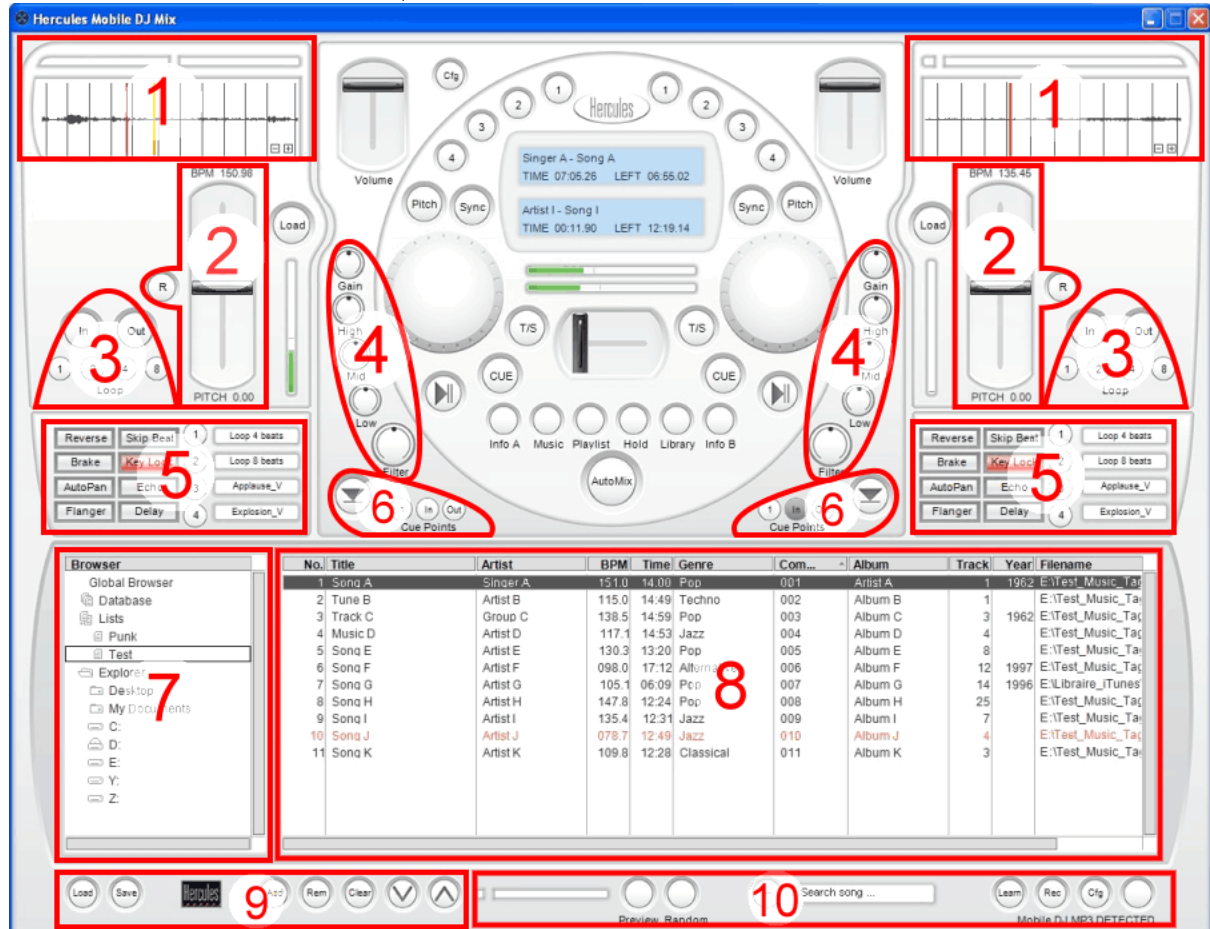# Hercules Mobile DJ Mix Software Manual

I) OverView

Hercules DJ Mix is a DJ mix computer software tailored for Hercules Mobile DJ MP3: the software has the same look as Mobile DJ MP3, with additional information and controls.
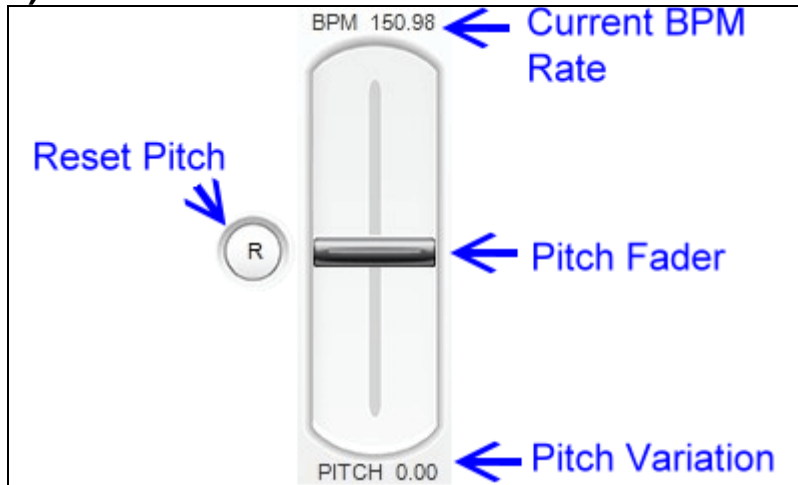

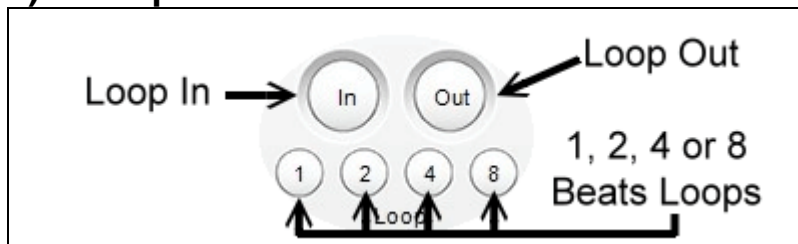| Area 1	Waveform
Area 2	Pitch
Area 3	Loops
Area 4	Equalization
Area 5	Effects
Area 6	Cue points
Area 7	Browser
Area 8	Files list
Area 9	Database management
Area 10	Other functions

1)   Waveform area
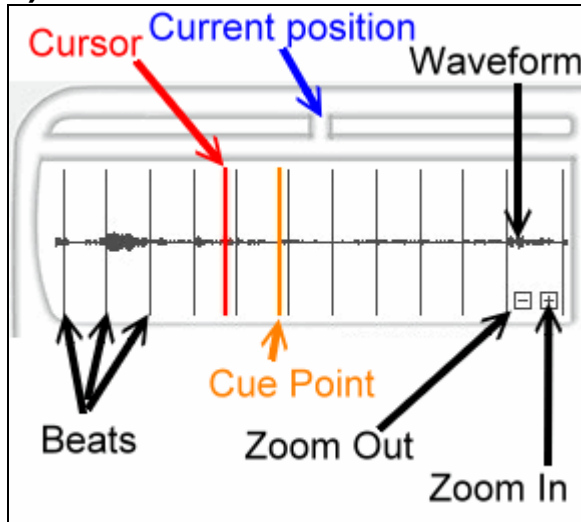

2)   Pitch area

3)   Loops area
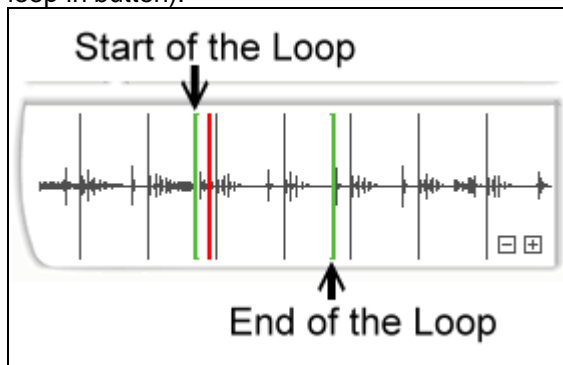

Loop In button function

1st push places the starting point of a loop on the next beat point (a bar on the waveform).

2nd push place the end point of a loop locked on the next beat point, and the playback loops between the loop start and the loop end points.

The loops start and end points are always on beat points, so these loops are called locked loops.

Start of the Loop

End of the Loop
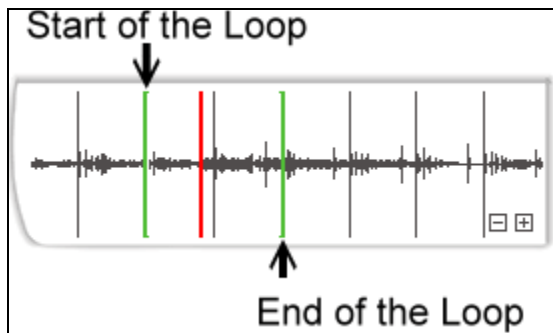
Pressing again on Loop In button divides by 2 the loop duration.

Loops 1, 2, 4, or 8 buttons
These buttons place a starting point of a loop on the current position and an end point at 1, 2, 4 or 8 beats. The difference with the loop in button is that the loop starting point is the moment the user pushes the buttons 1, 2, 4 and 8, so these loops are loops on the fly (instead of locked loops with the loop in button).
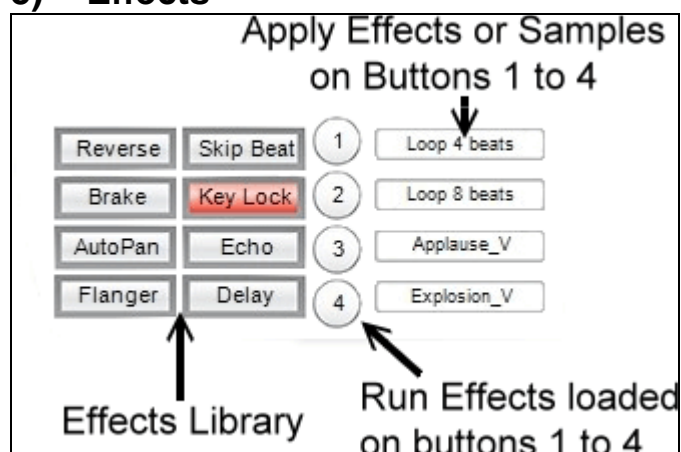

Start of the Loop

End of the Loop

Loop Out button function
This Loop Out button make the playback leave the loop mode.

4)   Equalization

← Volume Gain on Deck
Gain

← Treble
High

←Medium
Mid

←Bass
Low

← Frequency Filter
Filter
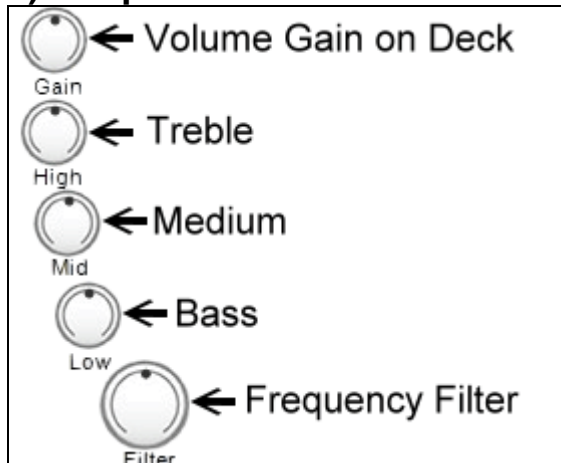
5) Effects

The effects library is a library of 8 effects: if an effect is loaded, its button becomes red on Mobile DJ Mix Interface.

Reverse: reverse the playback, as if you reverse the direction of a vinyl disc or a tape.
Brake: slow down the playback until the moment the music is stopped.
AutoPan: a panoramic effect to make the music turn around the audience
Flanger: a delayed signal is added to the original signal with a continuously-variable delay, giving a techno/electronic colour to the music. Flanger is close to phaser effect
Skip beat: advance playback of 1 beat
Keylock: lock the tone of a music so that moving the pitch fader changes the speed of the music, but not its tone
Echo: slightly delayed signals are added to the main signal: it adds a slight enhancement to the music, but you are not aware of it. You can be aware of it at the moment you push on the stop button, then you hear the echo of the music without the main music playback. This echo is not as strong as a reverberation (also called Reverb) effect.
Delay: A strongly delayed music is added to the main music.

6) Cue Points

Analyzing a sound track with Hercules Mobile DJ Mix automatically places
-        a Cue In point: a bookmark of the starting point of the music track in the DJ mix software
-        a Cue Out point : a bookmark of the moment the DJ mix software stops playing the track
for each analyzed sound track.
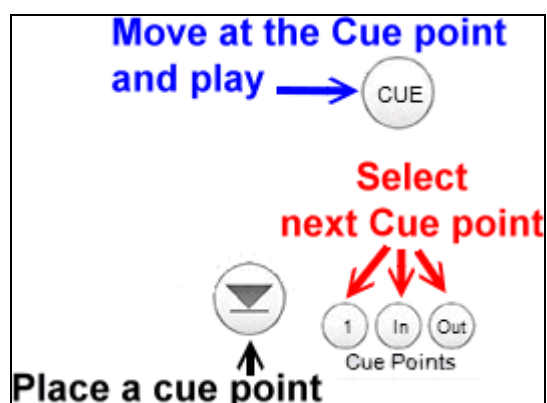
To create a Cue point:
1) Select next Cue point by pushing on button:
    ⇨ "In" for the first cue point, the start of the music
    ⇨ "1" for a second cue point, placed after cue In (you cannot place Cue "1" before Cue "In" or after Cue "Out"
    ⇨ "Out" for the "Cue out" point where the DJ software stops the playback of the track.

2) Place a Cue point at the moment you push on the button with triangle down: you place the cue point which you have previously selected
3) And if you type on the button Cue, the music starts playing at the position of the Cue point.
4) If you want to save the cue point, you must save the playlist: the cue point is not saved in the audio file, it is saved in the list file.

Example 1: change the Cue in point of a loaded music track:
1) Move in the music track at the position you want to select as the Cue In point
2) Click on Mobile DJ Mix "In" cue button,
3) Click on Mobile DJ Mix triangle down button.

Example 2: create a Cue 1 point of a loaded music track:
1) Move in the music track at the position you want to select as the Cue 1 point
2) Click on Mobile DJ Mix "1" cue button,
3) Click on Mobile DJ Mix triangle down button.

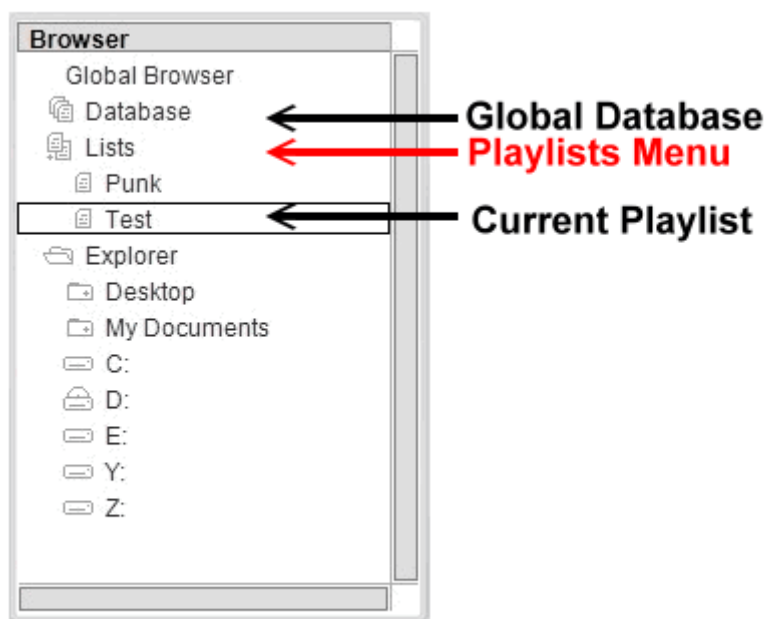The analysis of the Cue In / Cue Out point is in general
- relevant for music with a fixed beat and for dance / techno / country / rock music,
- irrelevant for music with changing rhythms, as for example classic music, pop songs starting with vocal solos, slow electronic music and in general music whose rhythms are far from techno/dance...

If your music tracks have bad cue points, the solution is to define your own Cue In / Cue Out points for each music track:
1) load the music file
2) browse in Mobile DJ Mix software (with the slider over the waveform) at the point of the waveform where you want to place the Cue In point
3) Click on the "In" button of Mobile DJ Mix software interface, to define the point which will be the Cue In point,
4) Click on the button with a triangle down on Mobile DJ Mix software to set the Cue In point,
5) browse in Mobile DJ Mix software (with the slider over the waveform) at the point of the waveform where you want to place the Cue Out point (the end of the music playback)
6) Click on the "Out" button on Mobile DJ Mix software
7) Click on the button with a triangle down on Mobile DJ Mix software to set the Cue Out point
8) Once the Cue In and the Cue Out points have been saved for the music track, save the Playlist with the button "Save".
If you don't save the playlist after changing the cue points, the new cue points won't be saved.

7)   Browser

8)   Files List

The file list gives a preview of the complete tags of the audio file.

- o   if your music files have no BPM and duration for the audio files, then you should analyze the file(s) (see 2)b) Audio Library: analyze your database)
- o   if, after analysis, an audio file has no BPM, then it means it has no stable BPM (either the BPM changes a lot, as in classical music, or there is no BPM, as in spoken recordings)
- o   when a music is listed in red, it is the next music you will load if you click on the button "Load"

9) Database Management
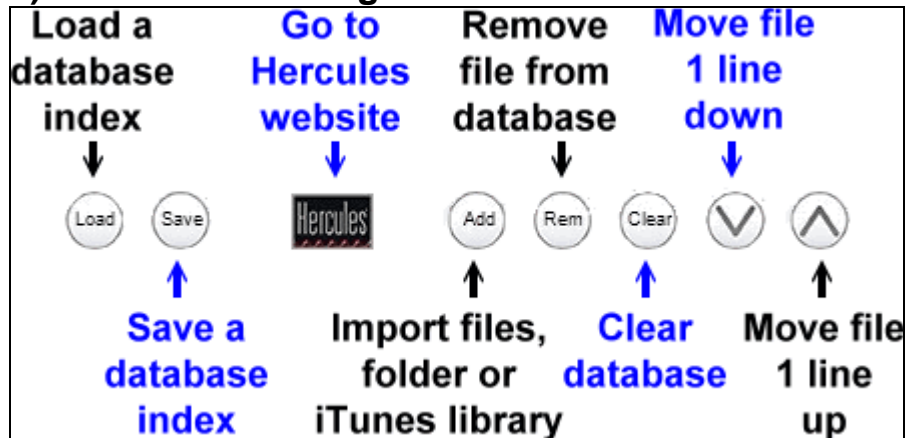
10) Other functions

- Position in the preview   this is the moment inside the track you hear in Preview mode, the left side is the start of the music, the right side is the end
- Set Preview On/Off: click on this button to enter into preview mode, the previewed file will be the music file selected in the file list. When the preview is active, the preview button is red.
- Random playback: the music files are played in a random rank. When the random playback is on, the Random button is red.
- Search: you can type here the chain of character you look for, the software will compare it with the music titles and artist names in the database.
- Reset Search: this button cancels the research and displays all the files of the database
- Learn Shortcuts: this button lets you assign functions of Mobile DJ Mix to your computer keyboard: to assign a function A (of Mobile DJ Mix) on a key (a) (of your keyboard), once you are in Learn shortcuts mode, press on button A on Mobile DJ Mix software and then on key (a) of your keyboard, and it is enough. Once you have left the learn mode, pressing on button (a) of your keyboard starts the function (A) in Mobile DJ Mix software. Some keys cannot be assigned on your keyboard (for example, the space bar is already assigned to the search function).
- Record DJ Mix: clicking on this button lets you choose the directory and the name of the Wav PCM file you create, by default in 16-bit, 44.1KHz, stereo. During the record, the Rec button is red. When you click again on the button, it comes back to its default colour, and the record is over.
- Configuration: this function lets you choose the preference settings for Mobile DJ Mix session
- About DJ Mix   this button mentions the version of Mobile DJ Mix.

11) VU meters
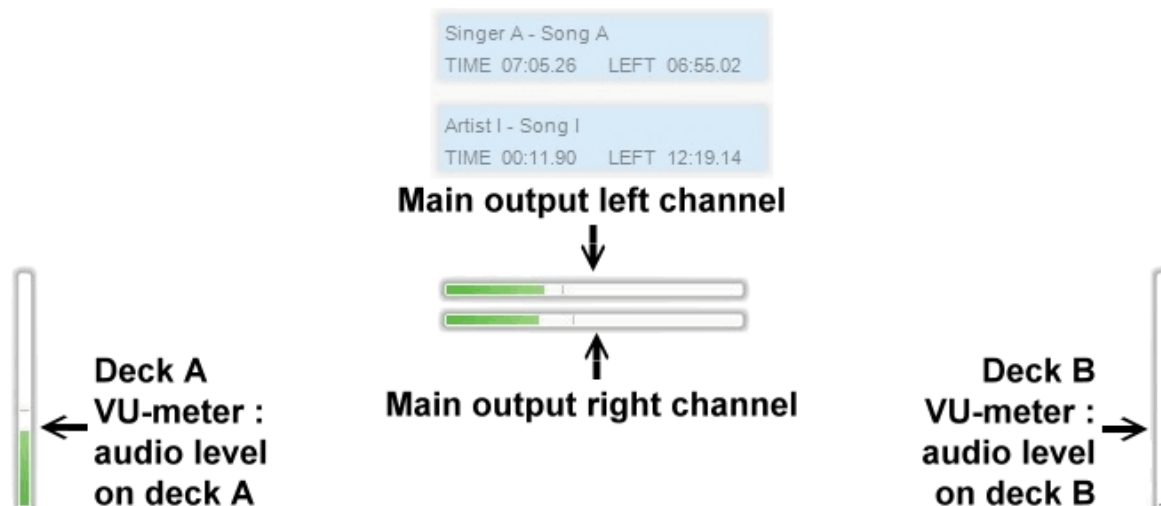
The VU-meters let you see instantly on which deck the audio signal comes from.


II) Configuration
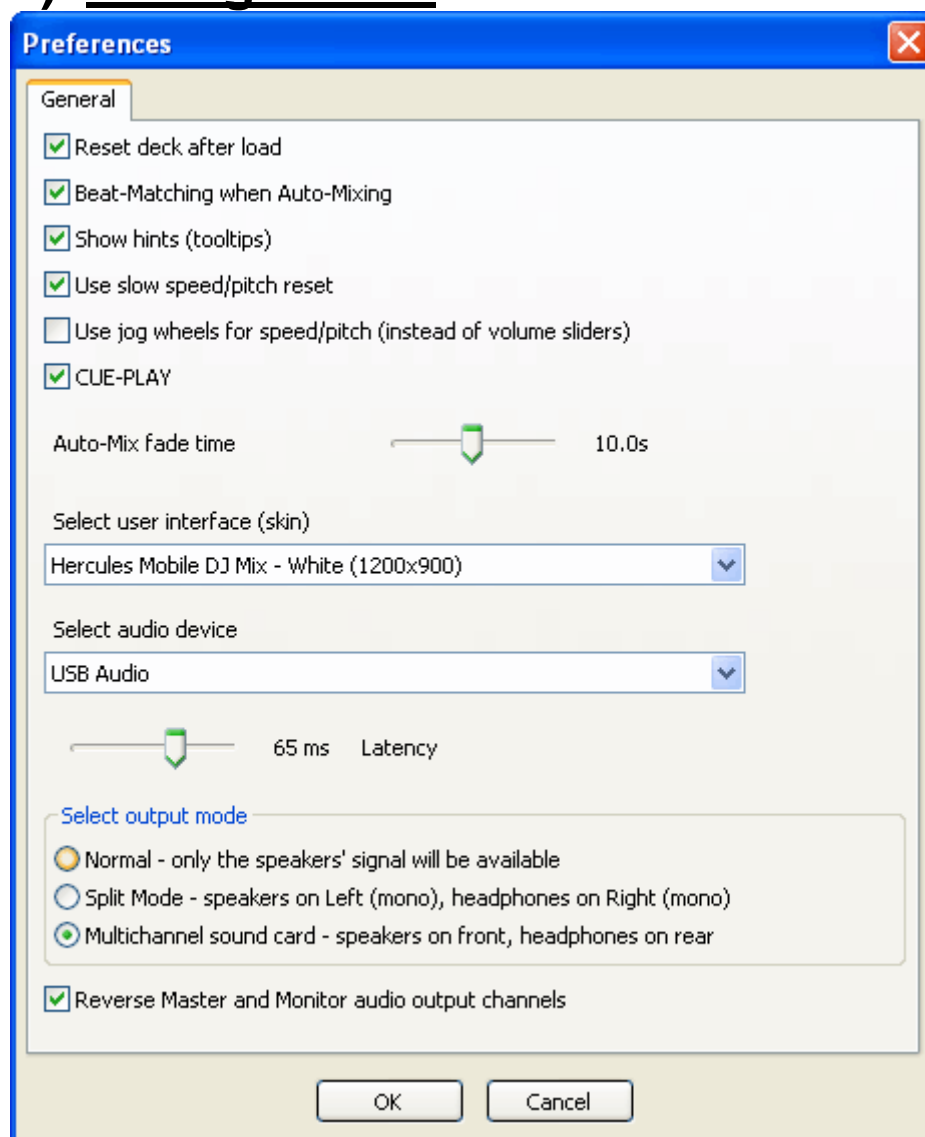
1) Reset deck after load

▪ Enabling this option resets the EQ (Gain, Treble, Medium, Bass, Filter) each time you load a new file on a deck.

▪ It this option is disabled, you keep the EQ settings of the previous loaded file when you load another music track on the deck.

2) Beat Matching when Auto-Mixing

This setting means that in Automix mode (when the DJ software mixes the music of the database /playlist with no intervention of a DJ), the software synchronizes the BPM of the music tracks when it is possible, which means if the BPM of next music track is not further than 16% of the current music track, the software will synchronize the speed on next music track on the speed on the current music track, to make dancing easier.

If this option is Off, then next music will be played at its standard speed, with no speed adjustment over the previous music.

3) Show hint
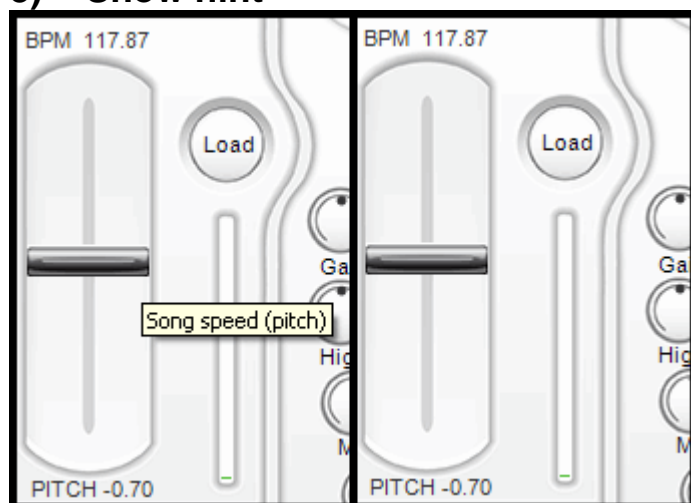
This setting enables tooltips so that placing the mouse over any button gives an indication of its function.

4) Use slow speed pitch reset
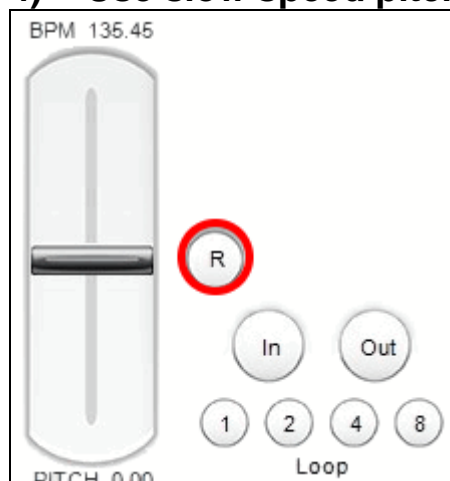
This setting enables makes a gradual pitch reset when pushing on the Pitch Reset button (R) instead of an instant reset. It is easier for dancers to adapt to a gradual speed change of the music than to keep on dancing with an instant pitch change.

5) Use jog-wheels for speed/pitch (instead of volume sliders)

Hercules Mobile DJ MP3 has no pitch faders, so to change the pitch, the DJ must push on Mobile DJ MP3 controller pitch button, and change the pitch on the volume fader.

The user who prefer to set the pitch on the jog wheels must activate the option "Use jog-wheels for speed/pitch (instead of volume sliders)".

6)   Cue Play
Pushing on Mobile DJ Controller Cue button starts the playback at the Cue point:
▪   if the Cue Play option is on, the playback keeps on when the DJ releases the Cue button
▪   if the Cue Play option is off, the playback stops as soon as the DJ releases the Cue button.

7)   Auto-mix fade time
This slider lets you decide the time the automatic mixing takes to switch from the music on 1 deck to the other. The default setting in 10 seconds.
This setting has no impact when you do active mixing, this option is active only if you let the software in auto-mix mode.

8)   Select user interface (skin)
You have by default 3 skins:
-   the white skin (default skin),
-   blue skin (which can be seen as black, depending on yout computer screen setting)

-   and New Wave skin

each of these skins are in 2 resolutions (900x675 and 1200x900).

If you enter in 1200x900 resolution while your computer screen resolution too low (for example 1024x768) to let you reach afterwards the Configuration button, a duplicate of the configuration button is also placed on top, close to deck A volume slider.

9) Select Audio Device
This option lets you select the audio device on which you play your music (and possibly your monitoring).

▪ The monitoring can be operated only on the same device as the device on which you play the music, you cannot monitor the mix on a separate device from the device on which you play the mix (for example, you cannot monitor on a USB headset while playing the mix for the audience on an internal PCI card).

▪ The selectable audio devices must be available when you launch Mobile DJ Mix: if you plug on your PC a USB sound card after launching Hercules Mobile DJ Mix, you must close and launch again Hercules Mobile DJ Mix to select this USB sound card.

10) Select Latency

The latency is the response time of your audio device to your instructions.
The default latency if 65 ms (milliseconds), and you can go from 5m to 98ms.
If you are not an expert, you should keep the default latency.
If you are an expert, you know reducing the latency takes more CPU time and so allocates less CPU resources for the DJ mix algorithms, and if you request a latency your sound device cannot support, then the audio quality becomes bad.

11) Output mode

You must choose 1 mode among 3 modes:

▪ **Normal - only the speakers' signal will be available**
   This mode provides no monitoring. If your sound card is stereo, you must select this mode.

▪ **Split Mode - speakers on left (mono), headphones on right**
   This mode is good only with high end audio interfaces, since basic sound cards have not a perfect separation between the left and the right channels, so that your monitoring on right channel will be slightly audible for your audience on left channel.

▪ **Multichannel sound card – speakers on front, headphones on rear**
   This mode is the recommended if you have a multiple channel sound card. You can place your headphones on the rear output (output 3/4 on a 4-channel sound card, output 5/6 on 5.1 sound card, output 7/8 on a 7.1 sound card) and connect your speakers on the front output (output 1/2).

   If your headphones impedance exceeds 64 ohms, the rear channel output level may be not amplified enough to amplify the headphones, so you may need to enable the option "**Reverse master and Monitor audio output channels**"
   Then,
   o   the sound card front output (which may have a preamplifier) will play the monitoring
   o   the rear output will play the mix.

III) Audio library

Hercules Mobile DJ Mix can read audio files with the following extensions: MP3, WAV, WMA, M4A (AAC or Apple Lossless Encoder files), AIF (AIFF files).
The audio codec must be already installed in your PC to read each format: for example, to read Apple formats, so you must have installed iTunes for example.
You may also load and play video files (as .MOV, .MPG, .AVI files) but with video window so mixing video files in Hercules Mobile DJ Mix is of no use.
You cannot read and mix DRM protected files in Hercules Mobile DJ Mix, so if you buy music files online, make sure it is not with DRM protection.

1)   Import audio files in Hercules Mobile DJ Mix database

You can import audio files in the database in 4 ways.
First, in Mobile DJ Mix Browser, enter in the Database field.
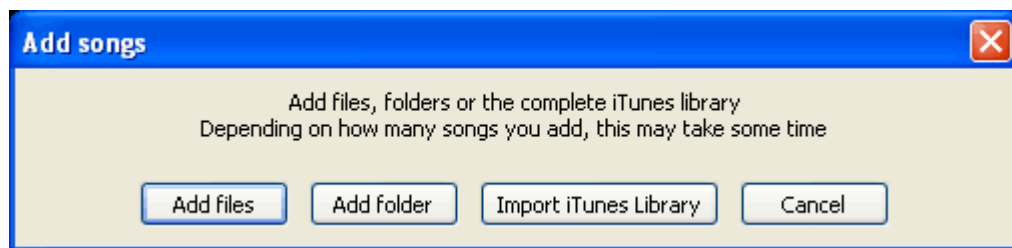
a)   Import your iTunes library

It is necessary that the iTunes library is in MP3 format, (iTunes DRM encoded files are not compatible with Hercules Mobile DJ Mix), so take care you set iTunes to import audio sources in MP3 format if you want to use your iTunes library with other software.
Click on the "Add" button

A dialog box proposes to import iTunes library.

Click on Import iTunes Library.
Your complete iTunes library is added in the database.

b) Import a folder

Click on the "Add" button, and then on the "Add Folder" button, browse up to the folder you want to add, select it on click on OK.
Your folder audio contents is added to the database.

c) Import files

Click on the "Add" button, and then on the "Add Files" button, browse up to the folder you want to add, select the file(s) you want to import and click on OK.
Your audio files are added to the database.

d) Drag and drop files in the database

In Windows Explorer, you can select the files you want to import, and drag and drop them in Mobile DJ Mix file list window.
Your files are added to the database.

e) Save and update the database

You can save your database with the button "Save".
The database is an index of your audio files, so if you delete audio files on your hard disk, you must update your database to avoid to try to load music files which no longer exist. To remove from your database files which arte no longer accessible, right click in the file list, and, in the scrolling menu, select the option "Remove dead files".

2) Analyze your database

Once you have imported the files you want in your database, you must analyze the database.
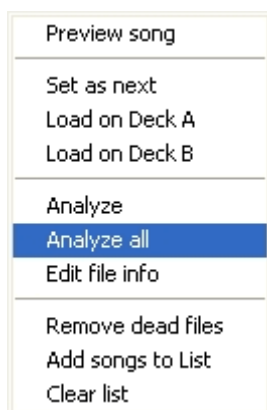It is necessary to analyze the files for 2 reasons:
1) to know the Beat Per Minute rates (BPM) of the audio files: the BPM is needed to know which files can be mixed together or one after another,
2) to display the duration of each music file in the audio list,
3) to let the software set automatically a Cue point, the point where the music is played for the audience, since dancing requires a music with a rhythm from the first second, and as most tracks start too slow for dancing, the DJ must either set a Cue point for each track, or use an automatic Cue point set by the DJ equipment.

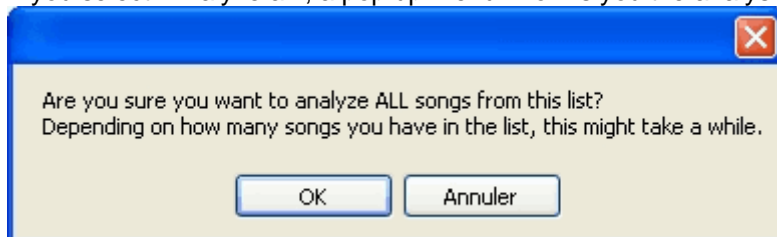To analyze the files, right click in the file list

No.	Title	Artist	BPM	Time	Genre	Com... ▲	Album	T
1	Song A	Singer A			Pop		Artist A	
2	Tune B	Artist B			Techno		Album B	
3	Track C	Group C			Pop		Album C	
4	Music D	Artist D			Jazz		Album D	
5	Song E	Artist E			Pop		Album E	
6	Song F	Artist F			Alternative		Album F	
7	Song G	Artist G			Pop		Album G	
8	Song H	Artist H			Pop		Album H	
9	Song I	Artist I			Jazz		Album I	
10	Song J	Artist J			Jazz		Album J	
11	Song K	Artist K			Classical		Album K	

and in the scrolling menu, select:
- "Analyze" if you want to analyze only 1 file,
- "Analyze all" if you want to analyze all the audio files of the database.

Preview song

Set as next
Load on Deck A
Load on Deck B

Analyze
Analyze all
Edit file info

Remove dead files
Add songs to List
Clear list

If you select "Analyze all", a pop up menu informs you the analysis can take a while.

Are you sure you want to analyze ALL songs from this list?
Depending on how many songs you have in the list, this might take a while.

OK   Annuler

With a few files in the database, the analysis goes fast, but with thousands of audio files, the analysis can take hours, so you must analyze your complete library before DJing in a party, not just when the party starts (but if someone at the party brings a few music files, analyzing them on the fly is no problem).

Once you have analyzed the audio files, you can read both the BPM of each music and its duration.

No.	Title	Artist	BPM	Time	Genre	Com... ▲	Album
1	Song A	Singer A	151.0	14:00	Pop		Artist A
2	Tune B	Artist B	115.0	14:49	Techno		Album B
3	Track C	Group C	138.5	14:59	Pop		Album C
4	Music D	Artist D	117.1	14:53	Jazz		Album D
5	Song E	Artist E	130.3	13:20	Pop		Album E
6	Song F	Artist F	098.0	17:12	Alternative		Album F
7	Song G	Artist G	105.1	06:09	Pop		Album G
8	Song H	Artist H	147.8	12:24	Pop		Album H
9	Song I	Artist I	135.4	12:31	Jazz		Album I
10	Song J	Artist J	078.7	12:49	Jazz		Album J
11	Song K	Artist K	109.8	12:28	Classical		Album K

If after analysis, some files have no BPM rate, then these files are not easy to automix, either the BPM is not stable (as in classical music, the same track can go from 70 to 120 BPM), or there is no audible BPM (some classic music have not enough beats to calculate a BPM, or spoken recording gives no BPM).
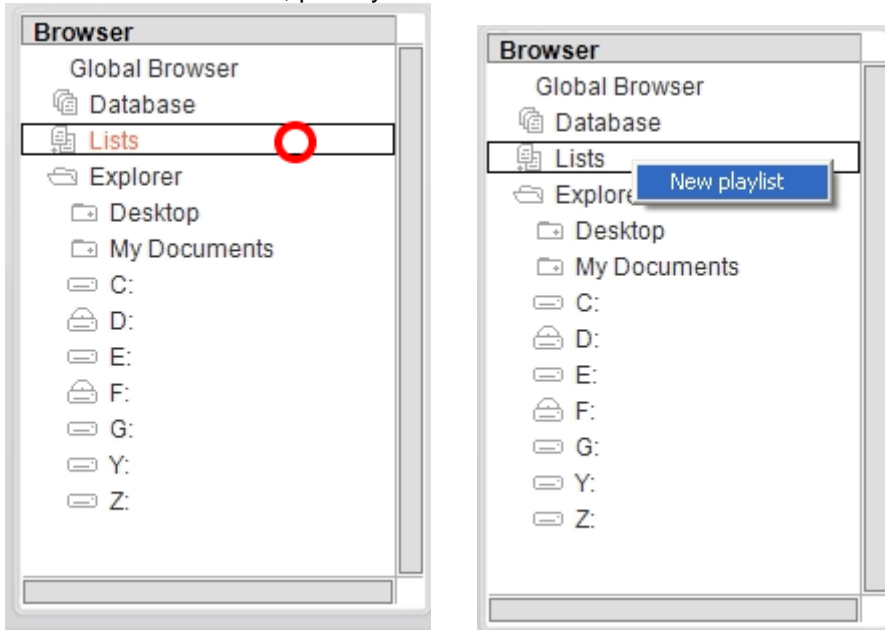
3)   Create Playlists
Your database is a global play list, in which you file all your digital audio.
You can then sort the audio files in playlists:
- for 1 party (the music files you intend to play in a specific party),
- per dancing style (slow, fast…)
- per music style
- per taste (the music you know fit with someone's taste)
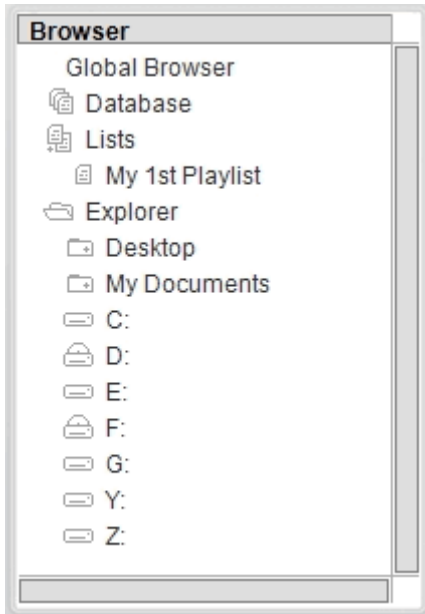- …..

In the browser windows, place you mouse on the line with "Lists" and click on the mouse right button.

It calls a menu with "New playlist": click on it: it calls a pop-up manu in which you must type the name of the playlist you create.
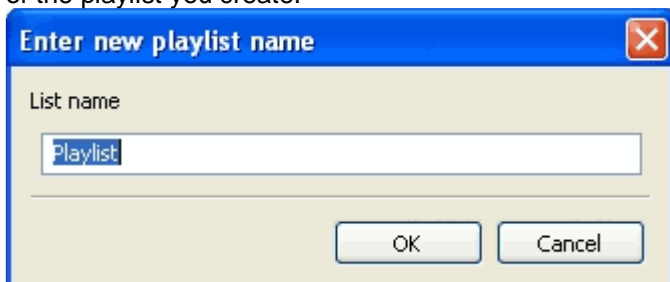
Once you have created one (or several) playlist(s), the playlist(s) is (/are) displayed in the browser in the Lists.


You can now drag and drop music files from the database to the playlists.

4)   Edit files information

To update the MP3 tag of an MP3 file (the text information you see in the file information, and which is displayed on your Mobile DJ MP3 embedded LCD), you mist select the MP3 file you want to update, right click with the mouse and select "Edit File Info" in the scrolling menu.
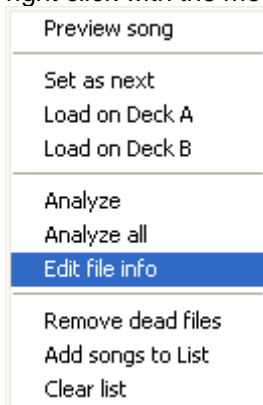
You can update the song, artist, album, music type and comments in the following window.
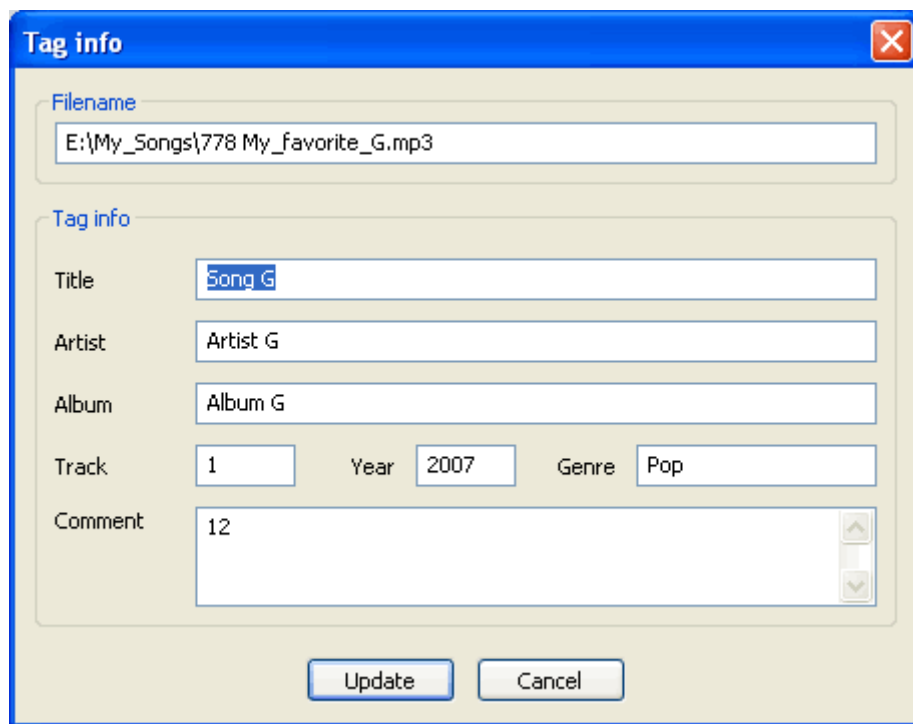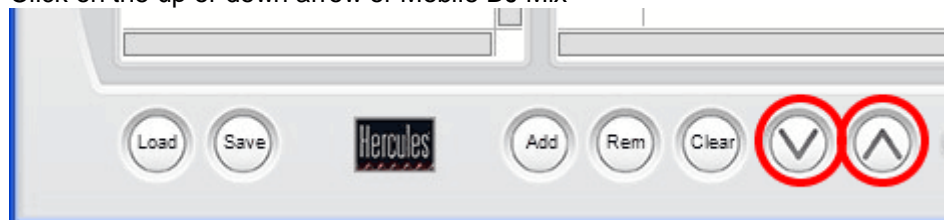
5) Rank files in Mobile DJ Mix database

You can rank the files in the database in 2 ways.

a) Sort the database file per file

Click on the up or down arrow of Mobile DJ Mix

Select the music file you want to move,
- click on down to move the audio file 1 line downward
- click on up to move the audio file 1 line upward

b) Sort the complete database

In the file window, click on any header (Title, artist, BPM, Time, Genre, Comments, Album, …) to index the complete database by title, artist, BPM, duration, genre…

Title	Artist	BPM	Time	Genre	Comment	Album	Track	Year	Filename
Music D	Artist D	117.1	14:53	Jazz	004	Album D	4		E:\Test_Mus
Song A	Singer A	151.0	14:00	Pop	001	Artist A	1	1962	E:\Test_Mus
Song E	Artist E	130.3	13:20	Pop	005	Album E	8		E:\Test_Mus

to

c) Save and restore a ranking in Mobile DJ Mix

Once you have selected a ranking for your complete database, you can save it by saving the database.

Click on Save button, enter a file name, and you save the index of the music track sorted in the rank you have defined at the moment you push on save.

Afterwards, if during the mix you don't find any longer your original rank, you can restore the original ranking by clicking on the Load button, a function which replaces the current database by the original database.


You can load a database during a mix, it doesn't stop the music, and the files loaded on deck A and deck B remain loaded, but the current database is removed and replaced by the original one, in its original ranking.

When you save a playlist, you don't simply save the index of the music files, you also save the ranking, so that the simplest way to save a ranking for a music list is to save the playlist, and you can have several playlists with the same files, but each with its specific ranking.

6) Remove files from the database (or from the playlist)

You can remove a file from the database, once the file to delete is selected
- either by pressing on Mobile DJ MP3 button "Rem" (for Remove)
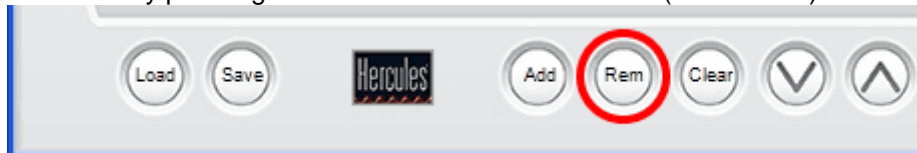
- or by pressing the button Delete (Del) on your computer keyboard.