

# Demix Essentials v2.0 User Manual

Revision 2  
May 8, 2020

**DEMiX** ESSENTIALS

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# 1 Installation and Registration

## Device Activation

On the first opening of the software you will be asked to activate the device. Input your iLok account id (you need to create one for free at <https://www.ilok.com> if you don't have one yet), and the licence code that was sent in the purchase receipt email. Then press Send. Your default web browser should open on the iLok website asking you to log in to your account. Doing so will link your DeMIX Essentials licence to your iLok account and will allow you to run the software.

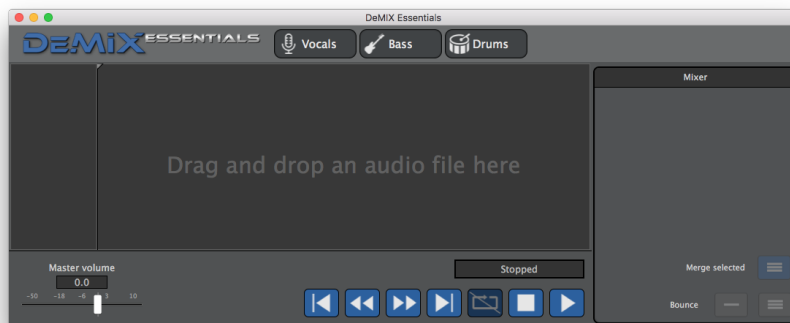
If you want to run DeMIX Essentials on another computer, you can fill the activation form again on the new computer. You will need to use the same iLok account id, as your licence can only be linked to a single iLok account. You should only need to enter your iLok account password once, and only for the activation on the first computer.

If you lost access to your iLok account or want to switch to a different one, please contact [support@audiosourcere.com](mailto:support@audiosourcere.com).

Once your licence is linked the software should open. Although if DeMIX Essentials can't detect any valid iLok activation locations you'll see a troubleshooting window appear. Please make sure you have iLok License Manager installed and running on your computer, and that you have a valid location available (USB dongle plugged in, or iLok Cloud Session open in License Manager). Please note that the software can be installed on multiple devices, but can only be active on one device at a time.

## 2 Quick Start

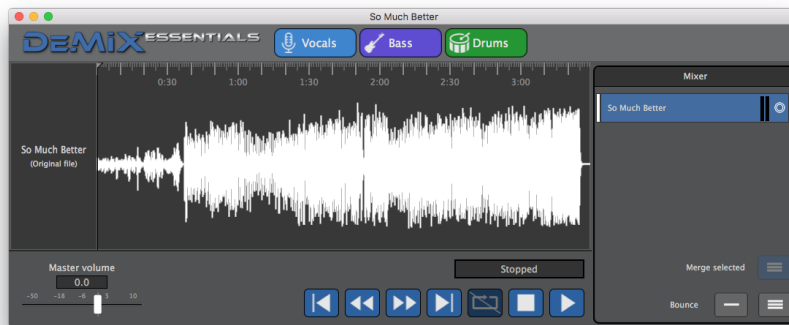
DeMIX Essentials allows you to quickly separate vocals, drums and other instruments from audio recordings. As the extractions are done in the cloud, an internet connection is necessary to use DeMIX Essentials. Without this, the software will not open.



*Essentials application on opening*

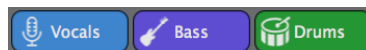
Drag and drop an audiofile into the main panel of the application. Essentials supports loading of wav, aiff, mp3 and flac audio formats. Once the audio has been loaded, the audio waveform is displayed in the main panel of the application.

Playback of the audio can be started and stopped by pressing the spacebar, or via the standard transport controls. The volume of the audio output by the application can be controlled by the master volume slider, situated at the bottom left of the application.



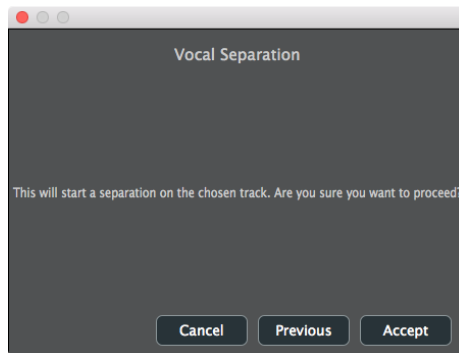
### ***Audiofile Loaded***

In DeMIX Essentials, there are three options for automatically extracting instruments, Vocals, Bass and Drums. Vocals will extract lead and backing vocals from a mix, Bass will extract bass instruments (bass guitar, low-pitched synth tone, etc...), while Drums will extract the drums and other percussion instruments from a mix. Buttons for launching these can be found at the top centre of the application.



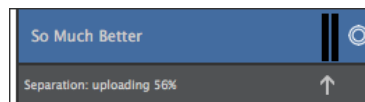
### ***Separation Buttons***

Here we take the use-case of a vocal separation as an example. Pressing the Vocals button will open a window asking you to confirm if the separation should start. Press accept. This starts the vocal separation process.



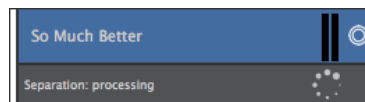
### ***Vocal Separation Confirmation Window***

The audio will then be uploaded to the cloud to extract its vocals. In the mixer side-panel on the right hand side of the application, you will see progress notifications. Initially, you will see that the audio is being uploaded to the cloud.



### ***Uploading Separation Request***

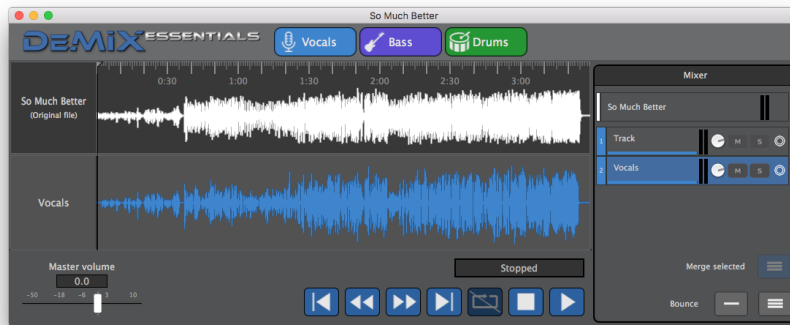
Once the audio has been uploaded, analysis of the audio in order to extract the vocals commences. The progress of this analysis is again displayed in the mixer side-panel on the right hand side of the application. Once this is complete, download of the separated audio starts.



### ***Separation Progress Indicator***

Once the separated audio has been downloaded, the main panel now shows two waveforms, the original mix at the top (for reference) and the separated vocals are displayed at the bottom of the main panel. The mixer panel, on the right-hand side, also shows two new audio tracks, denoted Vocals, which contains the extracted vocals, and Track, which contains the backing track without vocals.

The individual tracks in the mixer panel each contain a volume control knob and level display, as well as mute and solo buttons. The active track is highlighted in a light blue colour, as well as by a double circle. The active track always displayed in the bottom of the main panel, and after a vocal separation, the Vocals track is always active by default.



### ***Vocal Separation Completed***

To hear the separated vocals, press solo on the Vocals track and start playback. Similarly, the extracted backing track can be heard by pressing solo on the Track track. It is important to note that the separation process is non-destructive, with Vocals and Track adding back together to give exactly the original mix.

Apart from the solo buttons, you can mute individual tracks using the mute button, or adjust the balance of the separated tracks using the individual track volume controls. However, for finer control of the volumes, as well as the ability to change the panning of the separated tracks, it is better to use the mixer window. This can be activated by selecting the View menu and clicking on Show Mixer Window. The mixer window will then appear in a pop-up window.



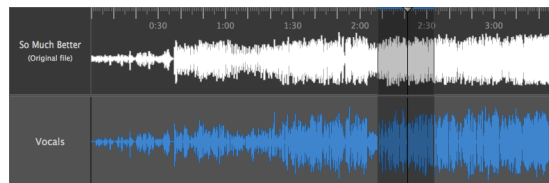
### ***Mixer Window***

Having separated the original mix into separated vocals and backing track, it is possible to run further separations on these new tracks. For example, pressing the Drums button will launch a pop-up window containing a list of the tracks available in the application. Any of these tracks can be used as the input to the drum separation. It is also possible to separate only a section of a track. This will be explained later in the manual.

### 3 Application Overview

#### Main Panel

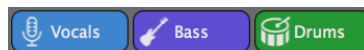
The main panel displays the waveform of the original track for reference, as well as displaying the currently selected separated track. It can also be used to control the playhead position, as well as selecting a region of audio for looping and/or separation. The main panel is discussed in detail in Section 5 *Main Panel*.



*Main Panel*

#### Separation Panel

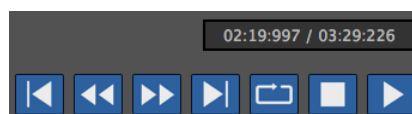
The separation panel is used to launch separations. There are three options, *Vocals* to perform lead and backing vocal separations, *Bass* to perform bass instrument separations, and *Drums* to perform drum separations. These are discussed in detail in Section 4 *Automatic Separations*.



*Separation Buttons*

#### Transport Panel

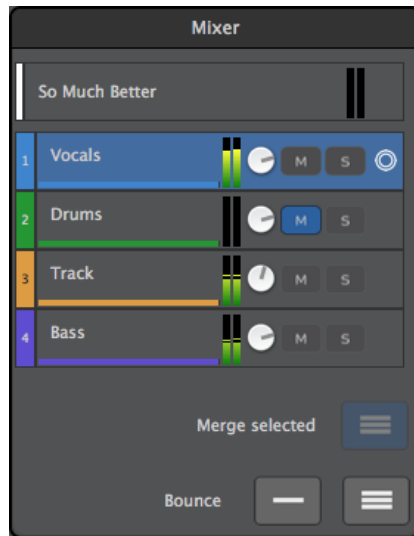
The transport panel contains the master volume slider for the application as well as standard playback controls. These are discussed in detail in Section 6.



*Transport Panel*

#### Mixer Panel

The Mixer Panel displays the original track, as well as any separated tracks generated by the application. It also contains volume controls, as well as mute and solo buttons for these tracks. Additional functionality included in the mixer panel includes the ability to merge tracks as well as export tracks from the application. Further details can be found in Section 7.



**Mixer Panel**

## Menu Bar

The Menu Bar contains options related to importing and exporting audio, saving projects, editing settings, performing separations, as well as displaying the mixer window. Further details can be found in Sections 9, 10, 11 and 12.

## Mixer Window

The mixer window contains volume and pan controls as well as mute and solo buttons for each separated track in the application. Further details can be found in Section 8.



**Mixer Window**

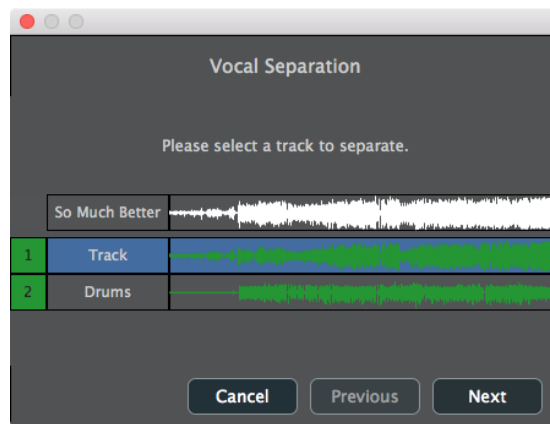
## 4 Automatic Separations

DeMIX Essentials offer 3 automatic separation algorithms: *Vocals*, *Bass* and *Drums*. Running any automatic separation will separate out the corresponding elements from a song or mix.



*Vocals* will extract all voices (lead and backing vocals) at the same time. *Bass* will extract bass instruments such as an acoustic or electric bass, or a low-frequency synthesiser tone. Finally, *Drums* will extract any percussive instruments.

Pressing a separation button brings up a pop-up window which displays a list of all the tracks currently open in the application. Select the track you wish to separate, and press next. Note: if there is only one track currently open in the application then this step is automatically skipped.

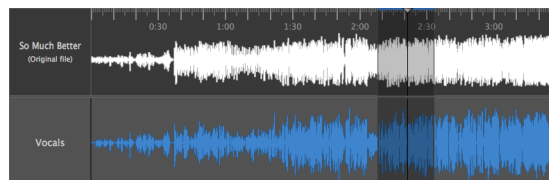


### **Select track for vocal separation**

Once the track has been chosen, the pop-up window then asks if you wish to proceed with the separation on the chosen track. Press Accept if you wish to proceed, Cancel if you do not wish to continue, or press Previous if you wish to return to the previous screen and chose a different track.

## **5 Main Panel**

On opening the application, the Main Panel is empty, apart from an invitation to drag and drop a file to open in the application. Once a file has been loaded, the waveform of the application is displayed, along with a time-line at the top of the main panel. Clicking at any point in the waveform moves the playhead to that position in the waveform. The playhead is displayed as a grey arrowhead in the time-line, with a black line across the waveforms being displayed.



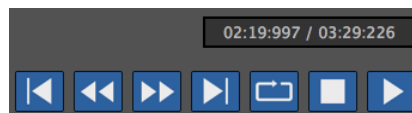
### **Main Panel**

Audio selections can be made by left-clicking and dragging the mouse. Once a selection has been made, looping is activated by default. This can be toggled by pressing the loop button in the transport panel, or by pressing **L** on the keyboard.

Audio selections can also be used to separate limited sections of audio, rather than the full track. This is done by making time selection and pressing any of the automatic separation buttons. If the time selection is not active (loop disabled) then the whole track will be separated.

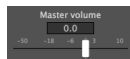
Once a separation has been completed, the main panel will display the currently selected track below the original waveform, which is displayed for reference purposes. The currently selected track can be changed by clicking on a track in the mixer panel (see Section 7).

## 6 Transport Panel



**Transport Panel**

The transport panel is situated at the bottom of the application. It contains a number of controls related to playback of audio. These are as follows:



Master Volume - this slider controls the volume of audio playback from the application. Above it is a display which shows the current gain of the audio relative to its original level in dB.



Return to Start - this button moves the playhead back to the start of the audio. This can also be done by pressing **ctrl+←** on *Windows* or **cmd+←** on *Mac*.



Rewind - clicking on this button moves the playhead back by one second. This can also be done by pressing **←** on the keyboard. Pressing **alt+←** will move the playhead back by 10 seconds.



Fast Forward - clicking on this button moves the playhead forward by one second. This can also be done by pressing **→** on the keyboard. Pressing **alt+→** will move the playhead forward by 10 seconds.



Move to End - this button moves the playhead to the end of the audio. This can also be done by pressing **ctrl+→** on *Windows* or **cmd+→** on *Mac*.



Loop - if an time-selection has been made in the main panel, this button toggles whether looping occurs on that section or not. This can also be done by pressing **L** on the keyboard.



Stop - pressing this button stops playback



Play - pressing this button starts playback

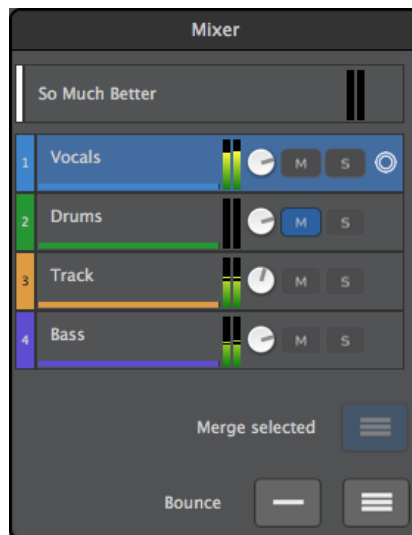


Pause - pressing this button pauses playback

The behaviour of stop and pause depends on the chosen playback mode in the transport settings menu. If auto return is selected, then the playhead will return to it's original position, while if persistent is chosen, then the playhead will stay at its current position when playback is stopped or paused.

Transport Location Display: This text box displays the current location in time of the playhead, as well as the total duration of the file currently loaded in the application.

## 7 Mixer Panel



**Mixer Panel**

The mixer panel is situated on the right-hand side of the application. The mixer panel is empty until audio has been loaded into the application, after which it displays the original file that has been loaded. Once

a separation has been completed, the mixer panel then displays new tracks corresponding to the separated files. These new tracks contain mute and solo buttons for the tracks, as well as volume knobs for the individual tracks. It is important to note that the tracks returned by any separation process sum together to give exactly the original track that was sent to be separated, so that the separation process is non-destructive.



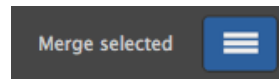
### **Track Strip from Mixer Panel**

Selecting *Original file* in the mixer panel will bypass the mixer and play the original audio file for reference purposes. Clicking on one of the separated tracks returns control of playback to the mixer.

The separated tracks are automatically named, depending on the type of separation that has been performed. In the case of a vocal separation, they are named *Vocals* and *Track*. In the case of a bass separation, they are named *Bass* and *Track*. They can be renamed by double-clicking on the track name, and typing in the desired name.

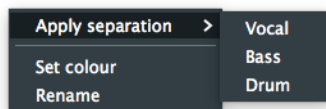
Single-clicking on a track will cause that track to become active, and its waveform will be displayed in the main panel.

Essentials is limited to having only 4 separated tracks available in the mixer panel at any one time. However, it does offer the ability to merge tracks as needed. This can be done by holding down **ctrl** (*Windows*) or **cmd** (*Mac*) and clicking on multiple tracks. Alternatively **shift** and clicking will work as well. Once multiple tracks have been selected, the *Merge selected* button becomes active. Clicking on *Merge selected* will then merge the selected tracks into a single track.



### **Merge Selected Button**

Right-clicking on any track brings up a track menu. This gives a number of options, explained below.



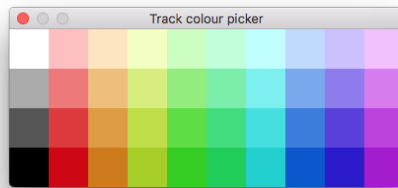
### **Right-clicking on a track**

#### **Apply Separation**

This gives the option to apply either a *Vocals*, *Bass* or *Drums* separation directly on the chosen track.

## Set Colour

Clicking on *Set Colour* launches a pop-up *Track Colour Picker* window. Picking a colour in this window will then change the colour associated with the track to that chosen. Note that the default colour for tracks returned from a vocal separation is light blue, matching the *Vocals* button and that the default colour for drum separation tracks is green, matching that of *Drums* button. The default colour for merged tracks is white.



*Track Colour Picker*

## Rename

Clicking on *Rename* gives the option to rename the track by typing in the desired track name.

## Bounce Mixer Output



Selecting *Bounce Mixer Output* bounces the audio output from the mixer directly to a file. This includes all changes in volume, panning, as well as any mutes or solos. It brings up a dialogue box allowing the user to name the output file. The associated keyboard shortcut for this action is: *Windows* - **ctrl+B**, *Mac* - **cmd+B**.

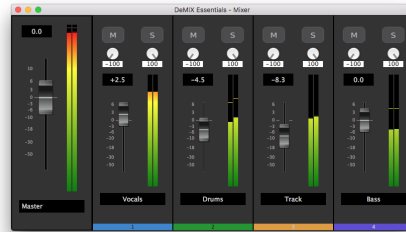
## Export All Tracks



This exports the audio from all the tracks currently available in the mixer. On selecting this option it brings up a pop-up box asking you to select a directory to save the files to. Note that the export filenames will match the names of the track in the mixer panel. The *Export All Tracks* option ignores all panning, volume, solo or mute settings in the mixer. This can also be done using a keyboard shortcut: *Windows* - **ctrl+shift+E**, *Mac* - **cmd+shift+E**.

Exported audio tracks retain all the original metadata of the original audio file, including time-stamps, for ease of importing/exporting to DAWs.

## 8 Mixer Window



**Mixer Window**

The mixer window can be accessed by selecting the View menu and clicking on *Show Mixer Window*, or alternatively via a keyboard shortcut: *Windows* - **ctrl+1**, *Mac* - **cmd+1**. Note that if there is no audio loaded in the application the mixer window will not contain any mixing strips. Once an audio file has been loaded, the mixer then displays a master volume fader. As separations are performed, additional tracks will become available in the mixer, up to a maximum of 4 separated tracks.



**Mixer Channel Strip**

Each separated track has its own channel strip with a volume fader, level indicator, and pan knobs, as well as mute and solo buttons. Tracks can also be renamed by clicking on the track name and typing in the desired name. Double clicking on a volume fader resets it to its original position, as does double clicking on a pan knob.

## 9 File menu

Selecting the file menu brings up a range of options. These are described below:

## Open Audio File

Selecting *Open Audio File* opens a pop-up window allowing the user to select an audiofile to use in the application. This can also be done using a keyboard shortcut: *Windows* - **ctrl+shift+N**, *Mac* - **cmd+shift+N**. If there is already an audiofile open in the application, or another project is already open, a dialogue window will ask if the user wishes to save the existing project before opening the audio file.

Opening an audiofile can also be achieved by dragging and dropping the audiofile from the file manager. Essentials supports loading of wav, aiff, mp3 and flac audio formats.

## Save

Selecting *Save* saves the current project. This can also be done using a keyboard shortcut: *Windows* **ctrl+S**, *Mac* - **cmd+S**. If it is the first time the project is being saved, this opens a pop-up window allowing the user to save the current project open in the application. Type the project name into the file name text box and hit save. This will save the project settings and all associated audio into a project folder.

If the project has been previously saved, selecting *Save* will save the current version of the project into the previously created folder.

## Save As

Selecting *Save as* saves the current project under a new project name. It opens a pop-up window allowing the user to save the current project open in the application. Type the project name into the file name text box and hit save. This will save the project settings and all associated audio into a new project folder. This can also be done using a keyboard shortcut: *Windows* - **ctrl+shift+S**, *Mac* - **cmd+shift+S**.

## Bounce Mixer Output

Selecting *Bounce Mixer Output* bounces the audio output from the mixer directly to a file. This includes all changes in volume, panning, as well as any mutes or solos. It brings up a dialogue box allowing the user to name the output file. The associated keyboard shortcut for this action is: *Windows* - **ctrl+B**, *Mac* - **cmd+B**.

## Export Current Track

This exports the audio from the currently selected track, ignoring any panning, volume, solo or mute settings. This can also be done using: *Windows* - **ctrl+E**, *Mac* - **cmd+E**.

## Export All Tracks

This exports the audio from all the tracks currently available from the mixer. On selecting this option it brings up a pop-up box asking you to select a directory to save the files to. Note that the export filenames will match the names of the track in the mixer panel. The *Export All Tracks* option ignores all panning, volume, solo or mute settings in the mixer. This can also be done using a keyboard shortcut: *Windows* - **ctrl+shift+E**, *Mac* - **cmd+shift+E**.

## Open project

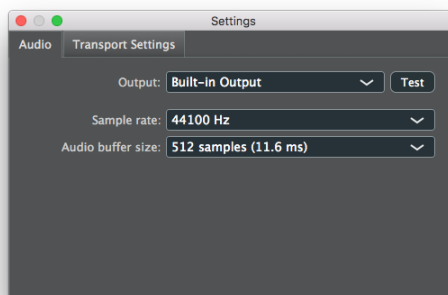
Selecting *Open project* displays a pop-up window which allows the user to open an already existing project. In Essentials, a project file has a file extension of **.sre**, and it will be found in the project folder created when the project was originally saved. This can also be done using a keyboard shortcut: *Windows* - **ctrl+O**, *Mac* - **cmd+O**.

# 10 Edit Menu

Currently the only option on selecting the Edit Menu is *Settings*. Selecting *Settings* launches a pop-up window containing a number of tabs which allow the user to make changes to the default settings for the application.

## Audio

This tab contains settings related to audio playback in the application. These are:



**Audio Settings Window**

## Audio Device Type

This option is Windows only. It typically offers the choice between Windows Audio and Direct Sound for playback of audio.



## Output

This allows the user to select which of the available outputs to use for playback of audio.

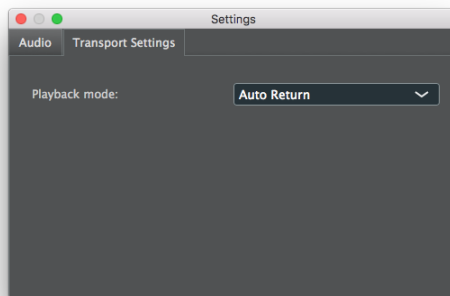
## Sample Rate

This allows the user to change the default sample rate for playback of audio. This is typically 44.1kHz by default.

## Audio Buffer Size

This controls the audio buffer size of the application. If playback is skipping or stuttering, then increasing the buffer size can help eliminate these problems.

## Transport Settings



### *Transport Settings Window*

The transport settings tab allows the user to change the *Playback mode* of the application. When *Auto Return* is selected, pressing stop or pausing playback will return the playhead to its previous position before playback started. When *Persistent* is selected, then the playhead will remain at the current position when pausing or stopping occurs.

## 11 Separation Menu

Selecting the separation menu allows the user to start a *Vocals*, *Bass* or a *Drums* separation respectively. These actions are equivalent to pressing the *Vocals*, *Bass* or *Drums* buttons in the main window of the application. Full details on these can be found in Section 4 *Automatic Separations*.

## 12 View Menu

The only option in the view menu is to *Show Mixer Window*. Selecting this will make the mixer window visible. This can also be done using a keyboard shortcut: *Windows* - **ctrl+1**, *Mac* - **cmd+1**.

## 13 Keyboard shortcuts

	<i>Windows</i>	<i>Mac</i>
<b>Transport Controls</b>		
Play/Pause	<b>spacebar</b>	<b>spacebar</b>
Forward 1 second	→	→
Forward 10 seconds	<b>alt+→</b>	<b>alt+→</b>
Forward to End	<b>ctrl+→</b>	<b>cmd+→</b>
Backwards 1 second	←	←
Backwards 10 seconds	<b>alt+←</b>	<b>alt+←</b>
Return to start	<b>ctrl+←</b>	<b>cmd+←</b>
Toggle looping	<b>L</b>	<b>L</b>
<b>Mixer</b>		
Show Mixer Window	<b>ctrl+1</b>	<b>cmd+1</b>
<b>File Management</b>		
Open Project	<b>ctrl+O</b>	<b>cmd+O</b>
Open Audio File	<b>ctrl+shift+O</b>	<b>cmd+shift+O</b>
Save	<b>ctrl+S</b>	<b>cmd+S</b>
Save as	<b>ctrl+shift+S</b>	<b>cmd+shift+S</b>
Bounce Mixer Output	<b>ctrl+B</b>	<b>cmd+B</b>
Export Current Track	<b>ctrl+E</b>	<b>cmd+E</b>
Export All Tracks	<b>ctrl+shift+E</b>	<b>cmd+shift+E</b>