>
<td>2:51</td>
</tr>
<tr>
<td>I Want You (She's So Heavy)</td>
<td>7:47</td>
</tr>
<tr>
<td>Here Comes The Sun</td>
<td>3:05</td>
</tr>
<tr>
<td>Because</td>
<td>2:46</td>
</tr>
<tr>
<td>You Never Give Me Your Money</td>
<td>4:02</td>
</tr>
<tr>
<td>Sun King</td>
<td>2:27</td>
</tr>
<tr>
<td>Mean Mr. Mustard</td>
<td>1:36</td>
</tr>
<tr>
<td>Polythene Pam</td>
<td>1:13</td>
</tr>
<tr>
<td>She Came In Through The Bathroom Window</td>
<td>1:57</td>
</tr>
<tr>
<td>Golden Slumbers</td>
<td>0:32</td>
</tr>
<tr>
<td>Carry That Weight</td>
<td>1:37</td>
</tr>
<tr>
<td>The End</td>
<td>2:20</td>
</tr>
<tr>
<td>Her Majesty</td>
<td>0:23</td>
</tr>
</tbody>
</table>

After highlighting (selecting) the track list press CTRL-C to copy the selected text to your clipboard
If you do have the titles already in a file then open the file, select all the track list text and ‘copy’ (CTRL-C) to your clipboard.

**HINT:** Sometimes the published concert Track List does not include the introduction chapter or the credits chapter, so sometimes the number of chapters (hence the number of chapter files) is not the same as the number of track list songs. In this case you may wish to first copy your clipboard selection to a temporary text file and manually add an intro at the beginning and/or credit at the end. You can remove the first and/or last chapters from the Rename dialog’s list by selecting the file and clicking ‘Remove’. Once you have your updated Track List copy that to your clipboard and you are ready to continue.

Now click: ‘Paste from clipboard’ command in the main Rename dialog:

This pops up the MMH Track Editor:

Click: ‘Paste Track Titles from Clipboard’ in the Track Editor and the text copied from Discogs is pasted, but in this example, it includes the unwanted track length:

![MMH Track Editor](image)

To remove the track lengths, use the Track Text Editor’s Remove menu option ‘Remove Trailing Numbers’ as shown above. This removes the unwanted trailing numbers:
Click: ‘Copy Tracks’ to update the track names and proposed new file names in the main grid.

**NOTE:** The Track Text Editor shows each track name in its own line. Users can add and delete lines in this editor to add and remove tracks from the current track list used to rename tracks in the grid.

**NOTE:** MMH will automatically add a sequence prefix to the New Names imported from the clipboard. So, you don’t have to add any numeric prefix. You only need to ensure the song titles are in the correct sequence. MMH will actually remove any leading numbers and renumber them, so if some song titles have leading numbers and some don’t’ MMH will clean up those for you.

**Renumbering Files:**
Sometimes you may wish to add a Disc Number prefix to all the files in a folder to help breakdown a large compilation or music concert.

MMH’s normal file naming is in the form shown below with a two-digit track prefix added:
TrackNo. Title - example: 01. My Track’s Title.flac

**NOTE:** MMH uses a two-digit track prefix if the number of files in the grid < 100. If the number of tracks in the grid >99, MMH uses a 3-digit track prefix (example for > 100 files: 001. My Track’s Title.flac)

**Disc Numbering:**
Setting the ‘Disc No’ in the toolbar adds a disc prefix to the file name:
Disc.TrackNo. Title - example: 1.01. My Track’s Title.flac

This tool supports selecting specific tracks in the grid, using Windows CTRL-Click, SHFT-Click (range) etc and renumbering only the selected files. This enables users to select groups of tracks and adding or changing the Disc prefix. Example:

Select the first 20 tracks, set Disc Number to ‘1’, then click: ‘Re-Number files’.
Now select tracks 21 to 30, set Disc Number to ‘2’, then click: ‘Re-Number files’
Example below shows tracks 12 to 21 selected and there ‘New Name’ changed to have a Disc prefix of ‘2’:
**Tagging Tracks from Musicbrainz (online music database):**

After loading files, Click: ‘Get Tracks from MusicBrainz’ from the toolbar menu.

This displays the Musicbrainz Tagging dialog:

Initially this is empty.

To search for an album’s tracks:

Enter the Artist and Album Names (first two text boxes), then click: ‘Find’

**NOTE:** If there is more than one matching ‘Album Artist’ name found in the Musicbrainz database, MMH will ask you to select the correct artist from the Album Artist dropdown list. Once selected MMH will then search for your selected Album Name by the Album Artist chosen.
If you enter valid names the ‘Releases’ list will be populated with all known releases. Click on any release to see its track names.

To use these tracks to rename and tag: Click: ‘Copy Tags’ at bottom right. The Rename Files dialog will now contain the album’s track info.

If the selected release (from the Releases list) contains multiple discs (see highlighted above), MMH displays a Disc list on the left. Selecting a Disc updates the Track List to the selected disc. If a single disc release the Disc list is not displayed.

You can also manually edit the track list by clicking ‘Copy Track Titles to Edit’. This opens a new dialog with free form editing of all the text. You can also copy txt into that dialog.

**Tagging Album Cover Art from Fanart.tv (online artwork database):**
After searching the Musicbrainz database for tags a new feature introduced in MMH 3.8.2 that allows users to find and download album art images from the Fanart.tv website (MKV and MKA cannot be tagged with cover art in MMH).

Click: Show Artwork

This pops out the MMH Album artwork gallery. MMH will always attempt to download all cover art and disc art on the Fanart.tv website for the release selected in the Release list box from the Musicbrainz lookup:

To Save any art to the current albums folder: *Double-Click* on the art image
**NOTE:** If you use JRiver as your playback device and you are tagging MKV files it is recommended that you enable 'Create/Update JRiver XML tagging files for MKV' which will be visible at the bottom of the dialog after you load MKV files for tagging.

This setting only an MKV file is being tagged. This should only be enabled if you are using JRiver as your MKV playback device. With this enables MMH creates a JRiver sidecar xml file for each MKV file being tagged. The xml files contain the tags in the tagging grid view (either manually entered or from the Musicbrainz online music database lookup). The JRiver sidecar xml files are imported into the JRiver music view when your new MKV files are imported by JRiver, affectively auto tagging your MKV files in JRiver.
Extract Audio from MKV/MKA file:

Functionality:
This tool enables you to do the following:

- Split an MKV or MKA file containing High Resolution Audio into lossless FLAC, M4A, WAV, MKV, MKA or MP4 files (multichannel and lossless DTS-HDMA, TrueHD and Atmos supported and any sample rate including 24/192kHz from BD ripped to MKV/MKA and DTS 96/24 from DVDV ripped to MKV/MKA)
- Automatically Rename and Tag the FLAC, M4A, WAV, MKV, MKA and MP4 output files based on Artist and Album lookup to MusicBrainz online database.
- For JRiver users, optionally create JRiver XML sidecar files to add tags for MKV files (if output is set to MKV)

NOTE: If you select multiple MKV or MKA files in the Open MKV/MKA File dialog MMH will extract the audio for all files selected in batch mode, however, in this ‘multiple input file mode’ MMH will not split the input files into chapters. With Multiples selected each file is converted to the selected output format.

If selecting a single MKV/MKA file it should contain chapters and at least one Audio stream. This tool automatically uses the only audio stream to extract to FLAC if the MKV contains just a single audio stream, otherwise the user is asked to select which audio stream to use to create the output files.

If you select MKV or MP4 as the output MMH copies both the video and the selected Audio stream to the output MKV or MP4 files.

HINT: When you create an MKV or MKA from your Blu-ray, DVD or other source you can pre-select the audio track(s) to include in the MKV file prior to using this tool.

Extract Audio from MKV/MKA dialog description:
Click ‘Extract Audio from MKV’ from the Launcher dialog.

This displays the Extract Audio from MKV Tool dialog:
BEFORE opening your input MKV or MKA file, first select the Audio Output format (FLAC, M4A, WAV, MKV, MKA or MP4) from the Output dropdown list at top left, the default is FLAC. NOTE: M4A is a MPEG container that can hold lossless audio codecs and be tagged and used in Kodi’s Music Library and other media players. You can then go ahead and select your MKV or MKA file using the tool menu (highlighted above at top left):

Click: ‘Open MKV/MKA File’

The next screen shot shows a File Selection dialogue used to select the MKV file:

NOTE: If the MKV file is named in the format: **Artist - Album** then MMH will automatically place the Album Artist and Album in the Album Tags text boxes on the right of this dialog.

MMH will pop up the ‘Select Audio Stream’ dialog, allow you to choose which audio stream to convert to your already selected Output format (FLAC or WAV) or stream to copy to M4A, MKV, MKA or MP4 output files:
Go ahead and *double-click* on the Audio Stream.

**NOTE:** If you select an Atmos stream its TrueHD 7.1 core lossless stream will be used. If you select a DTS:X stream its core lossless DTS-HDMA stream will be used. Atmos and DTS:X are object based audio streams, FLAC is limited to 8 channels and furthermore, there is no direct relationship between ‘objects’ and ‘channels’. You can playback Atmos or DTS:X in MKV, MP4 and M4A file as well as Matroska audio (MKA) files. You may wish to convert Atmos/DTS:X audio using MMH’s ‘Convert MKV to MKA’ tool.

After selecting an MKV file, MMH processes the MKV, splitting into chapters and converting the selected audio track to FLAC. The output audio files are saved to the same folder as your source MKV or MKA file(s) selected.

When completed the dialogue will contain all the chapters (output files) as seen in the next figure:

![Screenshot of MMH Split MKV into chapters and Create Audio File](image)

**NOTE:** MMH now supports converting MKV files to FLAC without splitting the MKV selected by chapters. So now this tool allows you to select multiple MKV files (concerts or albums already split into chapter files). If you select multiple MKVs, MMH now pops up a dialog:

![Screenshot of MMH conversion question](image)

If you answer 'Yes', MMH creates an audio file for each MKV file from the selected MKV audio stream (or if the MKV has only one audio stream it automatically selects it).
Extract Audio Preferences:
There are four preference settings that the Extract Audio from MKV tool uses. These Preferences are accessed via the Preferences tool bar button, which pops up the Preferences dialog:

![Preferences dialog]

The first setting only takes effect if a FLAC output is selected in the Extract Audio from MKV tool dialog. This sets the FLAC Compression Level.

The second setting only takes effect if a MKV output is selected in the Extract Audio from MKV tool dialog. This should only be enabled if you are using JRiver as your MKV playback device. With this enabled, MMH creates a JRiver sidecar xml file for each MKV file created containing the tags in the Extract Audio from MKV tool’s grid view (either manually entered or from the Musicbrainz online music database lookup). The JRiver sidecar xml files are imported into the JRiver music view when your new MKV files are imported by JRiver, affectively auto tagging the new MKV files.

The 3rd setting controls the MusicBrainz release Year used. Enabled it uses the first release date of the album, disabled it’s the date of the release you select. An example is Abbey Road. Its first release was 1969 but the blu-ray audio was released in 2019. Some users prefer the original release date for the album, other prefer the actual disc release date.

The 4th setting enables users to only set the Genre to the first genre listed for the current album when doing a Musicbrainz lookup. If this preference is not enabled and there are multiple genres found the genre is filled with a semi-colon delimited list (example: Classic Rock; Jazz Rock; etc). Of course, this test can be changed manually in the dialog’s genre textbox.

Tagging Tracks from Musicbrainz (online music database):
Once the MKV conversion to FLAC files is completed, you can now search for the album details by manually entering the Album Artist and Album text boxes (if they have not already been added) and click: ‘Find’ to get do a search for the album on the MusicBrainz online music database server.

**NOTE:** Please ensure you have the EXACT artist and album names. In MMH 4.0.11 the album name search was changed to a ‘fuzzy search’ so album names don’t have to be an exact match, example: Division Bell vs. The Division Bell.

**NOTE:** If there is more than one matching ‘Album Artist’ name found in the Musicbrainz database, MMH will ask you to select the correct artist from the Album Artist dropdown list. Once selected MMH will then search for your selected Album Name by the Album Artist chosen.

If you enter valid names the ‘Releases’ list will be populated with all known releases. Click on any release to see its track names.

If the selected release (from the Releases list) contains multiple discs, MMH displays a Disc list on the left. Selecting a Disc updates the Track List to the selected disc. If a single disc release the Disc list is not displayed.
You can also manually edit the track list by clicking ‘Copy Track Titles to Edit’. This opens a new dialog with free form editing of all the text. You can also copy txt into that dialog.

Artist, Album, Year, Genre and Comment values from the text boxes are used for tagging the audio files.

The next screenshot shows the Extract Audio from MKV dialogue after a MusicBrainz search has located the album. The selected Release is populated into the grid views tag fields after the 4th disc in the release is selected from the Discs list (The selected release was a 4 disc set):

Copying all the Track Titles from the clipboard:
Sometimes the Musicbrainz lookup will not find the release (maybe it doesn’t yet exist in the database or you search names entered aren’t a close enough match to find the entry). In this case you can copy a list of track name from a text list.

If you do not already have a list of all the titles that you can copy, use your favourite web browser, search for your Concert or Album in Google, find a web page that lists the songs, select all the list text and ‘copy’ (CTRL-C) to your clipboard.

The next figure shows a webpage from Discogs where a mouse was dragged over the track list (ready to copy):
After highlighting (selecting) the track list press CTRL-C to copy the selected text to your clipboard

If you do have the titles already in a file then open the file, select all the track list text and ‘copy’ (CTRL-C) to your clipboard.

**HINT:** Sometimes the published concert Track List does not include the introduction chapter or the credits chapter, so sometimes the number of chapters (hence the number of chapter files) is not the same as the number of track list songs. In this case you may wish to first copy your clipboard selection to a temporary text file and manually add an intro at the beginning and/or credit at the end. You can remove the first and/or last chapters from the Rename dialog’s list by selecting the file and clicking ‘Remove’. Once you have your updated Track List copy that to your clipboard and you are ready to continue.

Now click: ‘Paste from clipboard’ command in the main Rename dialog:

This pops up the MMH Track Editor:

Click: ‘Paste Track Titles from Clipboard’ from the Tracks Editors toolbar and the text is copied from Discogs is pasted, but in this example, it also includes the track length:
To remove the track lengths, use the Track Text Editor’s Remove menu option ‘Remove Trailing Numbers’ as shown above. This removes the unwanted trailing numbers:

Click: ‘Copy Tracks’ to update the titles and proposed new file names.
**Edit Grid Data manually:**
You can edit any cell in the grid at any time or do a multi-column (bulk) edit and change all the values of all the selected rows with a single edit.

**To do a multi-column edit (bulk edit):**

First select the rows you wish to edit (clicking on a row select that single row), CTRL + A key selects all rows, holding the CTRL key down while clicking rows selects the rows clicked. CTL + SHIFT after selecting a single row selects all rows from the first row selected to the last and every row in between. (typical Windows selection methods)

Click: Edit Selected Tags from the tool

MMH pops up the Multi Edit tags dialog:

In the next figure CTRL-A was used to select all the rows (tracks). MMH shows every column that is editable and checked the current values of each column’s cells for every selected row.

If all the values for the column are identical MMH displays that value.

If all the values for the column are NOT identical MMH displays ‘[multiple values]’ and then loads the unique values into a drop-down list. You can easily open the drop-down list to see the different values currently in that column. You can either enter a new value or select one of the existing values to use for all rows.

The figure below shows an example where two columns display ‘[multiple values]’ (Title and Year) with their values in drop-down lists. Each of the other columns have the same values shown in text boxes. The Year has its drop-down list open displaying the two values in the Year column of the grid (values 1973 and empty). You can select ‘1973’ and the value of the drop-down list will show 1973 (replacing [multiple values]).

![Multi Edit dialog](image)

The next figure shows the grid behind the Multi Edit dialog so you can see the Year column with one track with no year value:
To save the dialog data to every column of every selected row in the grid: Click ‘Save’

**NOTE:** MMH never saves to any column if its dialog column value is ‘[multiple values]’. The original values remain in the grid.

For all other values: For each column its value for every selected row is updated to the value in this dialog for its column.

In the example above: The Artist textbox value is saved to the Artist column in the grid. No data is saved to the Title column in the grid.
Tagging Album Cover Art from Fanart.tv (online artwork database):

After searching the Musicbrainz database for tags a new feature introduced in MMH 3.8.2 that allows users to find and download album art images from the Fanart.tv website.

Click: Show Artwork

This pops out the MMH Album artwork gallery. MMH will always attempt to download all cover art and disc art on the Fanart.tv website for the release selected in the Release list box from the Musicbrainz lookup:

![Album artwork gallery](image)

To save any album artwork to the current working folder (with FLACs): Double-Click on the art image.

After closing this Artwork dialog:

You can manually edit the file grid and change the proposed file names and tags.

When you are happy with the file and tag data.

Click: Rename & Tag

MMH will go ahead and rename the extracted audio files and tag with the appropriate data fields (either the values in the grid for song specific tag data or the ‘Album Tags’ text boxes and Track List (on right) for Album specific tag data.

**HINT:** If the folder that contains the source MKV file has a file named `folder.jpg` or `cover.jpg` (the album cover art saved from the Artwork download dialog or manually copied) MMH will tag each audio file with the cover art jpg automatically.

**NOTE:** You can also search Musicbrainz and tag after you have Split the MKV file.
Merge MKV and FLAC files:

Functionality:
This tool enables you to batch merge MKV video files with FLAC audio files that are in the same source folder. The original MKV audio tracks remain unaltered. The new FLAC audio track becomes the new default track for playback. FLACs can be stereo or multichannel (up to 8 channels).

Many media players can playback HD and 4K Video and lossless multichannel audio from and MKV file containing FLAC.

I often find music concerts that need audio adjustments: Examples:
- LFE (subwoofer) volume is too low
- A Music Video release is in stereo and I have a multichannel audio release I want to hear in the video
- The concert has a stereo only audio track and I want to upmix to 5.1
- The concerts 5.1 track is just stereo in front and crowd noise in rears. Another Penteo upmix candidate

In many of the above examples I use MMH to extract FLAC from the MKVs, then do my audio manipulations, get the FLACs how I want, then use this Merge MKV and FLAC file tool to get my new audio back into the original MKV.

File Naming Requirements:
This tool does not need any specific file naming to merge multiple MKVs with multiple FLACs. It merges based on the file name sort order only. That is, the first MKV is merged with the first FLAC, 2\textsuperscript{nd} with 2\textsuperscript{nd} etc. So the only ‘rule’ is to name the files in the correct sequence. MMH’s existing tools Split and Rename MKVs and Extract FLAC from MKVs both create files with the same file name sequence, so this is not a difficult requirement to meet. NOTE: You cannot use filenames the begin with the letter ‘-’.

Output (New Merged) Files:
This tool never overwrites the existing source MKV files. New merged MKV are created under the source folder in a folder named REMIXED. Both source MKVs and FLACs are unchanged.

Merge MKV and FLAC Walk-Through:
In this scenario we will assume you already have a music MKV files with an entire concert in multiple MKV files (one song per file) and you already have FLAC files for each song.

Click: ‘Merge MKV and FLAC’ from the Launcher dialog. The following dialog appears:
The tool assumes all you MKVs and FLACs are in the same folder.

Select the folder containing your MKV and FLAC files to merge:

Click: Add Folder

This pops up a Folder Selection browser:
Once selected, MMH scans the files in the folder and finds all the MKVs (in MKV file name order) and matches each to a FLAC file in the same file (in FLAC file name order):

![Merge MKV and Audio Files](image)

The dialog then displays the matching file names and shows the MKVs video resolution and the FLAC files audio information as shown above.

To merge the file pairs:

Click: Merge Files

MMH now merges each pair and makes the new FLAC audio stream the MKVs default audio stream (i.e. This is the audio stream that will be played back by default).

The original MKV audio tracks remain unaltered. This tool just adds the FLAC stream and makes it the default stream. You can always playback the original audio stream(s) by selecting other streams during playback.
Remix Channel Layout:

Functionality:
This tool enables you to do the following remixing of channels within a multichannel FLAC or WAV file:

- Add new ‘silent’ channels to Quad (4 channel) files – Some AVRs & players do not play pure Quad files
- Remix 7.1 to 5.1 (some releases are 7.1 only and users have only a 5.1 system)
- Remove a silent centre channel from 5 channel files (make a true quad 4.0 file)
- Remove channels 3 & 4 from a 6-channel file (Remove silent centre and LFE channels from 5.1 files)
- Invert Channel Phase for any channel(s) in a 6 channel (5.1 layout)
- Define your own Remix channel mapping and remix selected files

NOTE: Remixing channels using this tool will either OVERWRITE the selected source files or new files will be created in a new sub-folder under the Source Folder named ‘Remixed’. You need to select either option at bottom of dialog.

The standard channel ordering in a FLAC or WAV is always:

- Quad: LF, RF, SL, SR
- 5.0: LF, RF, C, SL, SR
- 5.1: LF, RF, C, LFE, SL, SR
- 7.1: LF, RF, C, LFE, SL, SR, BL, BR

Remix Channel Layout dialog description:
Click ‘Remix Channel Layout’ from the Launcher dialog.

NOTE: You must select one of the predefined remix option checkboxes at top before selecting the source files. MMH will only load files that match the channels selected (e.g. ‘Add Silent Channel to Quad’ will only load the grid with 4 channel files, remix 7.1 to 5.1 will only load 8 channel files, etc). This is to stop a user from attempting to remix files of incorrect channels for the selected remix option.

To remix channels simply select one of the predefined remix options from the top checkboxes, then use one of the ‘Add’ buttons on right.

Adding Files to remix:
You can now either:
- ‘Add Sub Folders’ – This recursively adds all audio files in all sub-folders under selected folder
• ‘Add Folder’ - Adds all audio files in selected folder
• ‘Add Files’ - Adds selected file(s) as selected in the file dialog that pops up

MMH will add any files with the appropriate channel count as described earlier.

In version 3.5.2 a new remix option was added to allow users to define their own temporary remix definition, for example swap front and rears in a quad file.

**To define your own Remix Channel Mapping:**
Click on the checkbox [Remix (User Defined)]:

This immediately pops up the User Defined Remix channel mapping dialog containing six input channels on the left and 6 output channels on the right (mapped one to one):

![User Defined Remix Channel Mapping](image)

To change the default mapping:

1. First ensure the number of input channels is correct for your definition. For example, if your source files are Quad then remove the inputs 'C' and "LFE" by selecting each one and using the <DEL> (delete) key on your keyboard
2. Ensure the number of Output channels is correct for your converted file
3. Ensure channel mappings (link lines) are correct. Select and hit <DEL> key to remove unwanted, incorrect mappings.

4. Add your new channel mappings by clicking and holding down on the right side of a input channel and dragging the mouse to left side on the Output channel, release the mouse button.

Here is an example of Quad channels being remapped by swapping front and rears and also adding 2 new silent channels for C and LFE to convert to 5.1 formatted files:

![User Defined Remix Channel Mapping](image)

To save your definition click the [Save] button. This returns you to the original Remix dialog and now you can go ahead and select the Quad files or folders containing Quad files to remix.

‘Remix, Resample and Reencode’ (top right of main Remix dialog): You’ll need to select the output sample rate and FLAC encoding compression level. If the source files are 4 channel or 5 channel this option automatically remixes to make a 5.1 compatible playback file with silent C and LFE (or Silent LFE) it is was a 5.0 source file).

This tool was added for some QQ members who have car surround systems that can only play 5.1 formated FLAC files at 48kHz and a FLAC Zero compression level.
‘Correct Penteo 4.1 Layout’: This option is used to fix Penteo upmixes that output a 5.1 file where the C channel contains the LFE and all subsequent channels are ‘moved’ to wrong channel order. This option inserts a silent C channel and moves all following channels to correct positions.

‘Concert DTS FLAC to PCM FLAC’: This option decodes DTS encoded streams embedded in a FLAC file to a true PCM/WAV FLAC file.

‘Refresh Silent Channels’: This option allows easy replacement to existing silent channels. Useful to correctly measure Dynamic Range (DR) for DSF and FLAC files originating from SACD sources where the ‘silent channel(s)’ have extremely low level noise that the Foobar2000 DR meter sees as a non-silent channel, causing DR calculation error.

‘Move Quad Rears to Back’: Added for a user that wanted to hear the Quad rear channels in his rear speakers in his 7.1 system (by default Quad rears are played in the side channels).
Channel Delay:

Functionality:
This tool enables you to do the following:

- Align/Delay channels within existing FLAC, WAV or DSF multichannel files (with 6 channels only)
- Work with single files or with multiples in batch mode

Channel Delay dialogue description:
Click ‘Channel Delay’ from the Launcher dialog.

This displays the Channel Delay dialog:

![Channel Delay Dialogue](image)

NOTE: When the Channel Delay tool is used for the first time the ‘Output File Location’ will be empty. You should set the pulldown list to ‘Remix Folder (Under Source)’ if you do not want the selected source files to be overwritten. This option auto creates a folder under the selected input files named ‘Remixed’, the updated files will be created in that folder with same file names and tagging and the input files.

Adding Files to Apply Channel Delay/Alignment:
You can now either:

- ‘Add Folder’ - Adds all audio files in selected folder (FLAC, WAV and DSF)
- ‘Add Files’ - Adds selected file(s) as selected in the file dialog that pops up

Example when selecting ‘Add Files’ a file dialog opens as shown below:

Simply navigate to the folder(s) containing the files you wish to edit, then select

NOTE: You can select multiple files with Windows standard CTRL-A (All files), CTRL-Click (multiple) and SHIFT-Click (a range). Click ‘Open’ to complete.
MMH loads each file into its Channel Delay view:

**NOTE:** This dialog expects all values to be milliseconds (ms)

**IMPORTANT CONCEPT:** Since this code cannot predict the future when reading an audio file you can ONLY define a channel DELAY. Therefore, if you want to fix a channel that is already delayed you must actually delay all other channels to match the said channel. Example: The Beck Sea Change BDA has the LFE channel delayed by 8ms, so to fix we entered 8ms as the delay for all other channels to fix the first FLAC file (above)
Each file is shown within its own Channel Group. You can edit the Delay by just entering a number or by using the value increment button (on right of each Delay numeric entry).

You can change the Delay for any number of channels. Files with all channels set to 0 are ignored (no changes are made).

**Copying Delay settings:** You can copy the Delay values from each channel in the first file in the list to all other files by clicking: [Copy First File Delay] button. This feature makes it easier to apply the same Delay adjustments to all the files in an album (files in same folder).

Example after copying the previous figures Delay shown here:

![Delay settings in the image.](image)

**Applying Delay:**

To Save the files with updated Channel Delay either:

For an individual file: Click [Apply Delay] on the right of the file’s channel grid

For All the files in the list: Click [Apply Delay (All Files)] at the very bottom of this dialog

**NOTE:** Depending on your Output File Location input files are either overwritten (updated) or written to new files in a new folder created below the Source files named ‘Remixed’.
Channel Split & Merge:

**Functionality:**
This tool enables you to do the following:
- Split existing FLAC or WAV files into mono channel wav files (batch process)
- Merge existing mono WAV files and create a new multichannel FLAC file

This tool has two tabs in its tool dialog. One for Split and one for Merge.

Split defaults to exporting all the source file channels. You can select just a subset of channels.

**Split Files tab description:**
Click ‘Channel Split & Merge’ from the Launcher dialog.

This displays the default view with the Split tab showing:

To help users to recognise the current mode, MMH shows the active tool name in Bold and the mode is shown above the Add Folder button (see above).

To load your source files into the Split tool:

Click: Add folder or Add Files.

NOTE: Add Folder loads all FLAC or WAVs in the Folder browser dialog. Add Files loads the selected files chosen from the Files browser dialog (you can select multiple files with Windows standard CTRL-A, CTRL-Click and SHIFT-Click).

In this example Add Folder has been selected:
The file info is displayed.

**Output Folder**: By default, the Output folder is the same as the input folder. You can output the mono wav files to any folder by deselecting the ‘Source Folder’ checkbox at bottom, then clicking the Browse button to select an existing folder as the output folder.

**Output Channels**: By default, the Output Channels is ‘All Channels’. If you want to restrict the output mono files to specific channels only, disable the ‘All Channels’ checkbox and then select the desired channel output channels:

To export the mono files:

Click: Split to Mono

MMH processes each source file creating multiple mono wav files based on your Output Folder and Output Channels selections. Each mono file is created with the same name as each source file with a suffix added based on the channel name. Example: Source File name: XXXX.flac  Center mono file: XXXX.C.wav
Merge Files tab description:
Click ‘Channel Split & Merge’ from the Launcher dialog.

This displays the default view with the Split tab showing, to view the Merge tab, click ‘Merge Mono files to MCH file’, the view changes to the Merge tab:

To load your source mono files into the Merge tool:
Click: Add folder or Add Files.

**NOTE:** Add Folder loads all FLAC or WAVs in the Folder browser dialog. Add Files loads the selected files chosen from the Files browser dialog (you can select multiple files with Windows standard CTRL-A, CTRL-Click and SHIFT-Click)

In this example Add Folder has been selected:

**NOTE:** MMH automatically works out which mono files should be grouped based on the file name prefix (without the channel name suffix) and works out the channel mapping based on the file name channel suffix
MMH will work out the channel layout based on the number of mono channel files. There are slightly different Quad and 5.1 channel layouts (the surround channels can be mapped to sides or rears). You can choose between these two options in the Channel Layout selection dropdown list at the bottom.

My testing, using Kodi and a Denon AVR shows there’s no difference in how these two options affect playback, but it may be worthwhile seeing if your system plays these the same (only if you have a 7.1 setup I think).

To merge the mono files into new multichannel FLACs:

Click: Merge to MCH

The FLAC files are created in the same folder as the source mono wav files.
Resample Audio Files:

**Functionality:**
This tool enables you to do the following:
- Resample Audio (e.g. Resample 96kHz to 48kHz, Resample 48kHz to 96kHz etc)
- Resample Audio (e.g. 16 bit to 24bit) (or a combination or sample rate and bit depth)

**NOTE:** Resampling using this dialog uses the ‘Output File Location’ you set at bottom. You can set the pulldown list to either ‘Overwrite’ your selected files or ‘Remix Folder (Under Source)’ if you do not want the selected source files to be overwritten. This option auto creates a folder under the selected input files named ‘Remixed’, the resampled files will be created in that folder with same file names and tagging and the source files.

**Resample Files dialog description:**
Click ‘Resample’ from the *Launcher* dialog.

This displays the Resample Files dialog:

Adding Files to resample:
You can now either:
- ‘Add Sub Folders’ – This recursively adds all audio files in all folder under selected folder
- ‘Add Folder’ - Adds all audio files in selected folder
- ‘Add Files’ - Adds selected file(s)

To **Resample audio** simply select the ‘Resample to’ rate from the dropdown list (at bottom) and bit depth if you want it changed. Leaving bit depth empty will ensure bit depth is not changed during resampling (i.e. If the bit depth is not set then bit depth is not changed)

To process the selected files:
Click: ‘Convert’
**Channel Volume:**

**Functionality:**
This tool enables you to do the following:
- Change Channel Gain (Volume) for any/all channels in a FLAC or WAV file
- Supports FLAC and WAV files with mono, stereo or multi channels (up to 8 channels)
- Load and Update single or multiple files, or all files in a selected folder (e.g. an album)
- View channel audio statistics related to volume (Peak and RMS levels)
- Update individual files or all files loaded in a batch for channel Gain values entered.

This tool is typically used to change the channel balance in multichannel files to permanently change the perceived surround effect. For example, many surround releases have reduced volume in rears or LFE channel is low/high etc.

**Channel Volume dialog description:**
The Channel Volumes tool can be opened from the MMH Launcher dialog or from the Penteo Update tool dialog.

When the Channel Volumes tool is started from the Launcher this dialog pops up:

![Channel Volume Dialog](image)

**NOTE:** When the Channel Volumes tool is used for the first time the ‘Output File Location’ will be empty. You should set the pulldown list to ‘Remix Folder (Under Source)’ if you do not want the selected source files to be overwritten. This option auto created a folder under the selected input files named ‘Remixed’, the updated files will be created in that folder with same file names and tagging and the input files.

To select your working files: Either:

Click: [Add Folder] button to select all the FLAC or WAV files in the selected folder

Or

Click: [Add Files] button to select individual files (HINT: you can use the CTRL key and SHIFT keys to select multiple)
A dialog will pop-up allowing selection of a folder or file(s).

Once selected, all files in a folder or each file selected is loaded into the Channel Volumes dialog:

![Channel Volumes dialog](image)

Each file’s channel volume statistics is displayed (grouped by file). The file name is shown in the file header.

**NOTE:** If you load many files this dialog allows you to scroll up/down to view all the file’s volume statistics by using the scroll on right of the statistics data). When loading multiple files, a progress bar will appear during processing.

To change a channel’s volume, either enter a new value in the channel Gain text box or click the up/down button in the text box to increase/decrease the Gain value in 0.5db increments.

**NOTE:** Increasing volume is a positive Gain value, decreasing volume is a negative gain value. All values are relative to a Peak value of 0. (zero is the maximum level of all channels)

You can change the Gain for any number of channels. Files with all channels set to 0 are ignored (no changes are made).

**Copying Gain settings:** You can copy the Gain values from the first file in the list to all other files be clicking: [Copy First File Gain] button. This feature makes it easier to apply the same Gain adjustments to all the files in an album (files in same folder), example increase the two surround channel volumes by 3.0db and/or increase LFE by 3.0db etc.

**Applying Gain:**

To Save the files with updated volumes (gain) either:

For an individual file: Click [Apply Gain] on the right of the file’s statistics grid

For All the files in the list: Click [Apply Gain (All Files)] at the bottom of the dialog

**NOTE:** If the original input files are overwritten (updated), MMH will update the file’s volume statistics after the new Gain has been applied. You will see the stats updated just after the file is updated.
Join or Split Audio:

Functionality:
This tool enables you to do the following:
- Merge separate FLAC & WAV files into a single file
- Create a CUE file with from the original of individual files (storing tags and durations)
- Edit the original durations.
- Split a FLAC from the CUE file created
- Or just Use the large new FLAC with all tracks and the new CUE to enjoy playback from the CUE

This tool can be used to change the original track start times and is useful to correct some discs that have been converted to FLAC with incorrect track start times (e.g. from a BDA or DVD with incorrect chapters times)

Merge or Split Audio dialog description:
Click ‘Merge or Split Audio’ from the Launcher dialog.

This displays the Merge or Split Audio dialog:

Adding FLAC Files to Merge:

Click: Add FLAC Files

A file open dialog opens, navigate a select FLAC files to merge. You can use the standard windows multiselect options such as hold the ‘CTRL’ key while selecting to add each selected file or hold ‘SHIFT’ to select a range of files.

MMH will add the selected files as shown next:
You may edit the Start time values to adjust the start of any of the tracks in the CUE file.

**HINT:** When entering Start times in the grid cell you can use the space bar to move to next time field (e.g. When entering minutes hit space to move to seconds etc)

**NOTE:** Most of the existing FLAC file track tags are stored during the addition of files to this dialog and will be reused when the merged FLAC file is later Split back into individual FLACs.

**To Merge all the files in the list:**

Firstly, ensure the Output File name has a valid value. MMH will attempt automatically add a name based on the tags it finds in the files added.

Click: Merge

MMH will process all files into a single large FLAC and the save a new CUE file with same name as the FLAC file with tracks (and Start times) in the grid at time of the merge.

**NOTE:** You can, of course, open the new CUE, once Saved (and the merged FLAC) in audio programs such as Foobar2000 and test the tracks. You can also manually edit the CUE MMH created to adjust start times or basic tag info. (Foobar2000 can also split back to individual FLAC files from the CUE and you can also edit a CUE with a text editor such as NotePad)

**To Split a Merged FLAC file:**

Once the merge is completed the Split command button is enabled and once clicked will go ahead and cut the FLAC into tracks based on the values in the grid a ‘Split’. The new FLAC files are re-tagged with their original tags including adding album art (if either a ‘folder.jpg’ or ‘cover.jpg’ file exists in the working folder).
Batch Audio Tools:

Functionality:
This tool enables you to do the following (for FLAC, WAV and DSF files only) by scanning all FLAC files from a selected Source (parent) folder recursively all sub-folder:

- **Analyze ReplayGain**:
  - Report current ReplayGain tags embedded in flac files.
  - Process each folder as an ‘Album’ and calculate Track Gain and Album Gain (BS 1770)
  - Save Track Gain and Album Gain tags (from previous step) to selected files.

- **Analyze Album Cover Art**:
  - Report whether files contain embedded cover art and/or if cover art image files exist.
  - Save cover art to selected flac files (add new or updates existing embedded art)

The Analyze ReplayGain is useful if you use Replay Gain as it can very easily find any files where Replay Gain has not been applied.

The Analyze Album Cover Art is useful if to easily find files without embedded art and can automate the re-tagging (embedding) of covers for all files in an album folder if it finds an image file named: folder.jpg or cover.jpg.

**Batch Audio Tools Audio dialog description:**
Click ‘Batch Audio Tools (flac)’ from the Launcher dialog.

This displays the Batch Audio Tools dialog:

*HINT:* On first run all option and commands are disabled until a user selects a ‘Source Directory’ from the ‘Browse’ command button. Once this tool has been used it ‘remembers’ the last state including Source Directory.

Once a Source Directory is selected you need to choose one of the Analyze option. By default, MMH selects the first, ‘Analyze ReplayGain for all sub-folders’:
ReplayGain:

To View existing ReplayGain tags:
Ensure you select the Source Directory
Select: ‘Analyze ReplayGain for all sub-folders’ option
Select: ‘Get Existing ReplayGain’

Click: [Start Analyzing ReplayGain]

MMH processes each folder recursively and loads the flac file replaygain data:
To Analyze ReplayGain:
Select: ‘Analyze ReplayGain (slow)’
Click: [Start Analyzing ReplayGain]

MMH processes each folder as an Album and loads the calculated Track and Album replaygain using the ITU-R BS1770 algorithm. This is quite a slow process as each file is processed with a two phase gated measurement of the mean loudness as described by ITU-R BS.1770

Once the Analyzed Track and Album Gains are loaded into the grid you can use the [Update Replay for Selected] command (bottom right) to save the Analyzed replaygain tags to each selected file. You must select the files first.

To Update ReplayGain tags:

After you have completed ‘Analyzed Replay Gain’

Select the files to update using the checkbox column on left

Click: [Update ReplayGain for Selected]

MMH goes ahead and saves the Analyzed replaygain tags to each selected file

**HINT:** You can use the column filters (in each columns header when you hover your mouse over the column header) to display only certain files. For example: Only specific folders (Albums) or files without existing replaygain data

**HINT:** You can select every file in the grid by checking the checkbox in the select column’s header

**NOTE:** MMH does not alter any audio stream content. The only change to any file is to add replaygain tags with gain data. These replaygain tags can be read by many playback software and devices.

**HINT:** You can remove replaygain tags from any selected files by checking the ‘During Update: Remove Replay Gain’ option prior to running ‘Update Replay Gain’.

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To View existing Cover Art tags:

Ensure you select the Source Directory
Select: "Analyze Cover for all sub-folders' option

Click: [Start Analyzing Cover Art]

MMH processes each folder recursively and loads the flac file cover art data: Whether the file contains embedded cover art and whether the file’s folder contains a cover art image file (either folder.jpg or cover.jpg):
To Update Embedded Cover Art:

**NOTE:** To update embedded art a Cover File must exist in the file’s album folder

After you have loaded files using the previous command:

Select the files to update using the checkbox column on left.

Click: [Update Cover Art for Selected]

MMH goes ahead and saves the cover art image to each selected file

**HINT:** You can use the column filters (in each columns header when you hover your mouse over the column header) to display only certain files. For example: Only specific folders (Albums) or files without embedded cover art

**HINT:** You can select every file in the grid by checking the checkbox in the select column’s header
Update Penteo (& SpecWeb) files:

**Functionality:**
This tool enables you to do the following:

- Automatically copy tags from stereo input files to MCH upmixed files that are located in same folder
- Download and Tag Album cover artwork from fanart.tv website
- Automatically locates Album Cover Art and Discart already on your PC or Server (NAS) and reuse
- Automatically Remix Quad FLAC files to 5.0 or 5.1 compatible formatted files (AVR compatible)
- Automatically Delete stereo files in source folders (at completion of above)

**Why is this Tool in MMH?:**
I created this tool for use with my Penteo Upmixes (but it can be used for SpecWeb and other upmixers).

With Penteo, a user is recommended to use WAV files as the input. It creates multichannel FLAC output.

All my stereo files are stored tagged FLAC files, Penteo output files are untagged FLAC files. Wouldn’t it be nice to copy the tags from the input files to the output files instead of manually tagging the new output files?

So now, we have this tool that not only copies the tags but can also locate artwork from folders containing the same album anywhere on your PC or network (folders must contain Artist and Album Name), and/or it can locate art on fanart.tv, remix and delete the input waves, leaving the working folders with completed Penteo Upmixed, tagged files.

HINT: I use Foobar2000 to convert my existing stereo FLACs into stereo WAVs. The WAV files retain the original tags from the FLACs. I can also set Foobar to create the WAVs in a folder structure of: ARTIST\ALBUM. So I can easily select a dozen or more stereo albums in Foobar and batch convert ALL to new folders as wavs ibn literally a few seconds. Selecting Folders in Foobar allows me to select MULTIPLE albums in a few clicks.

NOTE: As of MMH version 4.0.13 this tool works with any tagged stereo input files (no longer restricted to WAV) and can work with any taggable MCH file created by Penteo (wav, FLAC etc)

**Rules/Requirements for the tool to work as designed:**
For the tool to work as designed:

1. All input files **must be stereo** - wav format is recommended by Penteo but FLAC is also supported
2. All input files must be tagged
3. The Penteo output files must MCH (> stereo) and in a taggable format (wav, FLAC, etc)
4. The input (wavs) and output (FLACs) must be in the same (album) folder

NOTE: Reaper has a Batch Mode that can be setup to do 3 and 4 above.

5. The tool can recursively load all the music folders that conform to the above rules into the tool’s grid (showing basic info)
6. After loading your upmix folder(s) (The tool checks for valid files and shows any issues stopping the process on that album folder)
8. User can edit two tags for each album: Comments and Album name. These update FLAC (output) tags.

Clicking 'Process Files' does the following

- For each input wav file in each album folder:
  --- Copies the tags from stereo file to corresponding MCH file (by file order, name your files so the sort by filename)
  --- Tags album cover art (if a file 'folder.jpg' or 'cover.jpg' exists in the album folder) into the MCH file
  --- Renames the MCH file based on user preferences ('Title' or 'Artist - Title' both with track prefix)
  --- Checks if MCH is 4 channel (quad) file and if so, remixes added silent channel(s) based on a user preferences

Each Penteo upmixed file is Tagged, renamed etc and ready for use.

The tool also has a recursive 'Delete Stereo files' command to clean up all the input files, leaving the album folders with just the MCH files and album art.

This Penteo Tagging Tool also allows:

- Double-Click on 'Cover Art' or 'Disc Art' cell in the grid opens the tool’s Find Album Art dialog and displays any artwork already in the album folder (see later in the section)
- Double-Click on any other cell in the grid open the album folder in Windows Explorer (easy access)
Examples:

Here's one of the album folders after a Penteo UM: (upmixed FLAC files are untagged - wavs are the input files). This is before the MMH Penteo tagging tool has been used:

<table>
<thead>
<tr>
<th>Name</th>
<th>#</th>
<th>Title</th>
<th>Contributing artists</th>
<th>Album</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Led Zeppelin - Black Dog.flac</td>
<td></td>
<td>Black Dog</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- Led Zeppelin - Rock And Roll.flac</td>
<td></td>
<td>Rock And Roll</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- The Battle Of Evermore.flac</td>
<td></td>
<td>The Battle Of Evermore</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- Stairway To Heaven.flac</td>
<td></td>
<td>Stairway To Heaven</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- Misty Mountain Hop.flac</td>
<td></td>
<td>Misty Mountain Hop</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- Four Sticks.flac</td>
<td></td>
<td>Four Sticks</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- Going To California.flac</td>
<td></td>
<td>Going To California</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>- When The Levee Breaks.flac</td>
<td></td>
<td>When The Levee Breaks</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
</tbody>
</table>

Here's the same folder after running the new Penteo Tool: (FLACS are tagged and renamed)

<table>
<thead>
<tr>
<th>Name</th>
<th>#</th>
<th>Title</th>
<th>Contributing artists</th>
<th>Album</th>
</tr>
</thead>
<tbody>
<tr>
<td>discart.png</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>folder.jpg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Dog.flac</td>
<td>1</td>
<td>Black Dog</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>Rock And Roll.flac</td>
<td>2</td>
<td>Rock And Roll</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>The Battle Of Evermore.flac</td>
<td>3</td>
<td>The Battle Of Evermore</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>Stairway To Heaven.flac</td>
<td>4</td>
<td>Stairway To Heaven</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>Misty Mountain Hop.flac</td>
<td>5</td>
<td>Misty Mountain Hop</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>Four Sticks.flac</td>
<td>6</td>
<td>Four Sticks</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>Going To California.flac</td>
<td>7</td>
<td>Going To California</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
<tr>
<td>When The Levee Breaks.flac</td>
<td>8</td>
<td>When The Levee Breaks</td>
<td>Led Zeppelin</td>
<td>IV(R)</td>
</tr>
</tbody>
</table>

In this example all the files from the 5 ‘good’ album folders were processed in only a few seconds (on an SSD drive with a fast modern 8 core PC)
Here's another view of the folder showing cover art has been tagged in the FLACs:

Here's information on an error found during selection of folders to process. Hover mouse over error icon and you see the problem:

<table>
<thead>
<tr>
<th>Folder Name</th>
<th>Artist</th>
<th>Album (editable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses Of The Holy</td>
<td>Led Zeppelin</td>
<td>Houses Of The Holy</td>
</tr>
<tr>
<td>Led Zeppelin</td>
<td>Led Zeppelin</td>
<td>I</td>
</tr>
<tr>
<td>Led Zeppelin II</td>
<td>Led Zeppelin</td>
<td>II</td>
</tr>
<tr>
<td>Led Zeppelin III</td>
<td>Led Zeppelin</td>
<td>III</td>
</tr>
<tr>
<td>Led Zeppelin IV</td>
<td>Led Zeppelin</td>
<td>IV</td>
</tr>
</tbody>
</table>

Physical Graffiti  Led Zeppelin

X No output Penteco FLACs exist (There are 15 waves)
Penteo Tagging Tool Preferences:
Here's the user preferences dialog:

The Re-Tagging:
These options affect what tagging will be done

File Renaming:
There are two options for how files will be renamed

Quad Channel Remixing:
These options deal with how quad mixes need to be remixed for compatibility with some AVRs

The first two options only are used on 4 channel files. Option 1 is adding a silent centre channel while the 2\textsuperscript{nd} option adds both a silent C and LFE channels.

The 3\textsuperscript{rd} option only works with a 6 channel file. This resolves remixing Penteo 4.1 upmixes when they are created with Reaper as a 6 channel file. Since channels are in the incorrect order you need to remix to the correct 5.1 channel order, moving the channel to the Centre position and moving others that follow.

\textbf{WARNING}: Selecting this option will destroy ‘normal’ 6 channel files created with Penteo’s 5.1 upmix option. DO NOT use this option unless you are sure the folders you select are in fact Penteo 4.1 files in a 6 Channel file.
Finding Album Cover Art and Disc Art:
MMH supports searching the Fanart.tv website image database for users to find and download album art images for both album cover and disc artwork. MMH can also be used to do Smart/Fuzzy Search for album art on your PC or network (including NAS and external drives) to locate art you may already have.

To do an artwork search:

In the Penteo Tagging Tool main grid (after loading album folders): Double-click the Cover Art or Disc Art cell

This pops out the MMH Album artwork finder dialog.

When the dialog first opens it immediately displays any artwork in the current album’s folder (the album you double-clicked on)

To Search for artwork on the Fanart.tv website:

Enter the correct Artist and Album Names in the text boxes at top right (these are prefilled in some circumstances)

Click: ‘Scrape Fanart.tv website’

MMH will search the website and return all cover and disc art found for the release selected:
To search your local drives (PC connected drives, Server/NAS, External drives etc):

(You must first use the Preferences Dialog – top left menu) to set up the Root folders. MMH will recursively search through every sub-folder under each Root to locate artwork, after that:

Enter the correct Artist and Album Names in the text boxes at top left (these are prefilled in some circumstances)

Click: ‘Find from Local Folders’

Smart/Fuzzy Search for album art on your PC or network (including NAS and external drives):

To save any of the album art images to the album folder, simply double-click on the image. If its cover art, it will be tagged to the FLAC when the files are processed.

**Album Artwork Search Preferences:**
To setup the Smart Search go into the Artwork Search Preferences dialog and add all the root music folders that may contain album art for other versions of the same album on your PC, in the Local Folders to Search list.

You can also enter the names of the Cover Art and Disc Art files you have used previously in the File Names section:
In the screenshot above there are 3 possible folders that could have album art for new Penteo upmixes:

1. The original Stereo root folder with all my original stereo FLAC albums (all tagged and with album art)
2. The Penteo UM folder where I keep all my completed upmixes for playback (I often redo some again, so the artwork will be there already)
3. My new Penteo UM testing folder. This is where I put all my UMs to listen to, sometimes maybe two or three of same album from different sources or different upmix settings.

For this to work, MMH looks recursively searches through every sub-folder in every user set Root folder for a Full Folder Path that contains both the ARTIST and ALBUM names (as entered in the Find Artwork dialog).

Examples that will be found for the ARTIST: **Midnight Oil** ALBUM: **Diesel And Dust** (The search is not case sensitive)
E:\Stereo\Midnight Oil\Diesel and Dust\folder.jpg
E:\Stereo\Midnight Oil\Diesel and Dust (1990)\folder.jpg
O:\Audio (Penteo UM)\old mixes\Midnight Oil - Diesel and Dust (From CD)\folder.jpg
Appendix:

Download Microsoft .NET Framework (if required) – Search for ‘Microsoft .NET 4.8 Runtime’