

**VIRTUALDJ**

# User Guide

Professional Edition

Version 6

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# INTERFACE - ZONES

Before beginning to use VirtualDJ, familiarize yourself with the controls and “zones” of the software. Upon opening the application, an interface menu is displayed. Interfaces called “skins” feature different configurations, layouts and functionality of the software. Let’s begin by selecting “Internal mixer interface” to become familiar with the most important features of the software. To change to a different skin while the software is running, click on the “Config” menu and select the “Skins” tab.



## 1. BROWSER / SAMPLER / EFFECTS / RECORD

Browse your music folders, Create, edit and save your playlists  
Adjust effects video, and audio, Record and save mixes

## 2. DECK 1 CONTROLS

Drag and drop music from the browser to this virtual deck.  
Track title, beats per minute display, counters, Transport Control

## 3. DECK 2 CONTROLS

Drag and drop music from the browser to this virtual deck.  
Track title, beats per minute display, counters, Transport Control

## 4. CENTER PANEL

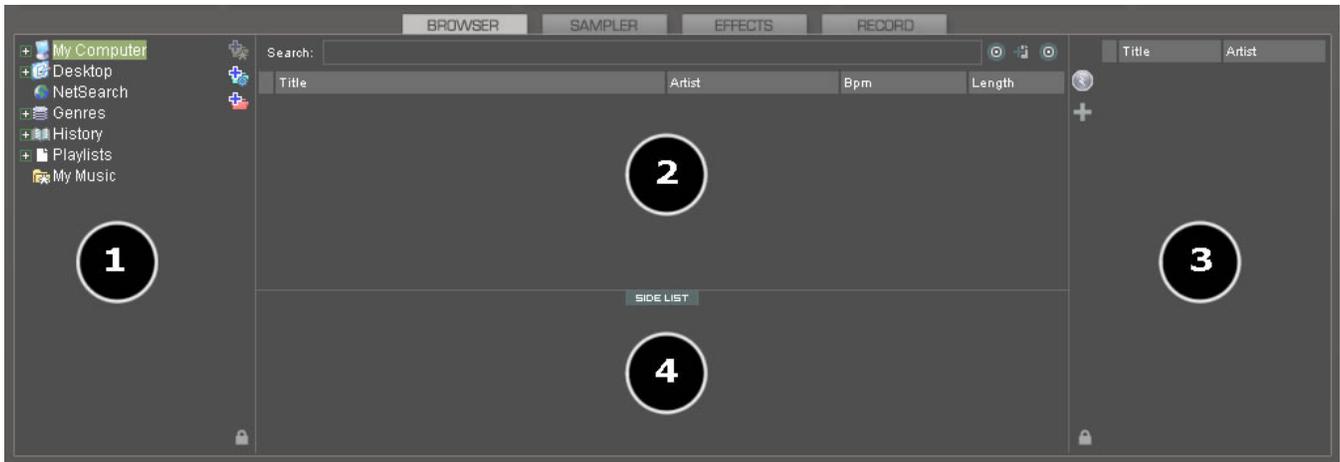
Multiple panels can provide access to Crossfader, Gain, Volume PFL Controls,  
Video controls, Video preview windows, Effect controls, Timecode Scratch Interface

## 5. RHYTHM WINDOW

This window tracks the waveform of each song loaded or playing on a deck. This area also features a Computer Beat Grid (CBG) used for visual mixing and beat-matching.

## BROWSER

The Browser Zone is the area where to navigate and organize files stored on a local, external, or network hard disk. The browser contains the compatible file types (i.e. whose extensions are associated with the decoders in VirtualDJ) to access the compatible extensions list. Click the “Config” menu then choose the “Codecs” tab. See the “Codecs” section of the manual for further details.



The Browser zone is divided into panels.

1. **File System / Folder Structure**
2. **File / Search Results**
3. **Automix Playlist**
4. **Sidelist**

### File System / Folder Structure Panel (1)

VirtualDJ provides several organizational groupings of the track collection and a few third-party interfaces by default. Also provided is the ability to create additional navigation aids. To better understand the managed groups and interfaces click the “Config” button and view the “Browser” tab.

The “Browser” tab allows the selection of the various groupings that can be viewed. Each item ‘checked’ will have an associate entry on the File System / Folder Structure panel (1).

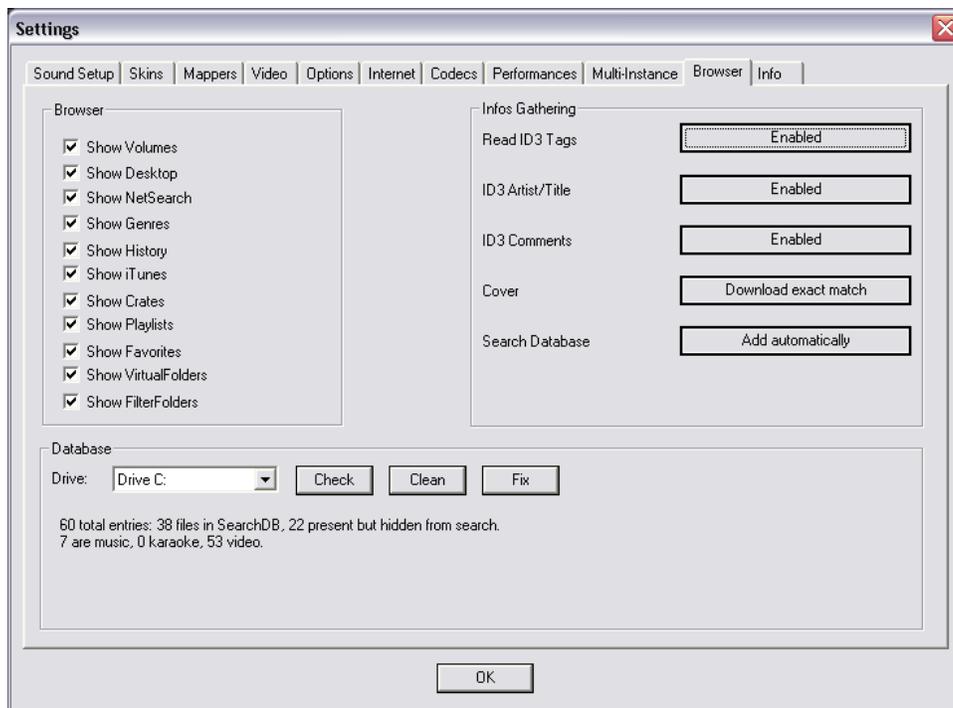
**Volumes** – shows the File System navigation option from the My Computer structure

**Desktop** – shows the File System navigation option from the Desktop structure

**NetSearch** – NetSearch provides access to searching the Internet to try to find the song you're looking for. You can then instantly stream the song or video directly off the Internet.

*\*\* To learn more about this feature and additional features that compliment the NetSearch capabilities, visit our website at [www.virtualdj.com](http://www.virtualdj.com).*

## BROWSER



**Genres** – provides a generated tree of Genre types based on the imported ID3 tag Genre field. By selecting on the various listed genres the file browser panel (2) only shows those entries that match the tag.

**History** – provides access to data stored about each session use of VirtualDJ. The data is stored as .m3u playlist files and it is stored in the My Documents -> VirtualDJ\Tracklisting folder. History data is saved on the fly in order to provide running history of played tracks for each 24hr timeframe of use.

**iTunes** – displays iTunes playlists and uses the information in the playlist for accessing files. If the files don't exist per the playlists path, an 'Error' shows up in the deck's display when attempting to load the track.

**Crates** – allows access to the crates structure created and utilized by the Serato ScratchLive application.

**Playlists** – show or hide the contents of the My Documents -> VirtualDJ\Playlist folder. This is where an Automix playlist is saved by default.

**Favorites** – show or hide any created folder favorites, created from a right-click on a folder in the Desktop navigation structure and selecting "Set as favorite" from the menu or by using the  icon on the panel's right divider bar.

**VirtualFolders** – show or hide any created VirtualFolders created from clicking on the  icon found on the right divider bar

**FilterFolders** – show or hide any created FilterFolders created from clicking on the  icon found on the right divider bar

## File / Search Results Panel (2)



VirtualDJ provides several elements of information about each track. The information is a combination of ID3 Tag and VirtualDJ defined data fields. By default the title of the song and artist are listed for each file along with columns for beats per minute (BPM) and duration (Length) with additional columns, explained further in the manual (page 13). The width size for each column can be modified individually and by clicking on a column the contents are sorted. For example, clicking on the artist column sorts the browser by artist initially in ascending order. Click again for descending.

The tracks title and artist are automatically filled in, if the file is named according to two standard conventions, i.e. (artist) title.ext OR artist - title.ext OR the “Tags” option is set to “Enabled” in the “Config”, “Browser” tab, and Infos Gathering section. See the “ID3 tag Support” section of the manual for further details.

The BPM and length information are calculated automatically when a track is loaded to either deck. All track information is then stored inside the respective drive database files for later recall. And all data is stored and saved at time of discovery or data entry immediately to the database(s).

### Icon key



This title is unknown and was never played or scanned by VirtualDJ.



This title is known and has been scanned by VirtualDJ.



This title was played during this session.



Indicates an audio file with a linked video.



Indicates a video file.



Indicates a karaoke file.



Indicates that the BPM difference between the analyzed song and current playing song is too great. This is a track that you might wish to avoid playing next.

## AUDIO AND VIDEO TAG SUPPORT

VirtualDJ supports ID3 tagging of MP3 audio files and MP4 and MOV tagging of video files. VirtualDJ has always provided the fast access about one's collection by using VirtualDJ's database. Adding direct tag access to every file considerably slows applications ability for timely browsing and searching.

VirtualDJ retrieves and stores the tag information in similar fields as part of its own database. The tag information stored can be updated at anytime using the VirtualDJ file menu. Since tag data is not directly accessed, any of the information can be changed using the File Info dialog and it will not affect the tag info of the file.

*\*\* VirtualDJ currently supports these types – ID3tags (MP3), MP4, MOV*

### Retrieving Tag Data

This can be accomplished in several methods at different points in time. The first and most common is using the Config -> Browser tab's options in the Infos Gathering section.

#### TAGS

- **Enabled** – Supported tag fields (BPM, Album, etc.) are read immediately when track first seen.
- **Disabled** – Tags are not read and need to be added manually through the browser interface.

#### ARTIST/TITLE

- **Enabled** – If the corresponding tags do not contain data for the Title and Artist fields then the filename is parsed and used for those fields. Parsing format of the filename is Artist – Title.
- **Disabled** – Do not read the tags and use the file name parsing.

#### COMMENTS

- **Enabled** – Load the tag Comment field when track first seen.
- **Disabled** – Do not load the tag comment field

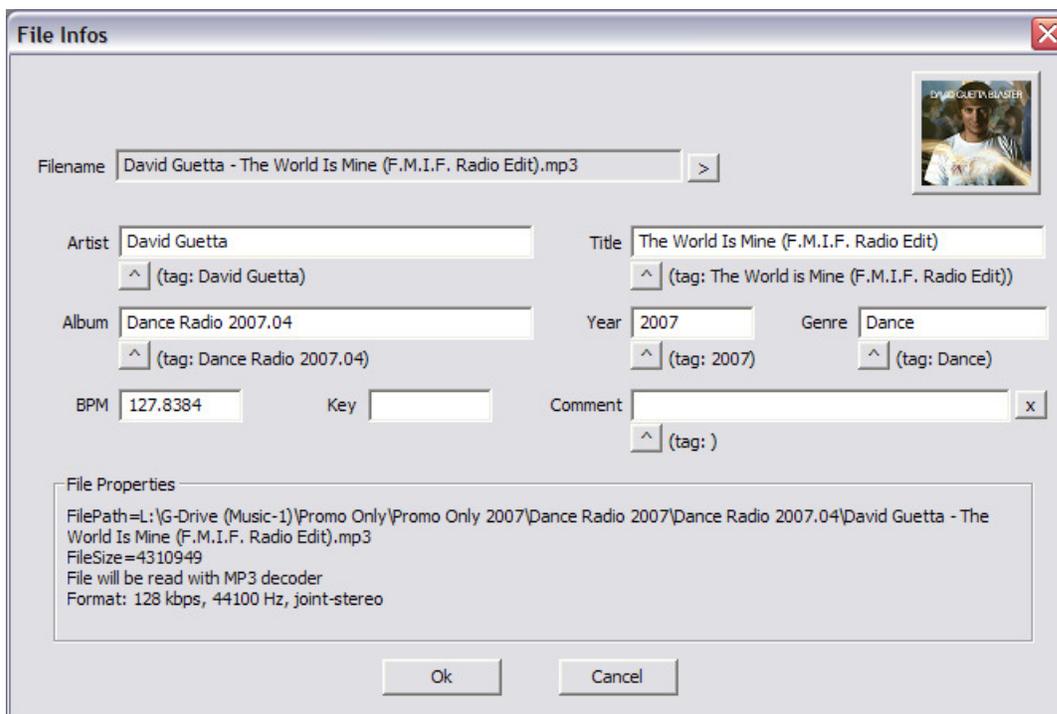
#### COVERS

- **Local Search Only** – for the CoverFlow viewer files already locally stored will be used (to include ID3tag embedded)
- **Download Exact Match** – if no cover found locally, download a cover that only matches based on the song's information
- **Download No Matter What** – if no cover found locally, download anything that closely matches using the song's information
- **Don't Search** – don't ever look for covers if no cover exists

Alternatively, tag information can be retrieved by using a right-click on a specific track in the browser and selecting File Info. The figure on the following page gives an example of the database stored information along with the corresponding tag information that is retrievable.

Under each field with a  button will have the tag info next to it that can be read from the tag. Click on the button to copy that data into the VirtualDJ data field. This data will be stored and used by the VirtualDJ database. The  next to the FileName field is used to parse the file name into the Artist and Title fields.

# AUDIO AND VIDEO TAG SUPPORT



Another method of retrieving tag info is through the browser directly with multiple files selected. Right-click on a group of selected tracks and then make a choice from the following File Info menu options:

- Title from tag
- Title from filename
- Reload tag
- Erase comment
- Download cover



## Displaying VirtualDJ data field columns

In the file browser (2) or playlist panels (3) right clicking on any column and choose from the pop-up list any or all of the available data fields now stored in the VirtualDJ database.

Changing the order of the columns is very easy by selecting the Order... option from the bottom of the list. Then in the presented dialog choose the order by highlighting the field and using the up and down arrows. Also add or remove fields from the display by selecting the check box for the field.

You can also select what you want displayed in the browser by clicking on the second bull's eye circle to the right of the search box and chose from the Show Covers, Show Music, Show Videos, and Show Karaoke options.



## AUDIO AND VIDEO TAG SUPPORT

Here is a screen shot of the fields being displayed in the browser –



TITLE	ARTIST	ALBUM	GENRE	BPM	KEY	LENGTH	BITRATE	YEAR	COMMENT
Sugar Dumplin	John Goudy	Soul Street - Compilation		142.9	06A (Gm)	3:43	192		
Something Smooth	Rick Strickland	Soul Street - Compilation		109.5	09A (Em)	4:35	192		
Lovin' On Ocean Drive	Tim Cashion	Soul Street - Compilation		120.0	09A (Em)	4:01	192		
Summer Sunshine	Tim Casion	Soul Street - Compilation		122.0	12A (C#m)	4:48	192		
No One Loves You Better...	Rickey Godfrey	Soul Street - Compilation		150.3	10A (Bm)	2:52	192		
Too Late	The Sand Band	Soul Street - Compilation		113.0	08A (Am)	3:59	192		
When You're Only Lonely	Marty Ojeda	Soul Street - Compilation		142.7	03A (A#m)	3:28	192		
Till The Day After	Craig Woolard	Soul Street - Compilation		106.0	12A (C#m)	3:36	192		
Summer Sunday	Nicolas Bearde	Soul Street - Compilation		108.0	10A (Bm)	4:20	192		
Chasin Dreams	North Tower	Soul Street - Compilation		* 107.0	08A (Am)	3:30	192		
Nine Times A Man	Wilson Picket	Soul Street - Compilation		91.5	08A (Am)	4:46	192		
Back That Thang Up	Tyrone Davis	Soul Street - Compilation		* 108.9	11A (F#m)	3:25	192		
TLC	Batson & Chase	Soul Street - Compilation		115.0	06A (Gm)	3:18	192		
Other Side of The Cloud	Danny Brooks	Soul Street - Compilation		* 114.1	12A (C#m)	3:44	192		
Your Grace Is So Good	Mac & J Thompson	Soul Street - Compilation		115.0	07A (Dm)	3:34	192		
It Doesn't Get Better Tha...	Mark Roberts	Soul Street - Compilation		* 118.0	05A (Cm)	3:37	192		

[Typical ID3 tags + Key field]

### Additional VirtualDJ Data Fields

The VirtualDJ database now stores additional data about each track for additional search features and Filter folders.

- **Key and Key (Number)** – stores the analyzed key value of a song
- **Play Count** – stores the running play count of the track
- **First Seen** – stores the date of when the track was first added to the database
- **First Play** – stores the date of when track was first ever played.
- **Last Play** – stores the date of when track was last played
- **Drive, Filepath, Filename, Filetype, Filesize, Filedate** – shows the current known Drive, Filepath, Filename, Filetype (extension), Filesize, and Filedate for the track
- **LinkedVideo** – shows the filename of the video file linked to the track.
- **Composer** – used for storing the Composer information for a track.
- **BPM Diff** – dynamically displays the BPM difference compared to the currently playing track.
- **Key Diff** – dynamically displays the Key difference compared to the currently playing track.

### Key Visual Indicators displayed in the Browser

**Asterisk ( \* ) in BPM column** – identifies tracks that have a pronounced beats per minute (BPM) rhythm for use with Beatlock and Tempo Automix features

**Exclamation ( ! ) in Time column** – indicates that the file is corrupted (probably following a bad copy) and that it may finish abruptly or there may be excessive noise in the track

## DATABASE MANAGEMENT

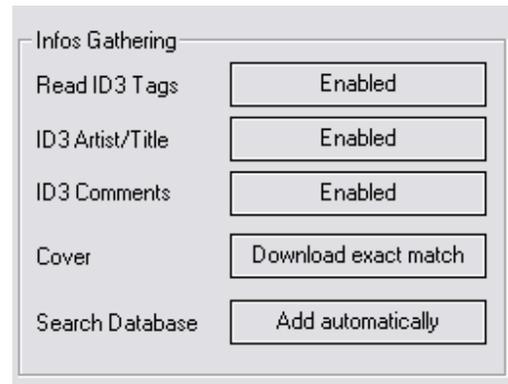
The database management system comes with additional tools found on the Config -> Browser tab.

- Save 'On the Fly' during each session use
- Automatic check of database integrity at start
- Manually check the database integrity
- Fix database error(s)
- Clean out database entries for missing/moved files

VirtualDJ updates and saves the database immediately when changes are made. At start of the application the integrity of the database file(s) are validated. If a problem is detected a message box will be displayed identifying which database has the problem with a recommendation of how to fix the problem.

Usually the database only needs a Fix - here are the steps:

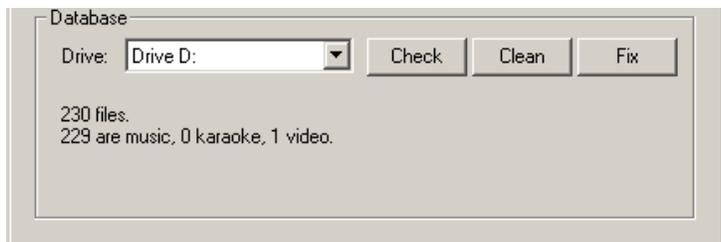
1. Open the configuration dialog
2. Go to the Browser tab
3. Select the Drive from the drop-down
4. Click the '**FIX**' button



Other options for managing the database(s) are -

**CHECK** – this runs a validation of the database to ensure that all database file references are still valid and existing stored files on that drive. The process simply re-labels the FilePath entry for the file if it can not be found. Data about that file is not lost.

**CLEAN** – this process will REMOVE any database information about files that are no longer valid. This is necessary for cleaning up the Global Search capabilities.



VirtualDJ provides an intuitive on the fly search capability. Adding files to the global search is quite easy and can be done in two ways.

## GLOBAL SEARCH

First is by setting the 'Search Database' property in the Configuration's Browser tab to 'Add automatically'. This will add any files not already part of the search (new additions) when browsing the folder structure of your collection.

The other option is 'Add manually', requires using the 'Add to Search DB' option to be selected on the actual entry in the main browser interface and then right-clicking and selecting 'Add to Search DB'.

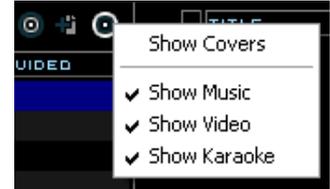
In either scenario, once added to the Global Search; the ability to find the file is always available when doing a search. The difference is in the results display of the search determines if it is in the currently selected folder or elsewhere in the system.

## SEARCHING

The search field is located at the top of the browser panel. To search the files listed in the database, left click on the search field then type your search text.

Searching is instant and it is generally not necessary to type the text in its entirety — a few letters are enough to reduce the list to the single title.

If you want to limit the search results to specific types of file, click on the second bull's eye circle to the right of the search box and chose from the Show Music, Show Videos, and Show Karaoke options.



If your search does not produce any results you can 'save' the search criteria to a special text file. Click on the  graphic between the 2 bull's-eyes. This allows for a list to be created that can be used as a 'need to buy' list for improving your collection. This file is called "SearchLog.txt" and can be found in your My Documents -> VirtualDJ folder.

In the following example, a search on 'ba' is entered into the search box. The center file browser panel displays the results of the search. The file(s) listed above the dividing line represent the file(s) found in the folder that is currently highlighted in the left folder browser panel. All other files below the dividing line are files that exist elsewhere in the database.



### What can be searched?

Just to the right of the search box there is a "search fields" selection button. Click on the bull's eye circle and a list of searchable fields is presented.

Depending on what fields are selected the search results will vary. To ensure maximum results for all searches, select all the fields and the maximum search capabilities are available (however, may produce more than what you want).

To view your entire collection contents just enter an asterisk ( \* ) as the search string and now the entire database is displayed.

To search based on BPM, enter a beginning and ending range (110-120) and with the BPM column selected, the displayed results are tracks in the range of 110 to 120 BPM.

When using the "Key" as a searchable field both the Key and Key (Number) fields are searched.



## NETSEARCH

NetSearch is an online searching capability that can provide the user with access to tracks not currently in their collection. NetSearch also leverages VirtualDJ's MusicGroup service for providing suggestions of other tracks that one could play based on the current track playing.

NetSearch can be used by either selecting the NetSearch option from the left navigation panel or by having the NetSearch options activated in for the entire database.

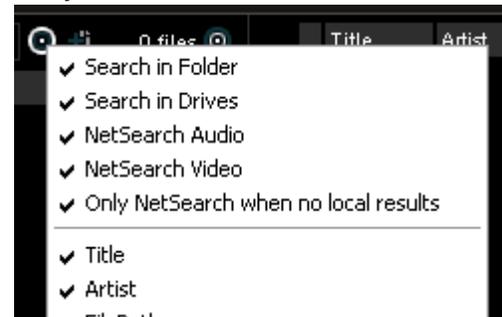


In the figure above, the NetSearch option is selected on the left with the options to search both Audio and Video using the search options button to the right of the search box.

Alternatively, when any other item is selected from the left navigation panel, you can adjust the NetSearch options for when **not** on the NetSearch entry.

Note the option for using NetSearch when there are no results for your current collection. With the "Only NetSearch when no local results" is selected, then VirtualDJ will reach out to its search service and provide you with results from the net. If unchecked, the results will be displayed in the following order – Local Selected folder results, Entire collection results, and NetSearch results. Each separated by a dividing line as mentioned on the previous page.

The options "Search in Folder" and "Search in Drives" is a quick way of removing your local database collection from the potential search results.



If "Search in Drive" selected, but not "Search in Folder"; there is no distinction whether the files are in currently browsed folder or not, it just displays the result from the search database.

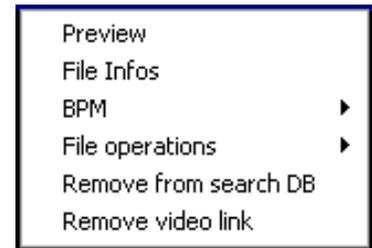
With "Search in Folder" selected, but not "Search in Drive"; it shows only the files from the current folder.

If both selected, the search show with a separation line between folder results and drive results.

## TRACK OPTIONS

Right clicking on a track displays many options:

- Preview – for launching the separate track preview interface
- File Info – for launching the File Info dialog to modify data field content
- File Operations like - copy, move, and delete files
  - When selecting Delete a warning is displayed about deleting the file(s) from your system
- BPM analyze track options – Re-Analyze or Manual Edit
- Add OR Remove songs from the search database
- Remove the link to a video file for audio tracks



## BPM ANALYSIS AND KEY DETECTION

The BPM Engine analyzes the audio to determine the tempo of the track. Analyzing a track can be performed 2 ways – Load the track to a deck or right-click on the track in the Browser panel and select BPM -> Re-Analyze. You can also analyze a group of tracks contained in a folder from the left Navigation panel, right-click on the folder and select Scan for BPMs.

If the tracks have been analyzed by an external application prior to being loaded into VirtualDJ and that value is stored in the BPM tag, the BPM Engine will use the stored value as a reference when analyzing the track. VirtualDJ will calculate a more precise value to a 0.05 BPM precision not more than +/- 1 beat per minute away from the value of the tag.

Part of the BPM Engine is also a Key Detection Engine. Determining the ‘musical key’ of a track provides the ability to harmonically mix tracks. The Key Detection Engine strongly favors minor keys, as most studio production songs are in minor key. But if the key is strongly major, it will be reported as a major key.

If you wish to manually ‘tap-out’ the beats per minute of a song, you can left-click to the beat on the BPM button of the appropriate deck playing your track. If you would like to assign a keyboard shortcut or assign a button on a controller, the mapping action beat\_tap action can be assigned.

Last, if the BPM (or the Key) is manually entered using the File Info dialog, then VirtualDJ will use the entered value and will not analyze the BPM or Key. If forced by selecting the BPM -> Re-Analyze function the track is re-analyzed without regard to existing data or how the data was entered.

## COMPUTER BEAT GRID (CBG) AND MANUAL BPM CORRECTION

Part of VirtualDJ’s BPM Engine is to calculate the Computer Beat Grid (CBG) of the track. The computer beat grid is a 4/4 beat measure indicator for identifying the timing gap of the track. This becomes helpful when manually beat mixing a track or using VirtualDJ’s synchronized play (SYNC), Beat Lock, or Automix Tempo Mix features.

### Adjusting the BPM and CBG:

In rare cases, when the BPM and the CBG is not correctly calculated, you can easily correct both manually by right-clicking on the appropriate BPM button of the appropriate deck for the track.

## COMPUTER BEAT GRID (CBG) AND MANUAL BPM CORRECTION

With the 'Adjust BPM Values' dialog you are provided several options to make the adjustments.

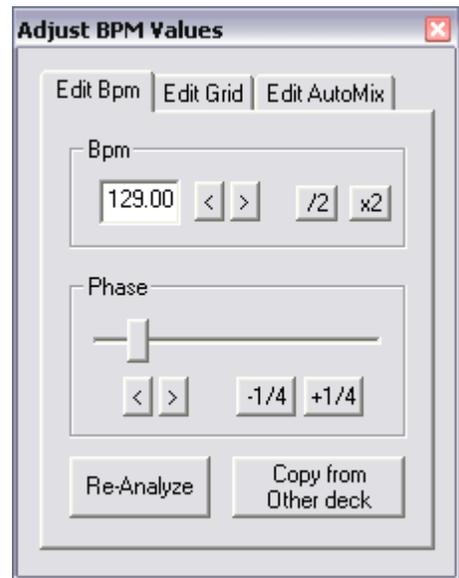
### EDIT BPM tab

**BPM** – manually move the value up or down in .1 increments with the arrow buttons. Or, quickly half or double the shown value with the /2 and x2 buttons.

**Phase** – used to adjust the CBG markers. The left and right arrows makes very fine adjustments, where the 1/4 +/- buttons provide 1/4 beat adjustments.

**Re-Analyze** – forces the re-analysis of the track disregarding any manual adjustments or settings.

**Copy from other deck** – copy the BPM of the track on the opposing deck to be use for the track being modified.



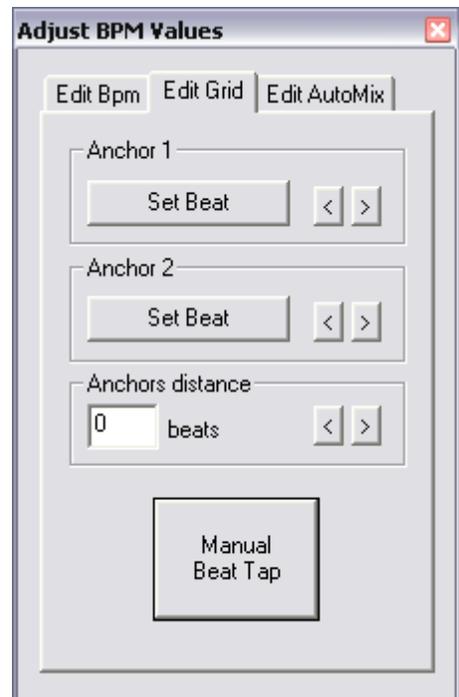
### EDIT GRID tab

Alternatively, an anchor method can be used. First tap-out the beat using the "Manual Beat Tap" button while the track playing.

Second, pause the track and move the track to the first downbeat (first beat), and click on "First anchor". Then advance to the upbeat (second beat), and click on "Second anchor". Check that the number of beats displayed corresponds well to the number of beats between the two anchors.

Then go further in the music, and repeat the "second anchor" operation. If you notice that the beats and the CBG shift then repeat the placing of the second anchor a couple more times. Normally two or three anchors should be enough to obtain an accurate CBG.

*\*\* For more information on how the CBG is used for beat matching, sync, and Automix Tempo mixing, see the section about the Rhythm Window later in the manual.*



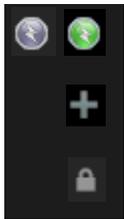
## PLAYLIST & AUTOMIX

The Automix feature works from a single deck. By default it is Deck 1; however, prior to starting the Automix if Deck 2 is selected as the active deck then Deck 2 is used. By utilizing 1 deck this frees the opposite deck for staging the first song to be used once you decide to stop the Automix process.

In addition to drag and drop, playlists can be created. Playlists are groups of tracks prearranged in a desired order of play. To Access the playlist, move your mouse or drag songs over the “Playlist” panel (3) on the right side of the browser. The window automatically expands to show the working area and current list if populated.



### Playlist Controls



Activate / Deactivate the Automix mode

Access the Playlist management menu

Lock the Playlist panel to a set width and block the auto-shut of the panel.

*\* You can also lock it and reduce its size to zero if you do not wish for it open automatically or be seen.*

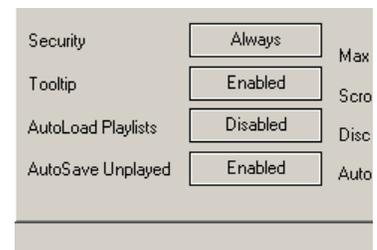
### Playlist Setup

Tracks to be auto-mixed can be placed into the Playlist panel from the File Browser panel (2) by using a drag and drop method. Also, predefined playlists can be used and auto loaded.

In the Config -> Options tab there is an option for “AutoLoad Playlists”.

The available values have the following functionality:

- **Disabled** – a contents of the play list are displayed in the center File Browser panel only
- **Always** – when a play list is selected in the browser the contents are immediately loaded to the playlist
- **Smart** – doesn't change the playlist when you click on a playlist folder, if the actual playlist has been manually edited



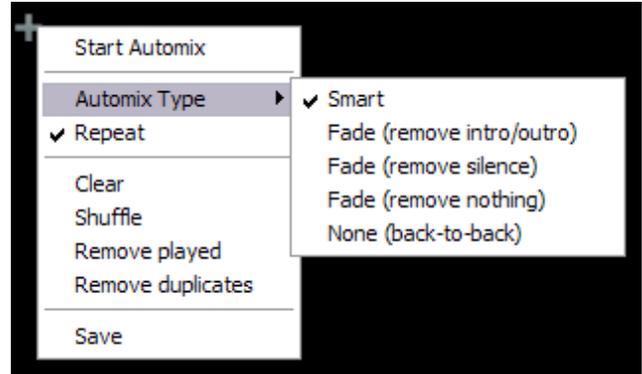
## PLAYLIST & AUTOMIX

### Playlist & Automix Management

Using the Playlist management menu by clicking on the [+] icon and choose from the available options for how the automix will function and tracks are managed in the playlist.

#### Automix Types – 5 modes

- **SMART** – VirtualDJ attempts to determine the optimal mix point based on the outro of the current track and intro of the upcoming track – mix time varies from ~4 to ~8 secs depending on the tracks
- **FADE (remove intro/outro)** – attempts to remove the dead air intro or outro segments and creates a crossfade point based on the settings of the Automix Length
- **FADE (remove silence)** – keeps the entire track from beginning to end while removing any 'dead air' or 'silence' that may be present in the track and creates a crossfade point based on the settings of the Automix Length
- **FADE (remove nothing)** – keeps the entire track from beginning to end and creates a crossfade point based on the settings of the Automix Length
- **NONE (back-to-back)** – this is a simple CUT mix that plays the files from complete from start to finish including any air gaps at the beginning or end

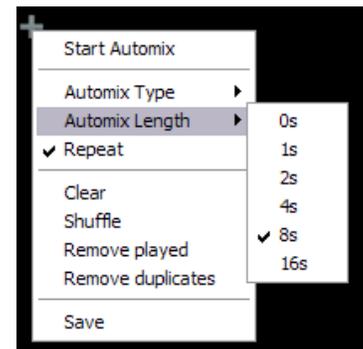


#### Automix Length

Length used for the Automix FADE types. Lengths are 0 seconds (CUT), or 1, 2, 4, 8, or 16 seconds fades using the FULL crossfade.

#### Repeat

Two different 'Repeat' options are available. When clicking on the options button ('+') the 'Repeat' option lets you repeat the whole Automix Playlist. Once all tracks have been played, the Automix will start over again with the first track in the list.



Prior to or during the Automix, right click on a song and select 'Repeat' to have that song continuously repeat until the 'Repeat' is deselected.

**Clear** – clears the entire playlist of all tracks

**Shuffle** – shuffles the contents of the playlist for play

**Remove played** – removes any already played tracks from the playlist

**Remove duplicates** – a removes any possible duplicates from the playlist

**Save** – provides function to save the playlist for future use. Saved playlists can be loaded from the Playlist option found on the left Navigation panel. Saved playlists are stored to the My Documents/VirtualDJ/Playlists folder

## PLAYLIST & AUTOMIX

### Deck Waveform Display – Mix Point Markers

When automix is active, the deck being used for automix play will show both the current track (top) playing and the next track (bottom) to be played. The currently playing track will display an EXIT mix point marker. The track to be played next will show an ENTRANCE mix point marker. Based on the Automix Type settings the markers can be moved within the tolerance of the type and time selections made. To change a mix point marker's position, left click on the marker and slide it along the waveform to the desired position.



### Sequential Order Play Display

The playlist navigation during automix play of what is playing and what is next is sequential from top to bottom (like most media players). The currently playing track is always highlighted. With the repeat option on for the entire playlist the navigation will return to the top after the last track is played in the list.

### Add, Move or Remove Track

Reordering tracks by adding more, moving their order, or removing can be done at any time. To include adding a new track as next, moving a track into the next play, or removing the next track with the following track now becoming the new next track.

### Jump and MIX NOW

While in the Automix ACTIVE mode, double-click on any track in the Playlist and VirtualDJ will use the assigned crossfade automix settings and mix that track immediately. Also the playlist will pickup from that point forward. It does not return to the left order location.

### Keyboard Shortcut Actions for use with Playlists

“Put in Sidelist / Get from Sidelist” – a keyboard shortcut action “switch\_sidelist\_playlist” provides the function for moving track lists between the two panels.

“Make Virtual Folder” – a keyboard shortcut action “vfolder\_fromplaylist” provides the function for creating a VirtualFolder from the current playlist contents.

## EDITING AUTOMIX MIX POINTS

Even with the mix point markers available for on-the-fly adjusts, the mix points for a track can be set prior to using that track as part of a automix playlist. The adjusted mix points are only utilized when using the SMART automix type.

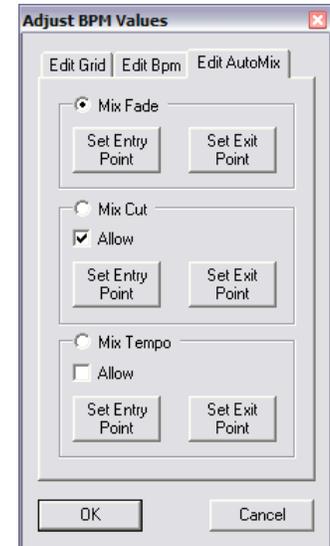
To edit a tracks Automix mix points, load a track to a deck, then select the respective BPM button for that deck. In the 'Edit BPM' dialog select the 'Edit Automix' tab.

Then select which kind of mix point to edit (Mix Fade, Mix Cut, Mix Tempo). Move the track to the position to use as the entry point, and click on the button "Set Entry", then bring it to the position of exit point, then click "Set Exit".

Repeat for Mix Cut and Mix Tempo if wanting to set those entry points. To give VirtualDJ the option of using the Mix Cut and Mix Tempo mix points place a check in the 'Allow' box for each mix type.

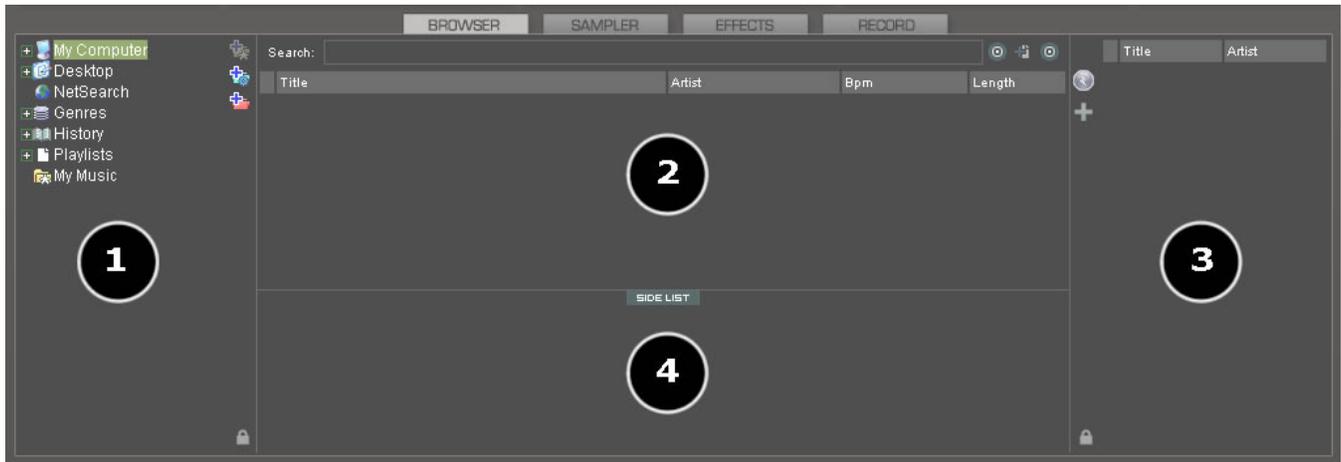
If the 'Allow' for Mix Tempo is checked on both songs the Mix Tempo points are used by the SMART automix when it determines if the two songs can be beat mixed. A song with Mix Tempo allowed has a asterisk (\*) next to its BPM value in the browser.

If the 'Allow' for Mix Temp is not checked, the SMART automix will then check if both 'Allow' for Mix Cut are checked. If yes it will do a cut mix (using the cut entry/exit points), otherwise the SMART automix mode will do a standard fade using the Mix Fade entry/exit points.



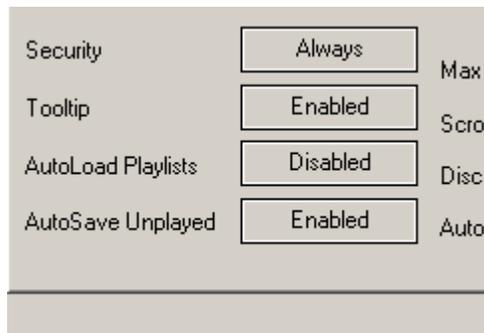
## SIDELIST

VirtualDJ incorporates its own version of a waitlist called the Sidelist. The Sidelist panel (4) can be used to hold tracks that you know will be played sometime during your session. It also provides a location for VirtualDJ to move tracks that were loaded but never played because a new track was loaded to the deck. The Sidelist can also be used to stage and construct Playlists and VirtualFolders by drag-and-drop of tracks to the panel.



### AutoSave Unplayed

When the option "AutoSave Unplayed" is enabled in the Configuration -> Options tab, all tracks added to a deck but then never played are added to the Sidelist when a track replaces it on a deck.



There are several Mapper commands for use with Keyboard Shortcuts that provide easy access to the Sidelist tracks for loading to a deck, clearing the entire list, and other actions.

- `sidelist_clear`
- `sidelist_add`
- `sidelist_load_and_keep`
- `sidelist_load_and_remove`
- `mix_next_sidelist`
- `switch_sidelist_playlist`

## FILE SYSTEM / FOLDER STRUCTURE ORGANIZATION

In order to simplify browsing and provide better and robust file management capability, VirtualDJ provides three (3) methods for the user to organize the database.

On the left panel's border are three (3) folder options



Create Favorite Folder (monitored folder)

– pick a folder from the drive to always display in the browser



Create Virtual Folder (unmonitored folders)

– create a folder for manually populating with specific files



Create Filter Folder (monitored folder)

– create a folder based on a filter string that is run every time the folder is selected

Right clicking on any of these folders provides access to various operations. For Favorite folders options include Add or Remove contents of favorite to Search DB, and BPM Analyze options. Filter folders contain an option for accessing the filter dialog for changing the filter string. Virtual folders have a Rename option. All folders have options for moving the order of the folders up and down in the tree and for removing or deleting the folder.

## FAVORITE FOLDERS

You may want to define a collection of directories which are most frequently used – for example, “Hits of 2006” or “My Music.” The best solution is using the Favorite Folders. Think of Favorite Folders as Shortcuts to a folder in the operating system.

To setup a Favorite Folder, browse the Desktop navigation item from the File System/Folder Structure panel to the desired folder location. Click and highlight the desired folder, then click the yellow favorite folder icon .

The directory selected will be added to the end of the list, on the same level as the “Desktop” folder. To remove a favorite folder reference, select it and click the icon again.

The same actions can be taken by right-clicking on the desired folder and choosing “Set as favorite” from the menu. And, to remove a favorite folder simply right-click on the favorite and choose “Remove from favorite”.

## VIRTUAL FOLDERS

Virtual folders also aid in quick access to tracks. A virtual folder holds a collection of shortcuts to tracks.

Create a virtual folder by clicking on the red  VirtualFolder icon and giving the new folder a title.

Now browse the database or run various searches looking for tracks that are being grouped together. Drag and drop the tracks into the new VirtualFolder and next time you want to play these tracks refer to the virtual folder.

Please note that dragging tracks into a virtual folder will not physically move the files into that folder — it will only create a shortcut to where the files are located.

To remove a virtual folder, right-click on it and select “remove.”

## FILTER FOLDERS

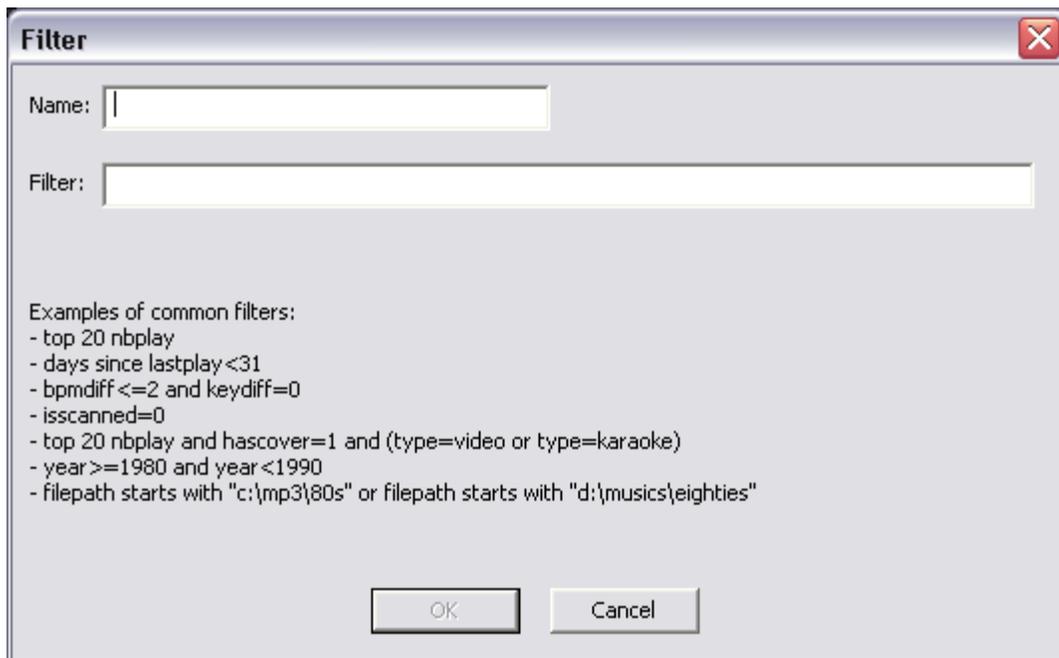
A highly dynamic and creative way to organize a collection of tracks is to apply conditions that automatically filter (search) the database for tracks that match the criteria outlined. VirtualDJ calls these types of folder FilterFolders.

### Create a Filter Folder

Click on the blue FilterFolder  icon and a Filter creation dialog is displayed.

Give the NEW filter folder a name. For example - **Top 100 Played**

Now enter the Filter to be used for creating the results desired. This is where it can be complicated or simple. This example is simple, use the keyword ‘top’ with the number ‘100’ and the element ‘nbplay’. ‘nbplay’ looks at the Play Count data field. As the filter statement is entered VirtualDJ evaluates that the statement is properly created. The OK button will remain ‘grayed’ out if the statement is not well-formed.



So the entire filter statement would look like **‘top 100 nbplay’**. What VirtualDJ will do each time this folder is selected with sort the entire database on the Play Count field in Descending order and then display the first 100 entries or the Top 100.

The filter dialog provides some great examples but to get it's real power need to now what are the appropriate elements, operators, and a few keywords that are used.

**Elements** - "title", "author", "artist", "album", "genre", "year", "bpm", "key", "bitrate", "songlen", "filesize", "filepath", "filename", "extension", "hascover", "isscanned", "alreadyplayed", "lastplay", "firstplay", "firstseen", "nbplay", "type", "days since firstseen", "days since firstplay", "days since lastplay", "LinkedVideo", "HasLinkedVideo", "BPMDiff", "KeyDiff", "ispresent", "inSearchDB"

**Operators** - "=", ">=", "<=", "!=", "<>", ">", "<", "is not", "is", "equals", "equal", "contains", "contain", "doesn't contain", "starts with", "start with", "ends with", "end with", "and", "or", "&&", "||", "&", "|"

**Keywords** - "top", "[inverted]"

### Filter Folder Examples

isscanned=0 or isscanned=1	Local Database
top 100 nbplay	top 100 list
top 100 firstseen	recently added
top 100 lastplay	recently played
bpm>120 and bpm<130	bpm range from 120 to 130
year>=1980 and year<1990	80s music
days since lastplay<7	songs played last week
days since lastplay<31	songs played last month
days since lastplay<365	songs played last year
lastplay=0	never played songs
isscanned=0	files not scanned
type=video	video group
type=audio	audio group
type=karaoke	karaoke group
hascover=1	has cover picture
hascover=0	doesn't have cover picture
top 20 nbplay and hascover=1 and (type=video or type=karaoke)	Top 20 most played that have a cover and are Video or Karaoke files
filepath start with "c:\mp3\80s" or filepath start with "d:\music\80s"	Show all 80s files stored on two separate drives in a folder titled 80s
extension is "mp3" and title doesn't contain "madona"	Any mp3 file that does not contain "madona" in the title
<b>UTILITY FILTERS</b>	
insearchdb=0	In my database but not in Search (Hidden from Search)
ispresent=0	Entries in my Database, but not on disk (Error: files)

## DECK CONTROLS



VirtualDJ's interface provides access to two virtual "decks". To load a track to a deck, drag and drop files into each of the decks spinning virtual platters.

The two decks are equipped with the following controls and displays:

- 1. Information about track currently loaded** – provides key information about the currently loaded track. Artist, Title, Elapse Time, Remaining Time, Gain level, Key of Track, Current Pitch position.
- 2. Hot Cues** - Use the three (3) buttons to set cue points. The first time that a left-click on one of these buttons, a cue point will be set. At any time left-clicking on the corresponding button and the track jumps back to that cue point. To set a new cue point for the hot cue, right-click the corresponding hot cue button. If wanting to delete a cue point, right-click on its icon in the waveform display, and select "delete". Lock image shows that the Smart Cue feature is activated. When smart\_cue is activated, songs are automatically re-synchronized when jumped to a new position or cue.
- 3. BPM** – Current BPM of the track based on Pitch changes. BPM button for manually 'tapping-out' the beats per minute of a song, you can left-click to the beat on the BPM button of the appropriate deck playing your track. Right click the button to access the 'Edit BPM and Automix' dialog

## DECK CONTROLS

- 4. Waveform display for currently** - This view shows the visual waveform of the entire track, allows for viewing the remaining duration of the audio, as well as what has already been played. When highlighted in blue or red (Using the default skins), that area of the waveform indicates what has been played and the current position of the audio. The remaining grey area of the waveform shows the length of the audio remaining. Inside the waveform itself, the lighter part indicates the presence of beats whereas the darker part indicates the presence of vocals

- 5. Effects**

**Effects Selection Drop-down arrow** - Select which effect to apply.

**Effects Selection Drop-down window** - When clicked this will apply the effect selected.

**Parameter 1 & 2 knobs** - These two knobs adjust parameters of the effect selected in the drop-down window, although not all effects require or make use of these knobs.

- 6. Loop Sampler** -

**Sample Selection Drop-down arrow** - Choose which sample to use. There are 12 slots which are available to record, load and play samples.

**Sample Selection window** - When clicked this will play the sample listed in the selection window.

**VOL** - Controls the level of gain applied to the loop sample.

**REC button** - When initiated, this function records the loop to the sample slot selected. If no loop is currently set on this deck, a 4 bar loop will be recorded by default.

**Sampler Loop controls** – used to half or double the samples length.

- 7. Loop Set /Control**

**Loop In/Out** - A loop is any area of a track that repeats seamlessly. Press “Loop In” at the point where the loop is to start. Press “Loop Out” when the desired point to mark the end point of the loop. The audio between the two points will begin to loop continuously. To release the loop and continue play of the track press “Loop Out” again and the audio will continue from the end point of the loop. To set a new loop, just press “Loop In” again while the loop is disengaged, and then press “Loop Out” to begin the new loop.

**Shift Knob** - Adjusts the loop length by half length or double length increments.

**Smart Lock button** - Allows the loop buttons to work together to create loops synchronized to BPM.

**Loop Length** - This indicates the length of the loop according to beat measures. Increase or decrease the length of the loop from 1/4 to 16 measures.

- 8. Virtual Turntable** – can be used with the mouse to scratch, back cue, and pause a playing track. The virtual table also has a position marker on it for visualizing a scratch position. Around the outer edge of the virtual table is a position ring that gives a reference to percentage of a tracks completion.

## DECK CONTROLS

### 9. Pitch slider / Pitch buttons

Controls the speed/pitch of the track when moving the slider. Moving it downward the speed of the music speeds up. By moving upward the speed slows down. The “Zero” button lets you smoothly bring the pitch back to 100%. Double click on it to bring it back instantly.

The two Pitch buttons are used to temporarily change the speed of the track playing. This is useful when you want to make a quick adjustment to a track if the beat of the track is not exactly matching up with the beat of the track playing on the other deck. The speed will be affected as long as you are pressing down “+” or “-”.

#### KeyLock

When enabled changing the pitch of the song does not change the tone of the track. Keylock can be enabled at any point along the pitch range to maintain the desired tone at that pitch while still being able to further adjust the pitch. When disabled tone changes based on the pitch used – slower pitch = slower deeper tone, faster pitch – faster higher (chipmunk) sounding tone.

### 10. Transport

**Cue** - Returns and pauses the music at the default Cue Point. To set a Cue Point, pause the song, seek to the desired position (for example by rotating the virtual turntable), and then click on “Cue”. Also, a right-click on the “Cue” button will set a Cue Point while the track is playing. Once on the Cue Point, pressing and holding down “Cue” allows for temporary play of this point. To delete a Cue Point, right-click on its icon on the Waveform display, and select “delete”.

**Stutter/Play** - Starts the music. Pressing “Stutter/Play” while the song is already playing, will restart the music from the last position you pressed “Play” from, creating a “stutter” effect.

**Pause** - Stops the audio where it is currently playing. Subsequent clicks while stopped cycles through the beginning of the song and all the Cue Points. Right-clicking while stopped automatically goes to the first detected beat in the song.

**Sync - When** clicking “Sync”, VirtualDJ will sync the tempo of the deck to the opposite deck’s tempo.

Press “Sync” while the song is paused; only the pitch will be adjusted.

Press “Sync” while the song is playing, the beats will be smoothly aligned too.

Right-click on “Sync”, the song will align on beat while the button is pressed.

## INTERNAL MIXER CONTROLS

VirtualDJ features an internal mixer section as part of the Mixer panel.

It can be used just like a regular DJ mixer.

The controls on the mixer include:

### 1. Panel selection buttons

### 2. Master and Headphone Cue volume knobs

### 3. Channel Gain

This knob sets the gain level for the corresponding channel (deck). (Right clicking will bring it to the value that matches the other deck level. Double clicking brings it back to 0)

### Key Adjust

Adjust the key of the playing track without adjusting its pitch/tempo.

### 4. EQ

These knobs allow you to adjust the low, mid, and high frequencies of the audio playing on the desired channel of the mixer. Each frequency range can also be cut by right-clicking on the respective knob.

### 5. Channel Faders

These vertical faders allow you to adjust the audio signal of the desired channel.

### 6. PFL and VU Meters

Sends the pre-fader level of the audio to the cue section for headphone monitoring. VU Meters show the current output of the respective deck.

### 7. Crossfader

The crossfader blends audio or video between the two decks. By sliding this fader from channel to channel you can isolate the left and right deck or blend them together.



## TOP TOOLBAR CONTROLS

### PC Version



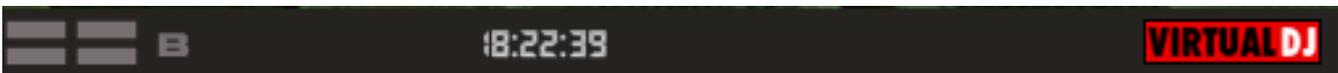
### Mac Version



### ZOOM LEFT



### ZOOM RIGHT

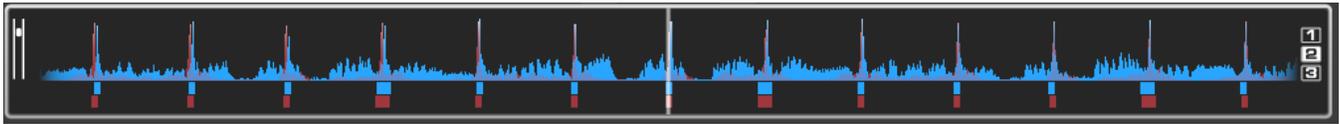


Items found on the toolbars –

1. **VirtualDJ Logo**
2. **CPU** – usage graph of the CPU
3. **4/4 CBG Beatkeeper**
4. **Clock** – Displays time, and when clicked with mouse can act as a counter.
5. **Config** – Provides access to the configuration settings dialog. See “Configuration Settings” section of this manual for more information.
6. **Window controls** – window controls provide the Minimize, Maximize, and Close application options. Standard windows type and location (right) buttons for PC version, standard Mac type and location (left) buttons for Mac version.

## RHYTHM WINDOW

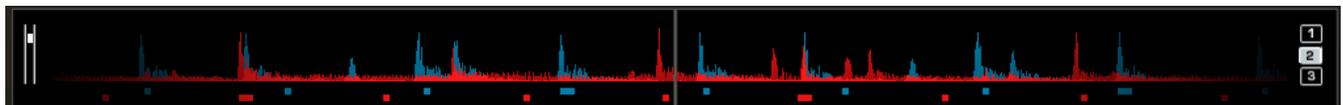
Above the players, a window posts curves corresponding to the two rates/rhythms of the music. These curves are represented in a waveform, allowing you to see your music. The peaks in the curve represent beats. In order to synchronize the music, these peaks should occur at the same time. The present is represented by the feature in the middle of the screen. All on the left was already played, while what is on the right represents the next seconds of the track.



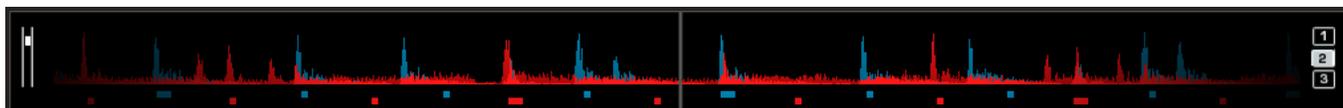
You can zoom in or zoom out the display using the slider on the left, or the three preset buttons (1, 2, 3) on the right side of the rhythm window.

Below the curves there are small squares, named CBG (Computed Beat Grid), which represent the position of measures. The large squares represent the beginning of a measure 4:4 time. The CBG is particularly useful, for example, when mixing a track at the time of an intro where the beat is not yet present.

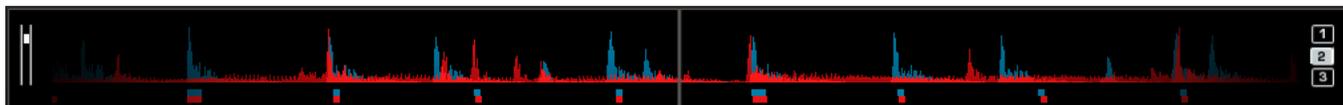
In the picture above, you can see that the beats are completely synchronized – it is easy to see that the peaks (beats) of the music are lined up. However, some music does not have the very obvious single beat peaks that most house and techno music has. This is when the CBG is very useful. If you look at the following graphics, it is not exactly clear where the beats should sync up by just observing the waveform visually. However, with the help of the CBG, it becomes much easier to synchronize the two tracks:



**NOT BEAT MATCHED – CBG NOT ALIGNED**



**BEAT MATCHED – CBG NOT ALIGNED**



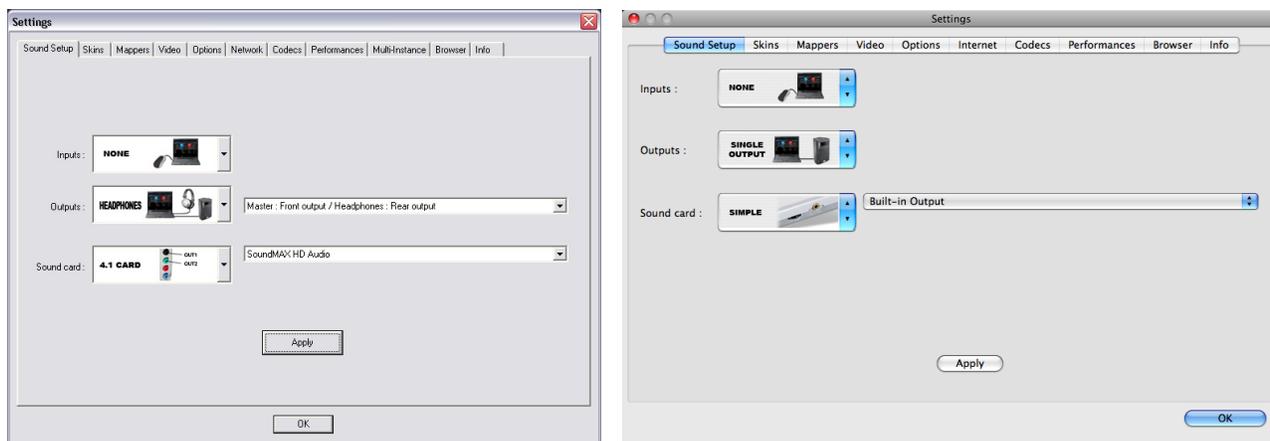
**BEAT MATCHED – CBG ALIGNED**

## CONFIGURATION SETTINGS

VirtualDJ is designed to be very simple and easy to use yet it is also fully customizable to match your preferred system performance.

To make changes to VirtualDJ's configuration, click on the (CONFIG ) button. This will bring you to the "Settings" dialog. The options in the "Settings" dialog can be viewed and edited by clicking on the corresponding tab on top of the "Settings" window and include:

### SOUND SETUP



**Inputs** – If using timecode vinyl or CDs to control VirtualDJ, select the appropriate input configuration from this pull-down list. Choices are "NONE", "Single Timecode" for Single control, and "Timecodes" for Dual Control. Setting up VirtualDJ for Timecode use is covered in detail in the "Timecode" section of this guide.

**Outputs** – Select the preferred output configuration from this pull-down list. Please note that, depending on your sound card, some output options may not be available for use. Choices are "Single Output", "Headphones", "External Mixer" (2 channel output), or "3-Lines Mixer" (3 channel output).

**Sound card(s)** – Select the sound card driver which you would like to use with the VirtualDJ software.

**Sound card** – Select the sound card in this pull-down list.

**ASIO Driver (not shown)** – If the Sound card selected type is ASIO, then this select the appropriately installed ASIO driver for use. *\*See the Quick Guide Timecode Setup for an example.*

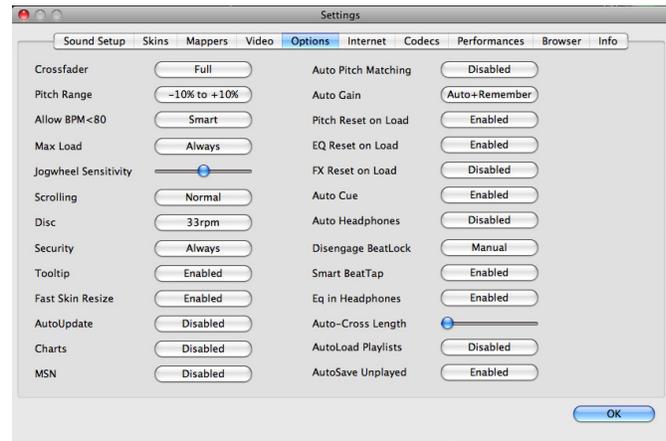
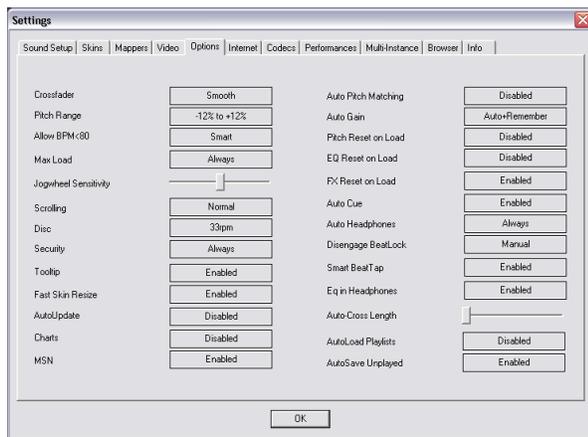
**Ultra-latency ASIO (not shown)** – There is two ASIO engines available for VirtualDJ to provide better latency support. Checked is the original ASIO engine that is optimized for very low latency (renamed ultra-latency) and is still considered the default engine. Some computers have problems with this optimization. Unchecked is the NEW 'safer' performance level ASIO engine which has less optimization for environments that have difficulty with the Ultra-Latency engine.

**Output Channels** – Select the routing of outputs on soundcard when the Outputs drop-down is set to one of the following choices - "Headphones", "External Mixer" (2 channel output), or "3-Lines Mixer" (3 channel output).

*\* See the Quick Start Guide for Basic, Headphone, and Timecode setup configurations \**

## OPTIONS

The Options settings control the multiple features and actions that accommodate the your style for using VirtualDJ.



**Crossfader** – This option allows you to select the cross fader curve. There are four different options including: Full, Cut, Scratch, and Smooth. (other curves can be set through plug-ins).

**Pitch Range** – Allows you to change the pitch range of the pitch slider. Reducing the range of pitch can increase the precision with which you are able to control the pitch (speed) of the records. Available ranges are 6,8,10,12,15,20,25,33,50, and 100% pitch control.

**Allow BPM <80** – Allows adjustment to the BPM Engine's value range. Disabled the range is set between 80 and 240. A setting of Smart sets the range for values between 60 and 240.

**Max Load** – Specifies the duration maximum beyond which the track will not be loaded in memory. Loading tracks which are too long in memory may put a strain on your system performance and cause VirtualDJ to not function properly. This function makes it possible to play long tracks without overloading the memory of your computer.

**Jogwheel Sensitivity** – adjust the amount of jogwheel sensitivity in processing a controller's jogwheel movement data (Does not affect the touch sensitivity of jog wheels with touch control)

**Scrolling** – Allows reversing the direction of the scrolling rhythm window.

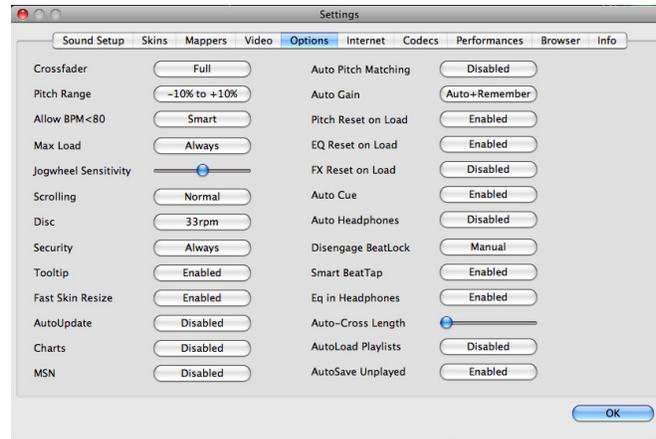
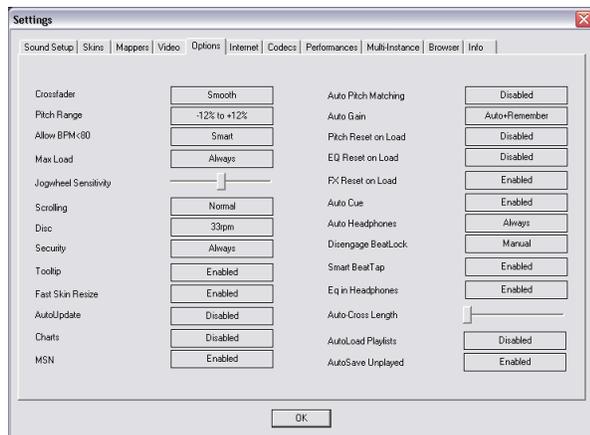
**Disc** – Allows selecting the spinning rate of the virtual turntables (default: 33 1/3 turns).

**Security** – This setting prevents you from loading a track on a deck while it is playing. If you select "Ask", VirtualDJ will prompt you to verify that you, indeed, want to load a track while the deck is playing. If you select "Always", VirtualDJ will not allow you to load a track to a deck that is already playing. If you select "None", the security feature will be disabled.

**Tool Tip** – Enable or disable the tool tip window. These tips appear when you hover the mouse cursor over the buttons of the software.

**Fast Skin Re-size** – Performance setting to help the refresh of the screen when the skin is maximized.

# OPTIONS



**AutoUpdate** – Automatically checks for new versions of VirtualDJ (internet connection required).

**Charts** - Authorizes VirtualDJ to send anonymous statistics about your sessions, compile charts of the most played tracks all over the world. These statistics are available on [www.virtualdj.com/charts.html](http://www.virtualdj.com/charts.html). No personal information will be collected.

**MSN** – When activated, this option will allow your MSN Messenger to show the music you are playing. To take advantage of this feature, you need to make sure that the “what I am listening” option is on in your MSN Messenger.

**Auto Pitch Matching** – When loading a song, automatically adjusts the pitch so that the BPM matches the BPM of the song currently playing.

**Auto Gain** – This is the auto gain adjustment setting for VirtualDJ. The values are :

- Disabled – Use the raw db level of the track as it was recorded, ripped, or normalized
- Auto – normalize the track to a 0db level for play
- Auto+Remember – normalize the track to a 0db level for play if loaded for first time, then remember the last db gain adjust for next loading of the track.
- Remember – loads the track the first time using the Disabled setting, then remember the last db gain adjust for next loading of the track

**Pitch Reset on Load** – If you enable this option, the pitch slider will be reset to 0% every time you load a track.

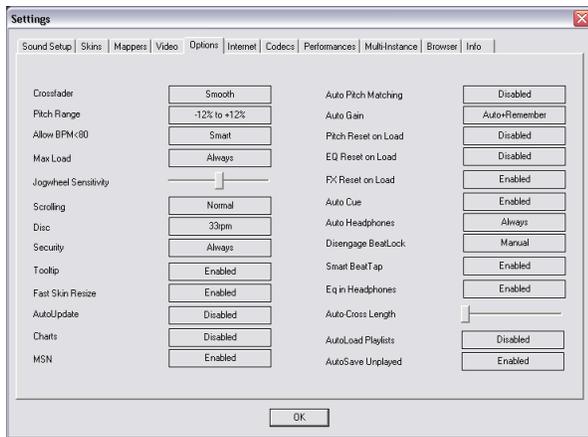
**EQ Reset on Load** – If enabled, this option will reset the equalizer on the deck when you load a new track to the deck.

**FX Reset on Load** – If enabled, this option will reset (turn off) the FX on the deck when you load a new track to the deck.

**Auto Cue** – If enabled, will advance track position to the first cue point if one exists (or with the first beat of the song if no cue exists and if “always” is selected) when loading a track.

**Auto Headphones** – This option allows for automatic switching of headphone cues. If you select “on load”, the headphone cue will switch the headphone cue when you load a new track. If you select “always” the headphone cue will switch when you load a new track or scratch a track that is already playing.

# OPTIONS



**Disengage Beatlock** – Once engaged, the Beatlock feature will keep the deck locked to the beat on the other deck, no matter if you are scratching or changing the pitch on the other deck. Disengage “on load” or “on switch” will automatically disengage the beatlock feature when the deck is loaded/switched.

**Smart BeatTap** – When enabled and using the beat\_tap action, it will automatically “snap” to the nearest plausible BPM and phase. This allows for very accurate BPM by just tapping 3 or 4 beats, the first tap will set the phase only, snapping to the nearest beat (you can tap only once to change the phase or the 4:4 strong beat, for example). One tap will not change the bpm. Subsequent taps will not change the phase, but change the bpm to the nearest plausible bpm value.

**EQ in Headphones** – a when using the Headphones soundcard configuration, any EQ changes made with VirtualDJ’s internal EQ mixer will be heard via the headphones channel.

**Auto-Cross Length** – Use this slider to specify the duration of the fade during automatic mixing. If this is set to 0 (left side), the tracks will play from start to finish.

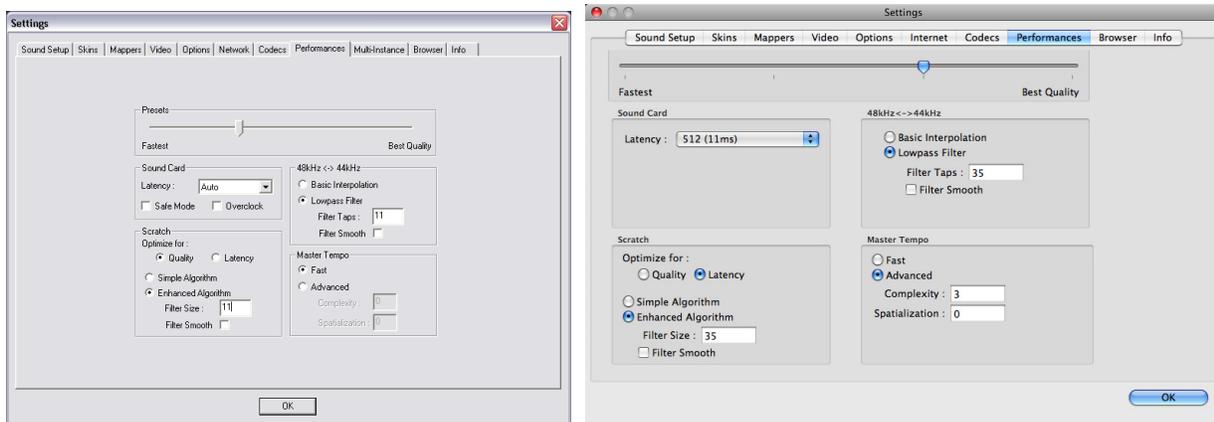
**AutoLoad Playlists** – See page 15 – “Playlist Setup”

**AutoSave Unplayed** – See page 19 – “AutoSave Unplayed”

## PERFORMANCE SETTINGS

VirtualDJ provides a simple, yet complex; interface for optimizing performance to the capabilities of the computer based on its specifications. Depending on the system's resources, some settings will work better than others. ***It is recommended that you take time to adjust these settings to find the optimum setting for your system.***

**NOTE:** When new components (controllers, soundcards, external drive, and software) are added to the system, performance options may require changing to achieve a new best possible performance based on the additions or changes to the system.



### Presets

Use this slider to select different preset configurations for the parameters below. Shift the “Presets” slider to the right for “Best Quality” of sound, or shift the slider to the left for “Fastest” performance.

**NOTE:** Not all systems are able to handle the HIGHEST setting for “Best Quality”. It is highly recommended to start at the “Fastest” preset and work towards the “Best Quality” setting testing each setting.

### Soundcard

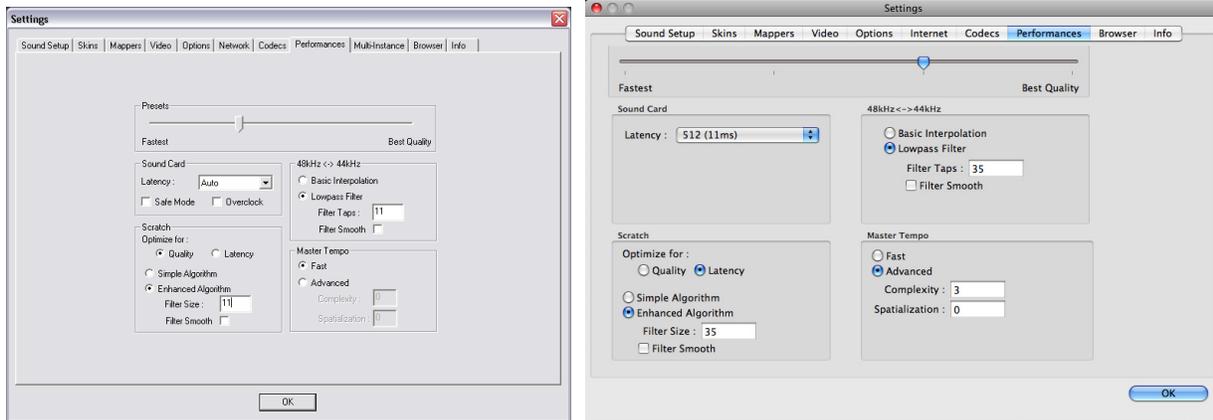
**Latency** – the amount of time it takes for a device to respond to a command. Latency makes a significant difference when using timecoded vinyl, CDs, MIDI or external control devices. The lower the latency setting the more instantly the software will respond, but the more likely you will hear glitches and pops if your computer is not fast enough to process the audio.

**NOTE:** in ASIO mode, some soundcard drivers don't work well with a latency forced by the software. In such case, use the “Auto” value (as pictured), and set the latency in the soundcard's control panel.

**Safe Mode** – When using a DirectX mode setting (like Simple, Dual, Mono or 4.1), VirtualDJ is less likely to produce glitches and pops if your CPU is momentarily busy. The performance trade off is scratching and pitch adjustments will use more CPU, especially with advanced algorithms. So, if using advanced Master Tempo this will probably need to be disabled, unless the computer is very fast.

**NOTE:** this option has no effect on ASIO or Low-Latency modes

## PERFORMANCE SETTINGS



**Overclock** – This setting can make your computer run faster (especially on laptops) and therefore be compatible with lower latencies.

**Scratch** – Allows for adjustment to how VirtualDJ reacts to scratch motions

### Optimize for:

**Quality** – VirtualDJ will more accurately represent how a scratch sounds when moving the virtual record back and forth

**Latency** – VirtualDJ reacts as quickly as possible but might result in a somewhat more metallic sound.

### Scratch algorithm:

**Simple Algorithm** – adds no computational overhead, and will use a simple interpolation algorithm to compute the scratch sound

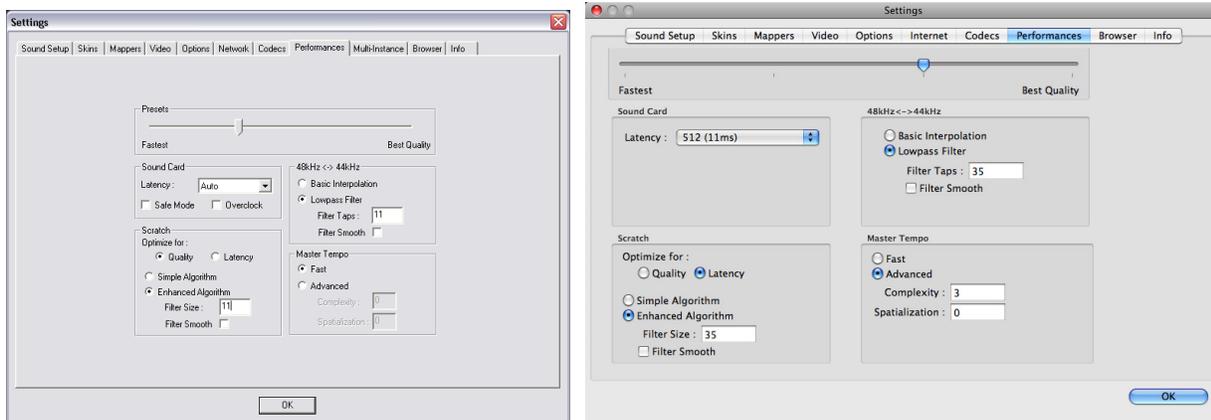
**Enhanced Algorithm** – uses an advanced algorithm that mimics the movement of the needle on the grooves, to obtain the best scratch sound possible. A filter size of 11 gives the best quality/CPU ratio, producing a very good quality while keeping a low computational overhead.

### 48kHz <-> 44kHz

Describes how VirtualDJ will interpolate between the 48kHz and 44.1kHz sample rates. Choosing “Basic Interpolation” will save some system resources and could improve performance. For better quality interpolation, choose “Lowpass Filter”. 11 taps is the best quality/CPU ratio.

**NOTE:** Most commercially available music is recorded at 44.1kHz (including MP3s) so it is a good idea to set your soundcard’s output to 44.1kHz. This will prevent your soundcard from having to interpolate to different sample rates and will improve performance. Unless you have worked with different sample rates before, the 44.1kHz setting should be default for your soundcard)

# PERFORMANCE SETTINGS



## Master Tempo

The master tempo is the algorithm controls how VirtualDJ changes the pitch of the song without changing its tone (“KeyLock feature”).

The default “Fast” algorithm takes only a small percentage of the CPU power, and produces good results at pitches in the range of -10% to +10%. For more extreme pitching, the fast algorithm can produce some choppiness.

If your system is strong enough, this can be corrected by using the Advanced algorithm option.

With the Advance option, the algorithm can be scaled to provide good time or good frequency localization, or both. High time localization means that VirtualDJ produces results similar to the time domain pitch-synchronized overlap-add (PSOLA) methods, high frequency localization produces results that are closer to what you get from an improved phase vocoder.

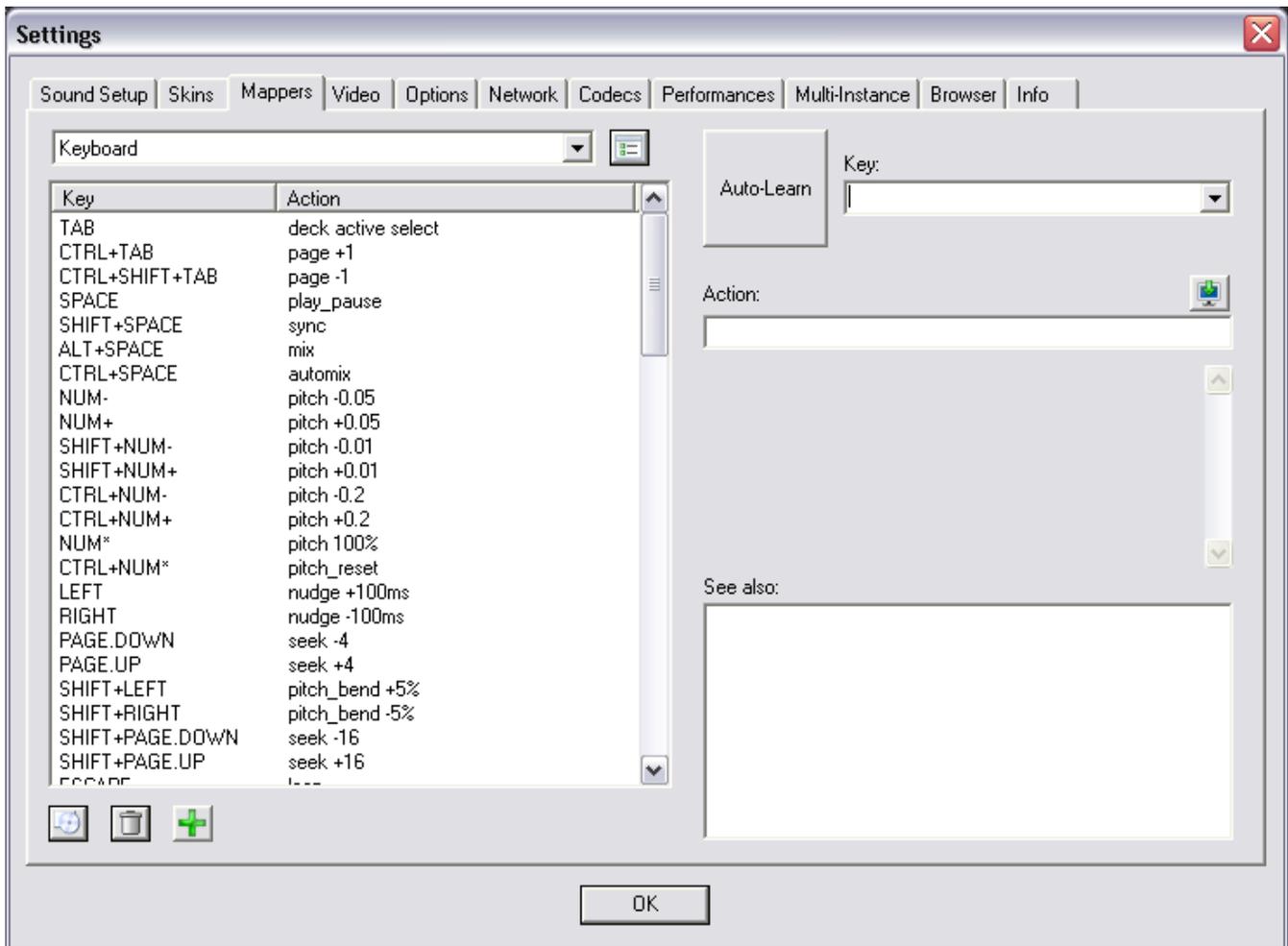
**Complexity** - This parameter is used to set the *processing quality* and determines the quality/speed tradeoff, ranging from very fast/real-time preview to full quality for very high end applications. A low quality setting provides excellent performance at a slightly lower algorithm quality, while higher values render the results in more time but at a significantly higher resolution. Acceptable values – 0 thru 3

**Spatialization** - determines the time-frequency localization trade-off, ranging from a very localized setting to very smooth. As a rule of thumb, a low value provides good time localization (good for voice and single instrument recordings) while a high value is good for entire mixes. High values take more time to process but are not considerably slower.

Acceptable values – 0 thru 5

## MAPPERS

VirtualDJ provides a very powerful mapping capability to support almost any external controller on the market today. Utilizing device definition and mapping files natively embedded in VirtualDJ and/or externally hosted in VirtualDJ's file structure and created by you, almost any controller can be used with VirtualDJ. Along with VirtualDJ's own action scripting (VDJScript), you have complete access in assigning the functionality of the controller to VirtualDJ's capabilities.



The mapper interface is very intuitive and provides easy access to add or change the functionality of any supported device.

### Mapper Tab Layout

**Connected Devices** – Top left drop-down shows the list of connected devices. Click on the down arrow of the drop-down and select the appropriate controller to access the controller's assigned actions.

**Keys and Assigned Actions** – below the devices drop-down is a list of the keys for the controller and the action to be executed when that key is used. \* *Key is a term used to describe not only buttons, but also faders and encoders (knobs).*

**Mapper Options** – to the right of the Connected Devices drop-down, click on the button for accessing the various mapper options.

- **Rescan for New Devices** – when selected VirtualDJ scans for any devices connected after VirtualDJ was opened.

Toggle On/Off the use of these various type of devices. Checked is On, Unchecked VirtualDJ will not use that type of device(s).

- **Use Keyboard Shortcuts**
- **Use HID devices**
- **Use MIDI devices**
- **Use Serial Devices**



- **Show only connected devices** – To see a list of all the mapped devices uncheck the 'Show only connected devices' then click on the drop-down box arrow to see the list.

### Reset Defaults, Delete an Assigned Key, or Add a New Key Entry

Below the list of assigned keys for the selected controller, are three buttons that provide access to these functions. The first button will reset the selected device to the original settings\* when first installed. The second 'Trash' button will remove a selected key entry from the list. The last 'Plus' button will add a new entry to the list for assigning a key and action.



\* Note – the reset to original settings only applies to the natively installed devices. Devices added using an independent definition and mapping file cannot be reset to their original settings using this method. \* *To learn more about adding your own device definition and mapping files please visit our wiki at <http://www.virtualdj.com/wiki> and view the Controller Definitions section.*

### Key and Action assignments

The Mapper interface is designed to bring as much flexibility to the user in selecting and assigning actions for customizing your externally connected devices.

For selecting the key to assign, you can manually select the defined key from a list then enter the action in the action box. Or, use the VirtualDJ Auto-Learn feature; so when you push or move the key on your device it recognizes it automatically.

For assigning the actions (VDJScript), you can manually type the entries using the action list and the action descriptions as a guide or the direct WYSIWYG interface for selecting the action from the skin.

All of these functions are performed from the right most area of the Mapper tab.

## MAPPERS

### Assign a Key and Action using Auto-Learn + WYSIWYG

The fastest and most likely the easiest is using the Auto-Learn in combination with the WYSIWYG skin selection options.

1. Select your controller from the devices drop-down
2. Click the Plus button at the bottom to Add a new entry (Auto-Learn is on by default)
3. Press or Move the appropriate item on the controller. You should see a key descriptor show in the Key drop-down list that represents the key you just touched/moved.
4. Click on the WYSIWYG button  and the mapper dialog will disappear exposing the skin for selecting the appropriate action to assign.
5. Click on the skin element whose action you now want to assign to the device's key. *(If an action is on a subpanel of the skin, then you must have that panel showing before you start this process.)*
6. The mapper dialog will appear and have the selected skin elements action in the Action box.



Now you can manually modify the action by adding additional parameters and actions. If you don't want to modify the selected action and want to assign more of your controller's keys to finish the mapping, just repeat steps 2 thru 6 above until you have completely mapped your controller.

### Assign a Key and Action manually

After clicking the Plus button to add a new entry, select the down arrow of the Key drop-down and select from the list of Key names that you want to assign. You can also still use the Auto-Learn to select your key from the controller as well.

After the key is identified, start typing the action you want performed in the Action box. Actions are comprised of a verb word with parameters that follow and influences how the action performs. Underneath the Action box, is a description box that explains what the action does and parameters that can be assigned.

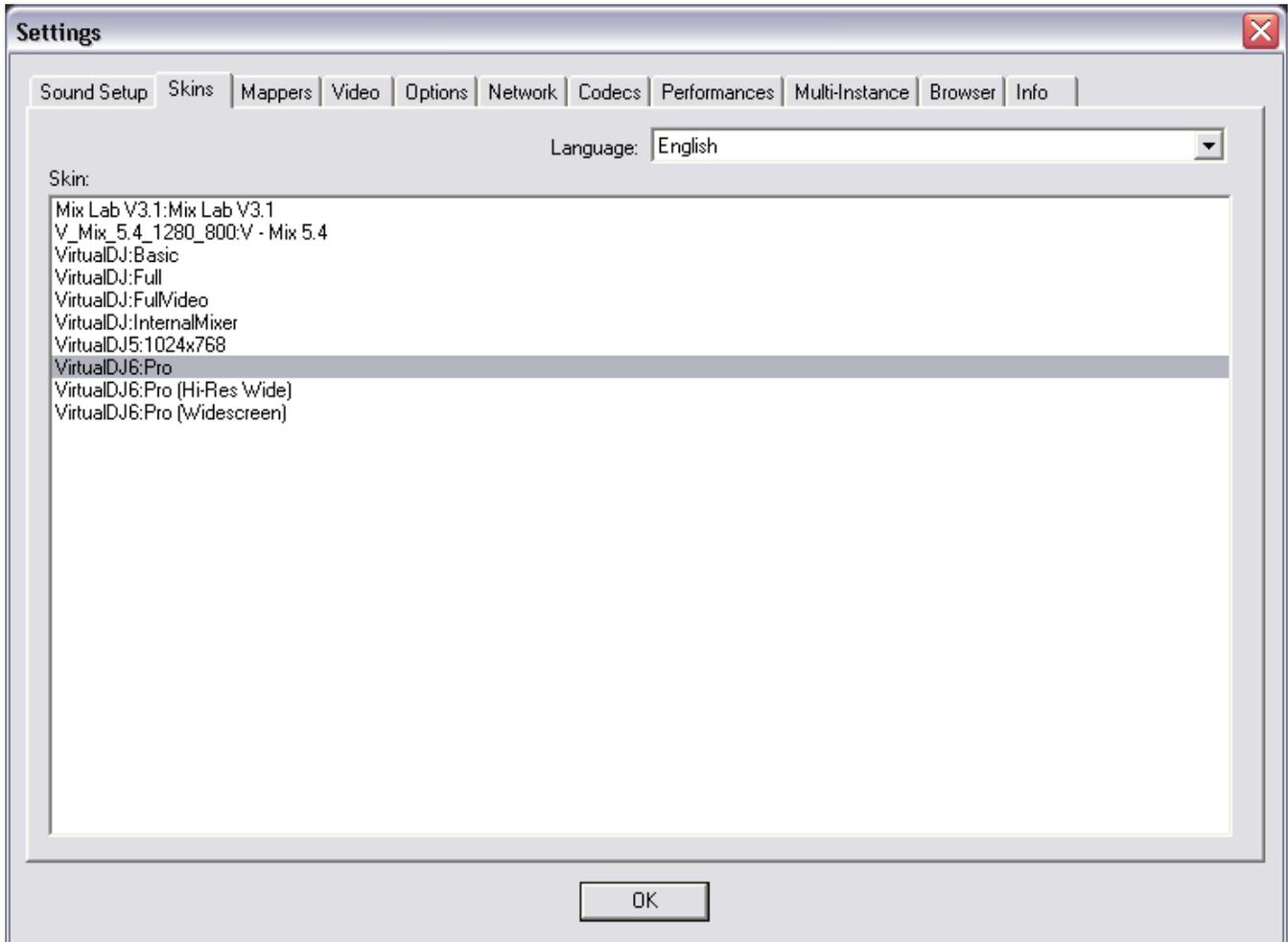
If you are unsure of the action names, in the 'See also' box is a list of the actions that can be applied to a key. This list will reduce in the number of entries as you type in the action box to show you the actions that most resemble what you are typing.

### Actions and Parameters (VDJScript)

There are a large number of actions that have various types of parameters that can be added to give various levels of control when the action is applied. The standard for using the action with the parameter is - <action verb> <action parameter> . e.g. pitch +0.05 – changes the pitch slider to a position +0.05 from zero position. \* *To learn more about the actions visit our wiki at <http://www.virtualdj.com/wiki> and review the VDJScript section.*

## SKINS

VirtualDJ allows you to choose between several different interface designs called “skins”.



By default, VirtualDJ provides you with several skin options. This manual references the VirtualDJ6:Pro skin within the text. But you can choose from the pre-installed skins or visit our website and download other user created skins.

**VirtualDJ6:Pro** – 1024x768 resolution of the skin referenced throughout this manual.

**VirtualDJ6:Pro (Hi-Res Wide)** – same as Pro skin (v6), but in 1280x1024 resolution

**VirtualDJ6:Pro (Wide)** – same as Pro skin (v6), but in 1280x800 resolution.

### Language

You can also change VirtualDJ’s Language support by selecting the appropriate Language from the drop-down.

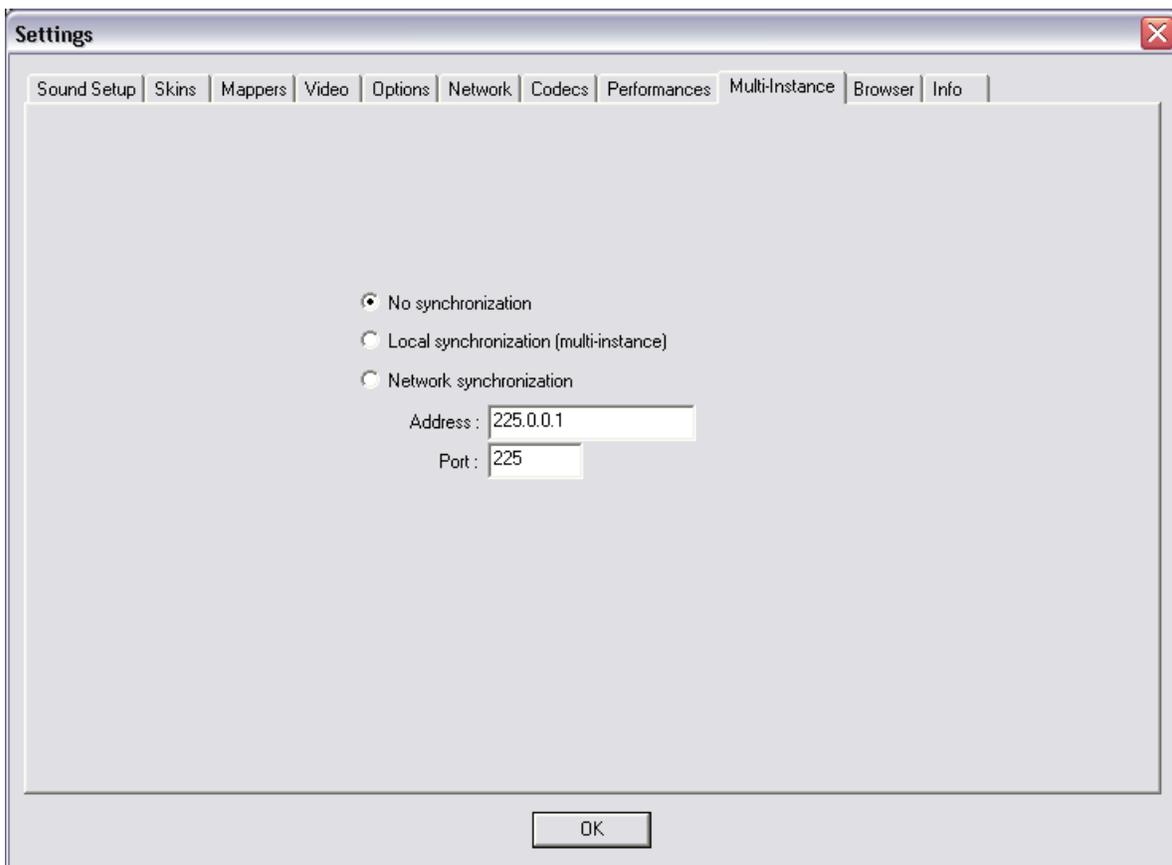
## MULTI-INSTANCE

VirtualDJ can be synchronized between multiple instances and/or synchronize multiple computers running VirtualDJ.

**No synchronization** – turns synchronization off.

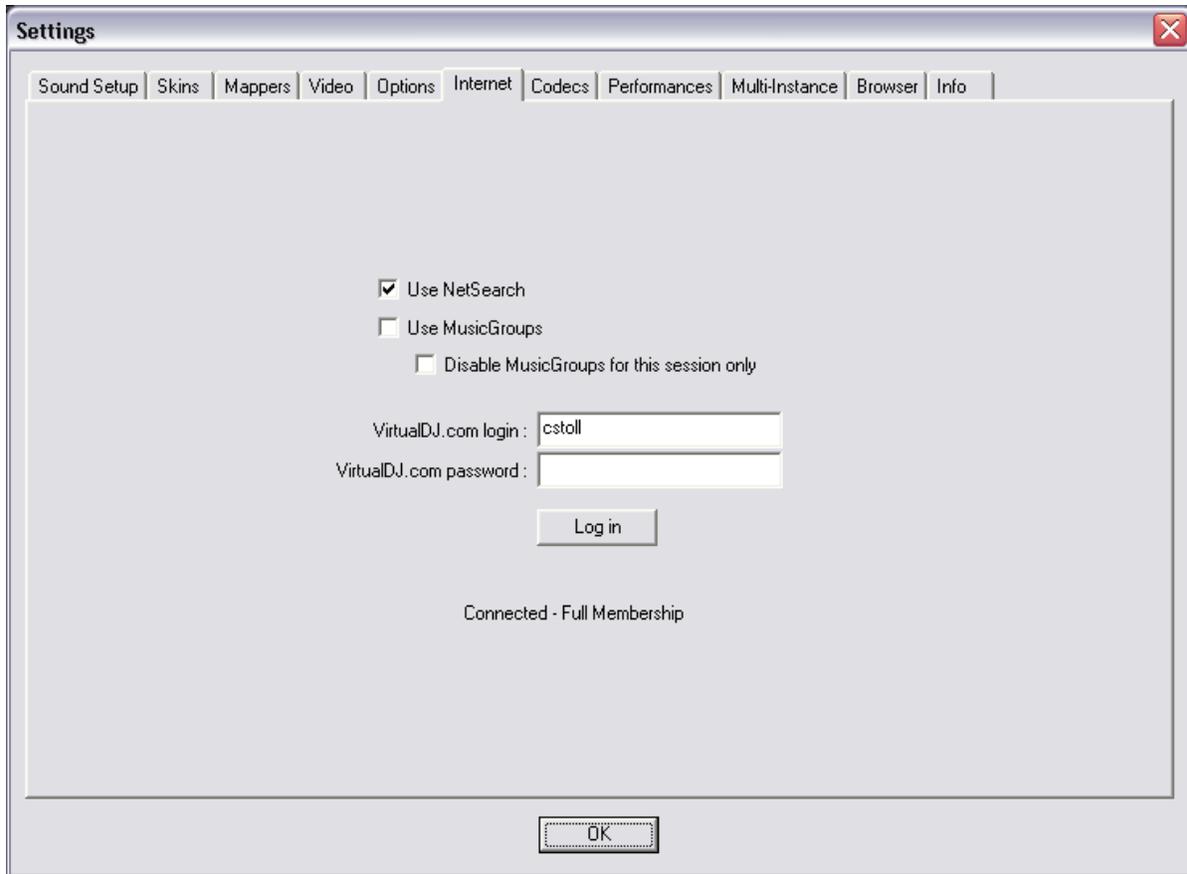
**Local synchronization** – allows multiple instances of the VirtualDJ software to run and synchronize together on the same computer.

**Network synchronization** – allows several computers running VirtualDJ to synchronize over a network.



## INTERNET

VirtualDJ can now take advantage of many features while connected to the Internet. These features (MusicGroups, NetSearch, etc...) require you to have an active Membership on this website, and to provide your login and password on this tab.



The MusicGroups feature is the ability for a DJ to show their playlists to other DJs, and help new DJs improve their music selection. You can create your own MusicGroup to display your own playlist, or one can ask to join more general MusicGroups in order to contribute to a larger group.

Atomix provides two kinds of Memberships: Premium Membership and Free Membership.

The Premium Membership brings the user access to all the online features, access to all the addons, premium technical support, developer access, and recognition from the VirtualDJ community.

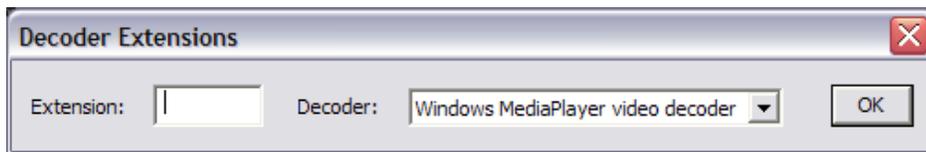
The Free Membership brings the user access to all the online features and access to all the addons.

***Visit the [VirtualDJ.com](http://VirtualDJ.com) home page for more information on these great features!***

## CODECS

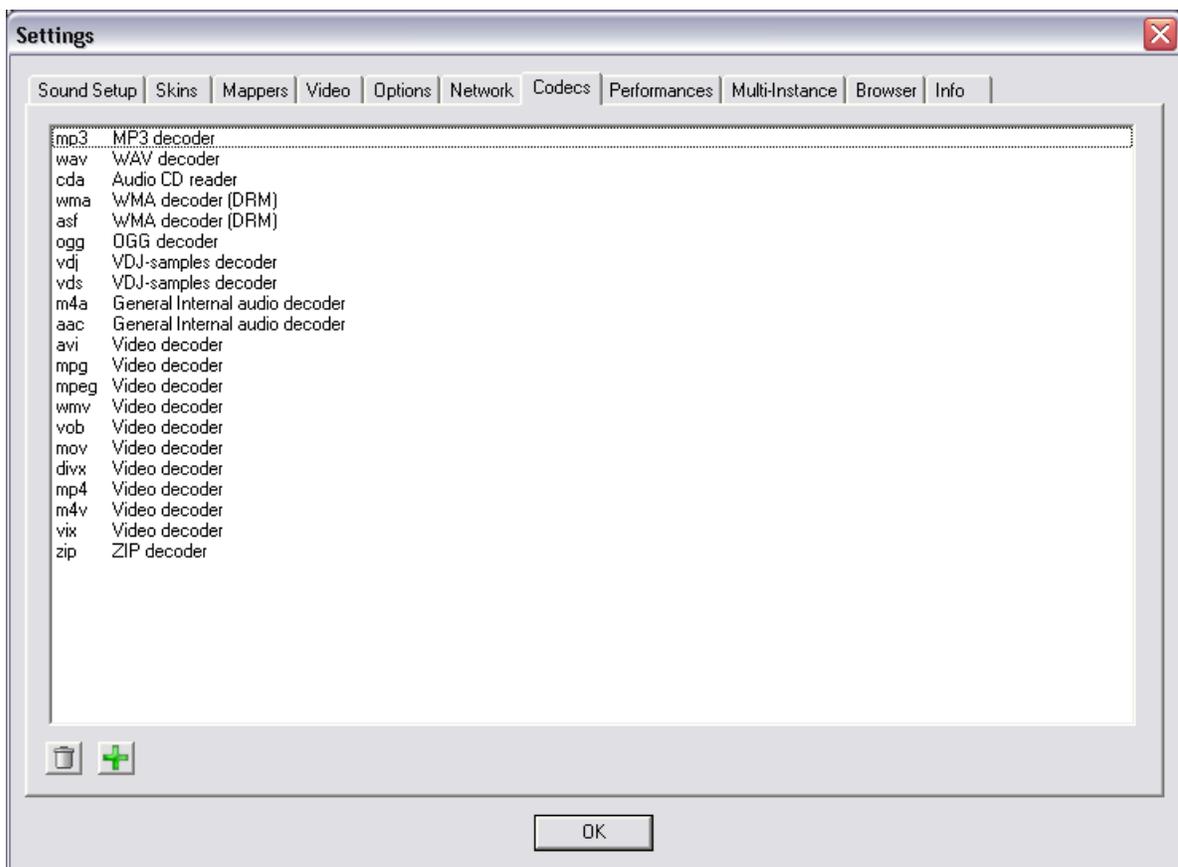
VirtualDJ is able to decode several formats natively with its audio and video decoders. The Codec tab identifies what file types (by extension) use what specific decoder for play in VirtualDJ.

At install, VirtualDJ includes the some of the common sound and video file extensions. If, VirtualDJ is not already associated with a specific extension for an audio or video codec then select the 'Add' button. Enter the extension and then select from the several available decoder engines that VirtualDJ is able to use as a decoding engine.

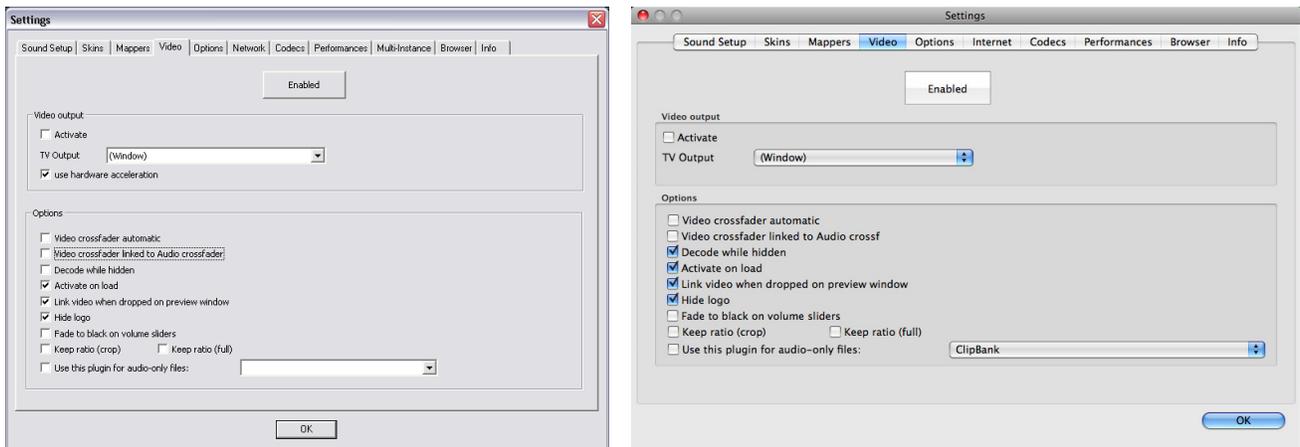


### Determining Appropriate Selection for a Unique codec

If the VirtualDJ MP3 or Video decoder is unable process a certain file then that unique encoded format (codec) can be assigned to one of the other supported decoders. Ensure the appropriate CODEC for that audio or video type is installed to the operating system and the file is playable in one of the supported decoder applications listed in the VirtualDJ Decoder drop-down. Then assigned that file extension type to that decoder.



# VIDEO



**ENABLE / DISABLE** – Provides the ability to have the application’s video engine enabled or disabled. By disabling the video engine ALL video features of the application are not usable and may increase performance for DJ’s using only the AUDIO features of the application.

**Activate** – Turn the video engine on or off.

**TV Output** – Select the monitor that will display the video master output.

**NOTE:** Only Monitors which are part of the windows desktop can be selected. If the monitor is not in the list, Open Windows’ display settings and activate the ‘Extend desktop on this monitor’ for the desired monitor.

**Use Hardware Acceleration** – Use DirectX to compute and display the video.

**NOTE:** unless you are using a video card that is fairly old, you shouldn’t turn this off.

**Video crossfader automatic** – a

**Video crossfader linked to Audio crossfader** –This option allows VirtualDJ to link to the audio crossfader for controlling video crossfades. If unlinked (unchecked) the video crossfade can be controlled using the video crossfader on the Video panel.

**Decode while hidden** –

Provided with a strong performance computer, VirtualDJ can decode video content even when it is hidden. This will prevent some jolts that may occur when video content is brought into the mix with the crossfader.

**Activate on load** –

If a video file is loaded on either deck the video engine is automatically activated. If wanting to play just the audio track of a video, uncheck this feature so the video engine will not be activated.

**Link video when dropped on Preview Window** – Checking this option will utilize the deck’s video preview window for linking a video to an audio track.

**Hide logo** – Checking this option will hide the application logo from the video mix window.

## VIDEO

**Fade to black on volume sliders** – Deck will FADE to BLACK when the volume fader is moved to 0. And will fade up in intensity as the fader is moved towards FULL level.

**Keep ratio (crop) / (full)** –

**Audio Only Plug-in** – Check this option and select the desired plug-in from the drop-down box. When playing audio-only files, this option will activate the plug-in to act as a visual. Example plug-in selection is the Clipbank.

## INFO

The VirtualDJ Info tab provides the version number along with copyright statement for the application. There are three useful buttons:

**Check for Updates:** makes an internet query to the VirtualDJ Download Center and checks to see if any updates are available. [Internet Connection required]

**Download Plug-ins:** Launches the browser associated with http request and directs the browser to the 'Add-ons' section of the website.

**Reset to Factory settings:** Reset VirtualDJ's settings back to the recommended defaults. All configuration tabs are affected by the change. **\*\* DO NOT use when playing LIVE. When clicked it forces a restart of the software to apply the changes.**



## SAMPLER



VirtualDJ features a powerful sampler, which provides the ability to record, load, save and play samples on the fly. The sampler can be accessed by clicking on the “Sampler” tab in the lower window and features 12 slots for samples which are available to use at any given point in time.

There are two types of samples that are supported – linear (one shot), and circular (looping) samples.

Linear samples are samples which are played beginning to end. Typically, linear samples do not have an intrinsic rhythm, and are often sound effects (applause, sirens, etc).

Circular samples are played in a looping fashion. Most often, these samples have an intrinsic rhythm, which can be repeated forever.

However, there is no rule about how to use samples – it is all up to you whether you will use a sample in a linear or circular fashion.

### Playing Samples

To play a sample you can simply click on the “Play” button associated with the sample cell.

If the sample is a linear (one shot) sample, the sample cell’s circular button will not be bold/highlighted. When the sample is played alongside the mix it will continue until the samples end is reached.

If the sample is circular (looping) sample, the sample cell’s circular button will be bold/highlighted and will display 2 additional buttons. The left and right adjustment buttons allow you to adjust the timing of the loop. Clicking the left button will cut the loop by 50% for each click. The right button will double the samples length (up to 2x the original length) each time clicked. When the sample is played alongside the mix, it will continue to loop until the play of the sample is stopped by pressing “Play” a second time.

The speed of the sample will adjust to synchronize with the active deck at the nearest possible aligned beat when played. This ensures that the rhythm of the sample will be beat-matched and aligned with the active deck, resulting in a smooth, natural sample playback.



## SAMPLER

Samples can be played from the skin's interface. The sampler is found just below the 'Effects' interface on the skin. Simply select the sample from the pull-down menu, and then click on the sample title to begin play. The frame around the title will light up during playback. If the sample is a loop, then click the sample title again to stop the loop. Linear samples will stop when the end is reached. The play volume of the sample can also be controlled using the Volume knob.

### Recording Samples

VirtualDJ can easily record samples which are then instantly ready to play.

To record a sample, make sure you have the deck you want to sample selected using the PFL button on the skin's mixer. Then press the REC button at the appropriate time to begin recording the sample. If the track playing is in a loop, then when you press REC the defined loop is captured as the sample and setup as a circular (looping) sample. Otherwise, you simply press REC a second time to stop the recording. This will set the loop up as a linear sample.

At anytime you can toggle a linear or circular sample to the other type by selecting the circular (looping) button.

**NOTE:** By default, recorded samples *are not* saved for use in subsequent sessions. To save the sample, use the "Sample Options" menu and select the "Save..." option.

### Sample Options

For each sample cell, there is a sample options menu available by clicking on the small button in the top right of the sample cell.

- **Load** – loads a sample from the hard drive.
- **Save** – saves the sample to the hard drive.
- **Loop** – make this sample a circular (looping) sample
- **Match Pitch** – match the pitch of the currently playing deck
- **Beatlock** – turns beatlocking on and off. This way a linear sample is able to be synchronized with the active deck, or prevent a looping sample from synchronizing to the active deck.
- **Sync on** – Beat, half beat, quarter beat
- **AutoPlay** – when checked, begins playing the sample as soon as the volume is adjusted.
- **Write Protected** – write-protect the sample cell so it cannot be recorded over.



## EFFECTS



VirtualDJ features a comprehensive set of audio and video effects and transitions which can be accessed by clicking the “Effects” tab. The effects list is displayed on the left side. Each of the effects can be activated for both decks. Multiple effects, both audio and video; can also be activated.

To use an effect, select the effect and activate it by clicking the ‘Activate’ button for the desired deck and the effect will be applied. The effect is active when the button is a different color than the background color. Deactivate the effect by clicking on the “Activate” button again.

The parameters for the effects are displayed on the right panel. Each effect may have different parameters that can be applied. Adjust the parameters by moving the faders of the associated parameters.

Effects can also be used from the effects panel on the deck controls. Different effects can be selected using the pop-up menu. Enable and disable effects by clicking on the displayed effect title. If using the effects panel on the deck control, multiple effects can not be activated for that deck – this panel only allows activation of one effect at a time.



## VIDEO

In addition to mixing traditional audio, VirtualDJ makes it possible to mix video content with the ease and familiarity of a DJ interface. Instead of audio files (.mp3, .wma, .m4a, etc.), video files (.avi, .mpg, .wmv, .vob, etc.) can be played. VirtualDJ's interface provides all the same features to mix, scratch, effect, and transition video content, just as with audio content.

Additionally, you can link video files to audio files to produce a video enhanced combination. Using the drag-n-drop preview windows, keyboard shortcut action, or a skin provided link object any type of supported video file can be linked to an audio track.

### Video Interface

By selecting the Video button on the center-top of the mixer zone, the internal mixer controls are replaced by several video options.

Three video viewing windows are displayed – Master Out, Deck A, and Deck B. With these windows you are able to see the video feeds of the 2 decks and what your resulting output will be to your video devices.

Below Deck A is the Transitions selection button. Clicking on the down arrow will provide a list of installed transitions to choose from. By clicking on the transition title will activate that transition and immediately crossfade to the opposing deck.

For automatic mixing from the currently playing deck to the next deck coming in when you press Play, activate the Auto option to the left of the video crossfader. Now your transitions will begin once you begin to play the track on the opposite deck. This option can also be set in the Video configuration tab.



Clicking on the preview windows for Deck A and B will activate the transition to move from one deck to the other.

You can manually crossfade the transition by moving the video fader from one deck to the other. And, if the Link to the right of the video crossfader or "Link the Video crossfader" in the Video configuration tab is checked, the skin's audio crossfader will crossfade the video when it is move from one deck to the other.

Just like the audio effects the Transition Effects can be selected and activated from the effects panel area. Just select the "Video Transitions" section, then select the desired transition and activate it.

### Video Effects

Similarly to audio effects, video effects are used to transform the video on either deck. Use the "Video Effects" in the "Effects" panel and activate the desired effect on the specific deck. Or, select and activate the video effect from the control underneath the Deck B preview video window. Select the desired effect using the down arrow on the control and then click on the displayed name to activate it.

### Video Files in the Browser

Video files are distinguished in the Browser with a small, blue “V” on their icon . And, audio files with linked videos are distinguished in the Browser with a small, blue “L” on their icon . When playing a video/linked audio file, a video window will open in VirtualDJ.

If the installed video card has a TV output or a second output screen, the secondary output can be specified as the output for full-screen display, instead of the windowed output. The desired output is specified by using settings in the Configuration dialog on the Video tab.

If full-screen output does not appear, check that the output is recognized in Windows display properties, and that Windows is in a dual monitor mode (not clone). For more information, see the video card manufacture’s instruction manual.

VirtualDJ provides an installed Rip DVD utility for ripping the video files from a DVD to the computer’s hard disk in a high-quality .VOB format.



### Optimization

In general, video mixing is much heavier in computer resources than audio mixing so certain optimization may help performance, especially when dealing with full frame rate video (such as DVD in high definition).

There are several parameters which determine the speed with which VirtualDJ decompresses and displays video content – the size of memory present on your video card, the speed of the graphics processor (GPU), the speed of the main central processor (CPU), and the access speed of the hard disk.

Another parameter which largely influences performance is the type of file. An MPEG1 format file is much faster to decompress than a VOB format file. In a similar way, a file with a 320x240 resolution is much faster to decompress than a file with a 720x576 resolution.

By default, VirtualDJ decompresses only the content which is visible in the video mix window. This means that if there are two clips which are playing but only one is visible, VirtualDJ will only decompress the video which is visible. If both video files are shown in the mix window, then VirtualDJ will decompress both. This makes the software perform quicker and also allows it to perform better on slower machines. However, this may result in small jolts at the time of transitions. If the computer configuration is sufficiently powerful, we recommend checking the “Decode while hidden” box in the “Video” settings in the “Config” menu to obtain more fluid transitions.

And finally, we recommend the use of an output resolution no greater than the resolution of the video files. If using higher resolutions, low-resolution content will not look any better but will be using more computer resources. A resolution of 800x600 should be sufficient if using high-quality DVD video.

## KARAOKE

In addition to being able to play music and other video content, VirtualDJ allows provides support to play and mix karaoke files.

VirtualDJ is compatible with MP3+G, WAV+G, WMA+G, OGG+G, and .ZIP files.

The tracks will appear with a “K” in its icon . When loaded on the deck, VirtualDJ will load the audio track on the deck and display the CDG file in the video mixer.

VirtualDJ supports the binding of the CDG files with its MP3 counter parts as one single .ZIP file.

### Karaoke Rotation Plug-in – PC version ONLY

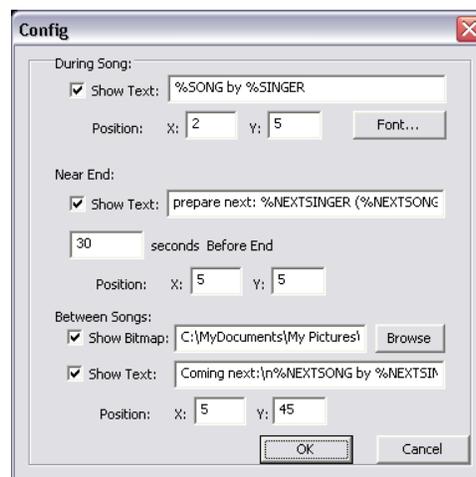
VirtualDJ can assist in managing a Karaoke event and post messages to the video output with it's Karaoke Rotation Plug-in found in the Video Effects section. The plug-in uses Deck 1 as the Karaoke Deck. Deck 2 can be used for between song fillers, if necessary.



To activate the plug-in, highlight and select the ACTIVATE button. This will launch the rotation list and send the designated Bitmap image to the main video output. The LIST button will display the rotation list if it is closed. The CONFIG button displays the configuration dialog. And, the NEXT button is used for starting the next song/singer selection.

### Plug-in Configuration

- During Song: Show Text – designate the text to be displayed during the song by placing a check in the box and desired text in the text box. Set the screen positioning of the text by supplying an X and Y coordinate. Set the font to use by selecting the Font button.
- Near End: Show Text – same as the During Song: Show Text. Set a timeframe that VirtualDJ will use to begin showing the designated text before the current song ends. Again, an X and Y coordinate for displaying the text on the screen can be entered.





## BROADCASTING AND RECORDING

VirtualDJ provides an additional ability to record or broadcast the output. To access the recording and broadcasting features click on the “Record” tab. The following interface is displayed.



The following methods are available:

- Record Audio
- Burn CD
- Broadcast
- Record Movie

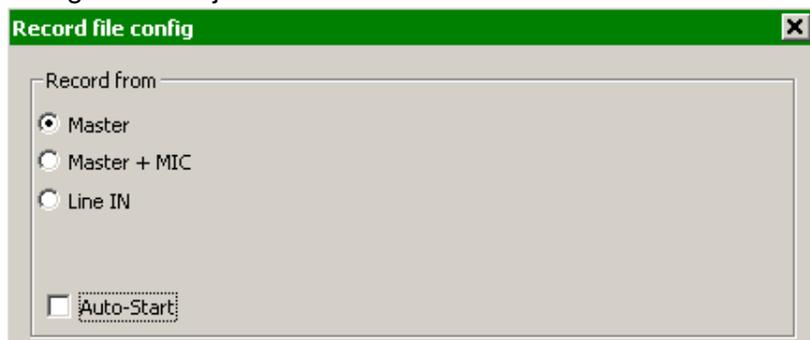
To access the recording settings click on the “Config” button at the top center of the interface.

### Record From

In the “Config” dialog, three different sources for recording are available. These options are available for all three methods.

- **Master** – record the mix from the session
- **Master + MIC** – record the mix and another audio source (such as a microphone).
- **Line IN** – record only from the Line input of the soundcard or I/O interface. For example, if using an external mixer to mix the output of the mixer can be connected to the Line input of the soundcard or I/O device. The recording will feature all of the manipulations and cross fading performed on the external mixer.

There are additional configuration adjustments associated with each of the methods.



## Record Audio

“Record Audio” provides recording a mix session to a .WAV or .MP3 file direct to the system’s hard drive. When the recording is completed, it can then be listened to in VirtualDJ, edited with an audio editing application, or written to a CD using a CD burning software.

To setup the “Record Audio”, click on “Config” to access the configuration settings for recording a file.

### Record From –

- chooses the recording source
- **Auto-Start** – checking this box will automatically begin the recording when the first track begins playing. If not checked then manual activation of the recording will need to be activated using the “Start Recording” button

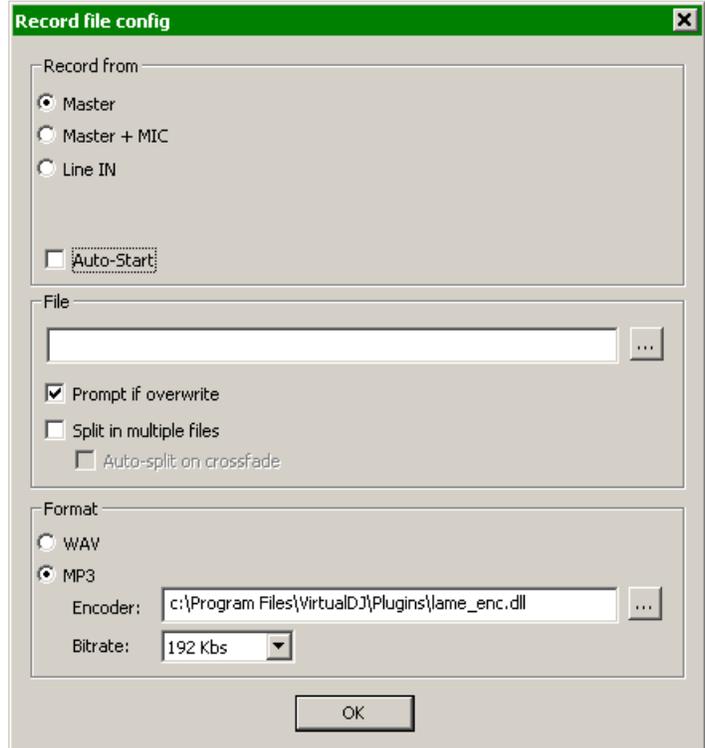
### File –

- **Path** – provide the path and name of the file where the recording is going to be saved.
- **Prompt if overwrite** – checked will prompt to overwrite when trying to record to a file that already exists.
- **Split in multiple files** – checked will split the session as separate tracks, instead of one large audio file. When splitting to separate tracks, a “Cut” button appears next to the “Start Recording” button to demarcate tracks. The “Auto-split on crossfade” option will automatically demarcate tracks when the crossfader in the VirtualDJ interface begins to move to the deck being mixed in.

**Format** – select the audio file format to be used when recording.

- **WAV** – will record a .WAV audio file
- **MP3** – will record an .MP3 audio file
- **Encoder** – this is the path to the MP3 encoder for use in recording the MP3. If the encoder to use is in a different folder than the VirtualDJ folder, use the browse button
  - ( ,, ) to navigate and select the encoder’s location
- **Bitrate** – select the bitrate to use in recording the MP3. A bitrate of 192Kbps is recommended for CD-quality recording.

Once the choices are set, click “OK” and then “Start Recording” when ready. Press “Stop Recording” when finished with the session.



## Burn CD

VirtualDJ can record the session in a CD image format for quick burning of a session to CD.

Select “Burn CD” for VirtualDJ to record the session as a .BIN/.CUE file type which contains all the necessary information for burning software that supports image types of BIN and CUE.

Click on “Config” to access the configuration settings for CD recording.

### Record From –

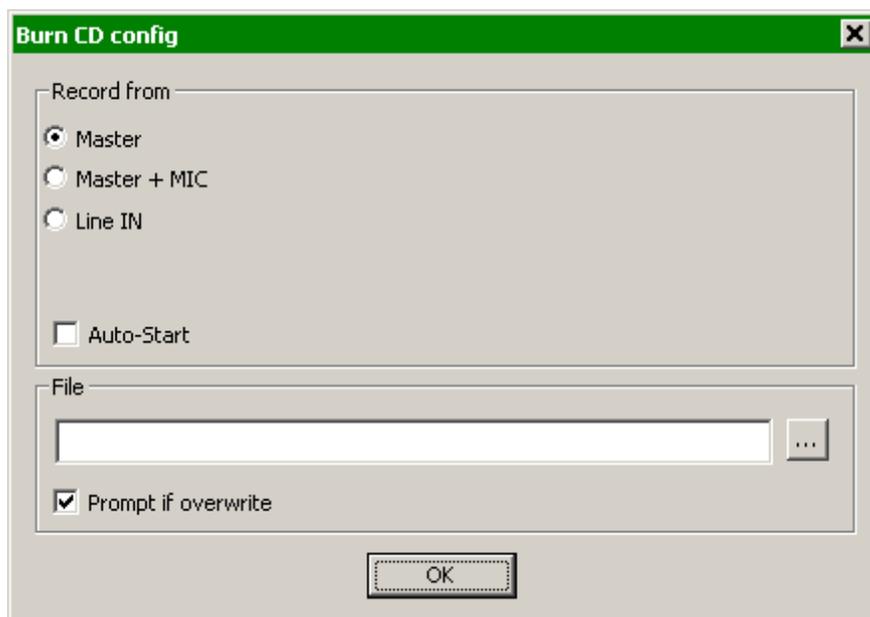
- chooses the recording source
- **Auto-Start** – checking this box will automatically begin the recording when the first track begins playing. If not checked then manual activation of the recording will need to be activated using the “Start Recording” button

### File –

- **Path** – provide the path and name of the file where the recording is going to be saved.
- **Prompt if overwrite** – checked will prompt to overwrite when trying to record to a file that already exists.

Once the choices are set, click “OK” and then “Start Recording” when ready. Press “Stop Recording” when finished with the session. And, to demarcate tracks use the “Cut” button found next to the “Start Recording” button.

When finished recording the .BIN/.CUE file specified in the File Path field can be burned with a .BIN/.CUE supported CD-burning application. For more information about burning .BIN/.CUE files, consult the documentation of provided by the CD burning software.



## Broadcasting to the Internet (“Broadcast”)

VirtualDJ provides a method for broadcasting the session in realtime on the Internet as a “webcast.”. This way people around the world can listen to the mix session.

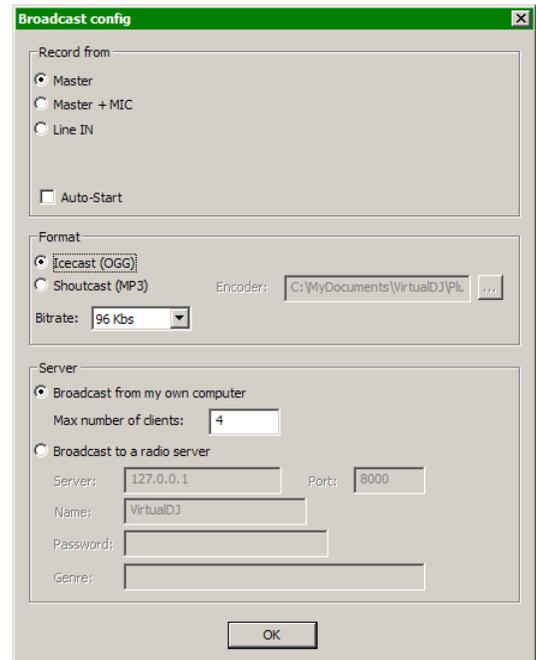
Click on “Config” to access the configuration settings for recording a file.

### Record From –

- chooses the recording source
- **Auto-Start** – checking this box will automatically begin the recording when the first track begins playing. If not checked then manual activation of the recording will need to be activated using the “Start Recording” button

### Format –

- Icecast – OGG format streaming
- Shoutcast – MP3 format streaming Shoutcast will also need to know which MP3 Encoder will be used.
- Encoder – Use the browse button ( ... ) to navigate the computer folder structure and select the encoder file to use.
- Bitrate - Select the desired bitrate for the encoding. **NOTE:** Higher bitrates will consume a large bandwidth in the internet connection to stream and listen to MP3 audio.



### Server –

There are two ways to broadcast the mix session. Broadcast using a dedicated radio server, or broadcast direct the computer.

**Broadcast from my own computer** – this option turns the computer into a webcast station. This way once the “Start Recording” but is click the webcast will begin.

**Max number of clients** – this is the maximum listeners that the webcast may have.

**NOTE:** Please remember that the bandwidth of the Internet connection needs to be able to accommodate the number of listeners. Decreasing the quality of the audio signal (the bitrate) makes it possible to accommodate a greater number of listeners.

When ready to broadcast click on “Start Recording”. VirtualDJ will indicate the address of the webcast (for example <http://123.45.67.89/Virtual.ogg>). The address then can be sent to the intended listeners so they can connect and listen to the webcast using their favorite Internet audio players.

### Caution:

If using a floating Internet connection, the address of the webcast could change from session to session. In this case, the broadcasting address should be communicated each time to the listeners.

**Caution:**

To listen to the mix, the software used by the listeners must be able to communicate with the broadcasting computer via the webcast server. This means that the broadcasting computer may need additional configurations and/or any software firewalls protecting the broadcasting Internet connection be set to authorize incoming and outgoing connections to and from the broadcasting computer.

**NOTE:**

If using a router, port forwarding maybe required for connection to the webcast server on the broadcasting computer.

**Broadcast to a radio server** – this option allows setup of broadcasting the mix session to an existing web radio server.

Enter the address of the web radio server, login, and password, and VirtualDJ will automatically broadcast the mix to the server using the format in set in the Format section.

**Broadcast config**

Record from

- Master
- Master + MIC
- Line IN

Auto-Start

Format

- Icecast (OGG)
- Shoutcast (MP3)

Encoder: C:\MyDocuments\VirtualDJ\Plu ...

Bitrate: 96 Kbs

Server

- Broadcast from my own computer
- Broadcast to a radio server

Max number of clients: 4

Server: 127.0.0.1 Port: 8000

Name: VirtualDJ

Password:

Genre:

OK

## RECORD MOVIE

### Record Movie

VirtualDJ can record the session using the Microsoft MPEG4 codec installed on the computer as part of the Windows Media Player install. The Microsoft MPEG4 codec is used by default because it's the best codec to be used in live scenarios. For example, with the Divx codec a video can not record if the size is greater than 320x320 whereas Microsoft MPEG4 codec can record at least at 1024x768 and more.

Click on "Config" to access the configuration settings for video recording.

#### Record From –

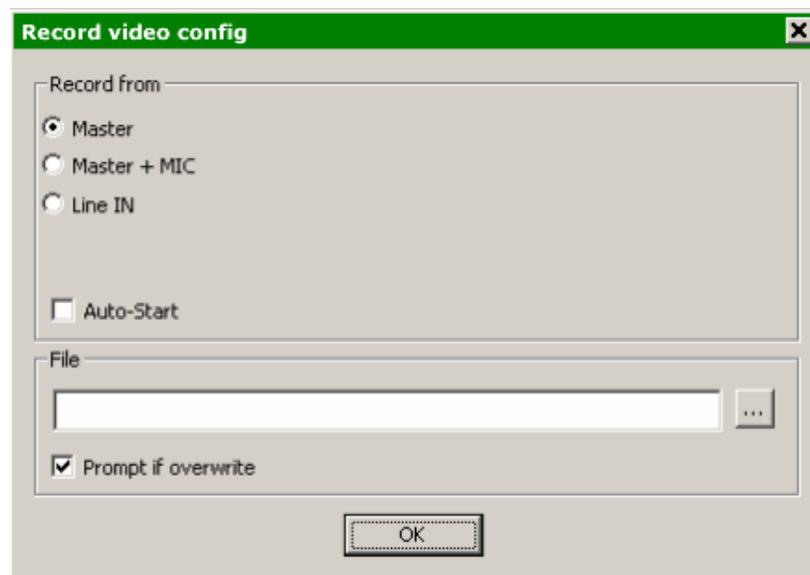
- selects the recording source for the audio layer, video layer is always the Master Output of VirtualDJ's video engine.
- **Auto-Start** – checking this box will automatically begin the recording when the first track begins playing. If not checked then manual activation of the recording will need to be activated using the "Start Recording" button

#### File –

- **Path** – provide the path and name of the file where the recording is going to be saved.
- **Prompt if overwrite** – checked will prompt to overwrite when trying to record to a file that already exists.

Once the choices are set, click "OK" and then "Start Recording" when ready. Press "Stop Recording" when finished with the session.

When finished recording the file specified in the File Path field can now be burned to a CD/DVD or immediately used as a track in VirtualDJ..



## TIMECODE SETUP

In addition to using external controllers, VirtualDJ also provides the ability to control each deck via a time sequenced control vinyl. There are several makes of the digital timecode vinyls on the market. VirtualDJ support most Digital Vinyl System (DVS) signals.

To use a DVS with VirtualDJ, start by referencing the VirtualDJ Quick Guide for setup of your soundcard within VirtualDJ. By default once you select the appropriate DVS signal that you are using there should be minimal manipulation of VirtualDJ's settings.

If necessary the following will help you adjust your timecode configuration. After clicking on the Timecode Setting button in the Config on the Sound Setup tab; you will see the following dialog.

Start playing your DVS Vinyl or CD to see the signal level information in the configuration display.

For a 100% quality signal, you may need to adjust the following options:

**Vinyl** – Select what kind of timecode control record you will be using. For best performance, we recommend Serato vinyl or VirtualDJ v5 vinyl.

**Mode** - Select what timecode mode you want to use. In doubt, use "Smart Relative", which is the default and should be used unless you have specific needs.

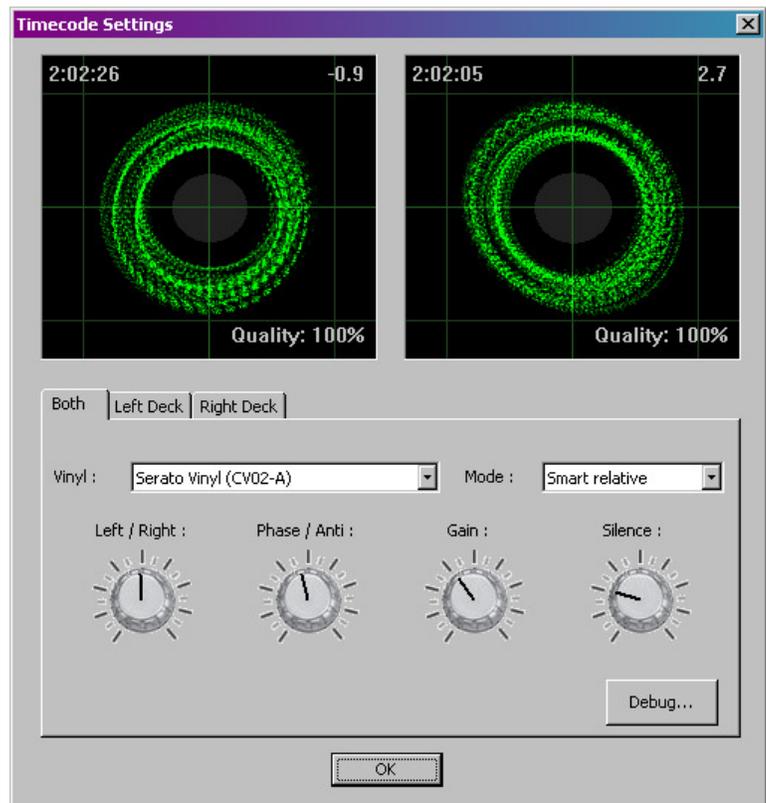
**Left/Right** – Use this knob if the graphic shows an "egg" instead of a concentric circle

**Phase/Anti** – Use this knob if the graphic shows a tilted egg instead of a concentric circle

**Gain** – Use this knob if the graphic is too small or too big for the window. **Does not change the level of the signal being received by VirtualDJ from the DVS control vinyl or CD.**

**Silence** – Use this knob to adjust the gray zone on the graphic, so that it doesn't touch the green circle while in normal operation, but completely covers the green lines when you stop the turntable.

If necessary you can select the individual deck tabs to fine tune each deck with the same options.



## DEBUG

The Debug button provides access to additional fine tuning options for gaining a better quality signal of your DVS and its control of the VirtualDJ interface. The following visuals are available and features that can be adjusted to obtain better DVS performance.

**Signal Grid** – displays the DVS signal being read by VirtualDJ. By adjusting the various settings you should see concentric circles displayed in this area.

**Data Stream** – when properly configured the display should show four dotted lines of data stream, two above the center green line and two below; and never cross the center line.

**Stereo Waves** – shows a received signal from the DVS in a sine wave with the silence zone in the center. If either channel is not properly sending a signal, you may see a flat line or sine wave small than the other channel.

**Invert Signal Stereo** – check if the input cables are crossed and the track moves in reverse when the DVS signal is played.

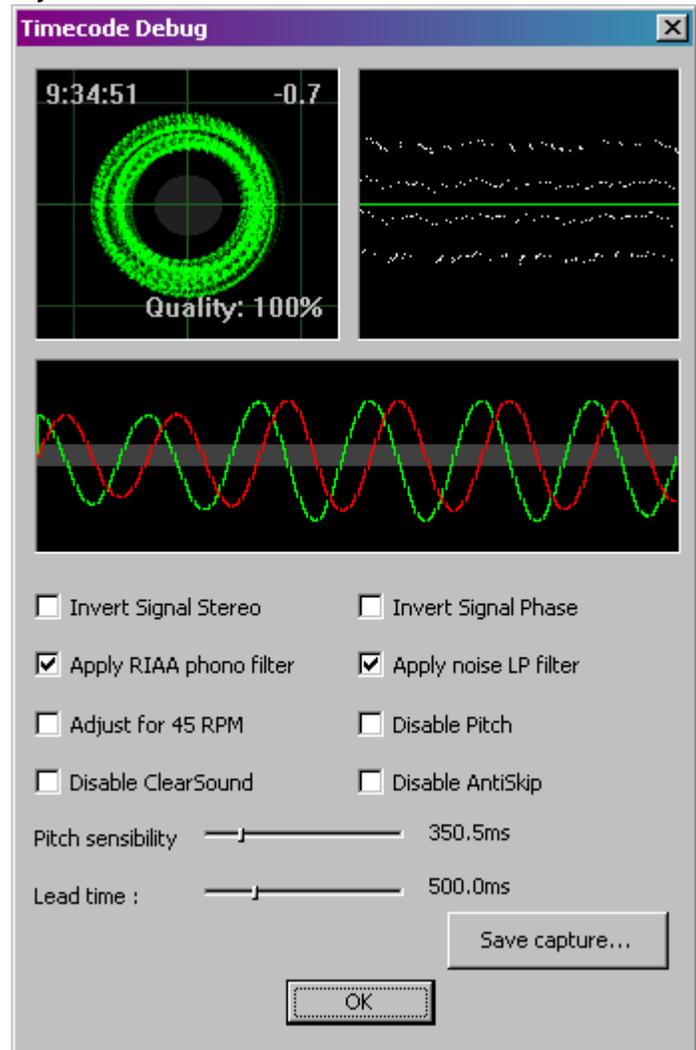
**Invert Signal Phase** – check if the cables are correctly connected, but the phasing of the signal is reversed.

**Apply RIAA phono filter** – if your soundcard does not provide a RIAA pre-amp capability, use VirtualDJ's software RIAA pre-amp to attain a stronger signal when using a vinyl record for the DVS. If using a CD DVS signal this should not be checked.

**Apply noise LP filter** – use VirtualDJ's Low Pass filter for removing the low end signals from disrupting the DVS signals quality.

**Adjust for 45 RPM** – when check VirtualDJ will compensate reading of the control signal if a speed of 45 RPM is used.

**Disable Pitch** – If you disable SmartPitch, the pitch slider inside VirtualDJ will not move to reflect the pitch on your turntable, and the BPM of your song will not reflect the pitch change on the skin's interface.



## TIMECODE SETUP – DEBUG

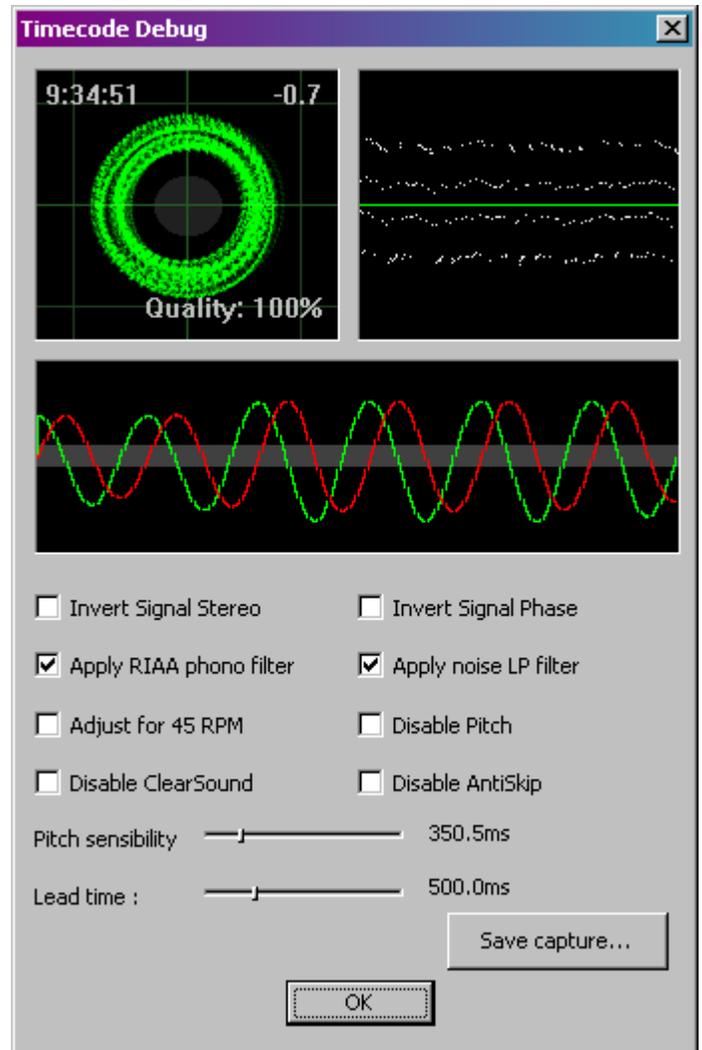
**Disable ClearSound** - ClearSound uses a technology that gives a better sound when you don't scratch, at the expense of a very small delay when you scratch. When playing certain types of heavy tremolo music pitch changes with the DVS can cause artifacts in the sound quality.

**Disable AntiSkip** – uses a technology that will ensure that VirtualDJ will not skip even if your needle skips on your record. Skipping of a DVS control vinyl can occur do to various reasons, if minor skips occur while using the DVS control vinyl, VirtualDJ will compensate for the minor occurrences. This feature can typically be disabled (checked) if using DVS control CDs.

**Pitch Sensibility** – The Pitch Sensibility is used to adjust how much the pitch slider in VirtualDJ should follow the turntable speed. If set too low, the pitch slider will take some time to adjust. If set too high, the pitch slider will move when you just want to scratch.\n(remember, with the Timecode technology, a software has no clear way to know the difference between a disc turning faster because of the turntable's pitch being moved, or because of the disc being nudged or scratched. both result in the timecode signal coming faster.)

**Lead Time** – Adjusts how much lead time is used on the vinyl before the start of the song. This is used so that VirtualDJ can track timecode movement before the actual start of the song.

**Save capture ...** – Use this button to save a .bmp file of your config. You can then upload this image on [www.virtualdj.com](http://www.virtualdj.com) forums if you need to ask for help to configure/optimize your timecode signal.



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<http://www.atomixproductions.com>

<http://www.virtualdj.com>

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Los Angeles CA 90036, USA

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# **VIRTUAL DJ**

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