DISCO XT

User Guide

Version 6.6
www.discoxt.com

What is Disco XT?

Disco XT is a versatile audio application for DJ mixing, music playback and music management, suitable for live performances and for creating mixes offline.

Disco XT includes manual and automated mixing modes, digital audio decks, mixer, sampler, extensive music library, playlist creation, effects, microphone input, recording mixes and more.

For Mac and Windows

System Requirements

- 1.5 GHz or faster processor.
- 1 GB RAM.
- USB or Firewire audio interface or soundcard with 2 stereo outputs. *
- Display with a resolution of at least 1024 pixels width. *2
- 10 GB free disk space (for temporary use).

*2
 1024 pixel width is minimum resolution that Disco XT fits to. Vertical height must be at least 600 pixels.

Windows
- Windows XP, Windows Vista or Windows 7.

*To listen to different audio output with headphones than what is played with speakers, the computer needs to have 2 outputs. You should use a single device with 2 stereo outputs as there can be latency issues if using more than one device.

Mac
- Mac OS X 10.4 or later.
- Intel or PowerPC processor (Universal Binary).

* To listen to different audio output with headphones than what is played with speakers, the computer needs to have 2 outputs. You may use a device with 1 stereo output and use Mac's built-in line out for the 2nd output or you may use a device with 2 stereo outputs for both.

Supported File Formats

Windows
MP3, AIFF, WAVE, WMA, FLAC and OGG VORBIS formats. (Protected WMA files are not supported).

AAC format is also supported if you have iTunes / Quicktime installed.
(Protected AAC files are not supported).

Audio output of Disco XT can be saved in WAVE format.

Mac
MP3, AAC, AIFF, WAVE, FLAC and OGG VORBIS formats.
(Protected AAC files are not supported).

Audio output of Disco XT can be saved in AIFF, WAVE or AAC format.

Audio Setup

Dual output provides two stereo outputs: one for speakers and one for headphones. This enables you to listen to something with headphones without affecting the playback for your audience. Dual output requires your computer to have two stereo outputs available. One way to get the second output is to use USB headphones. USB headphones can have some delay/latency issues if you are mixing in manual mixing mode. A better way is to use a four channel audio interface (USB or Firewire) or a four channel sound card. Disco XT then works with four channel output and there are no delay/latency issues.

Disco XT also supports splitting a single stereo output. In Split mode the speaker output comes from the left channel and the headphone output comes from the right channel. With this option, you do not need any additional audio devices but the outputs will be mono.

Your audio device must be connected before launching Disco XT.

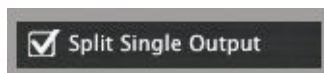Select 'Preferences...' under 'Disco XT' menu.
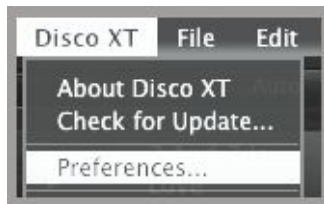
Select the 'Audio' page.
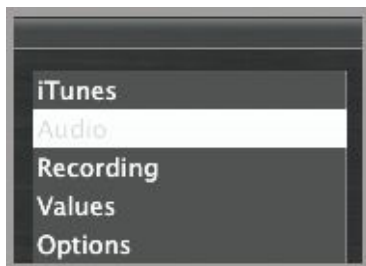
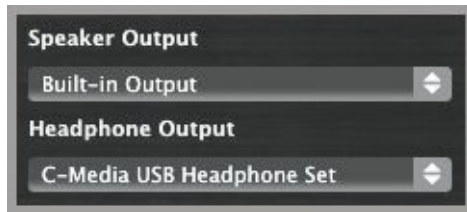**Using a single output**

Check the box 'Split Single Output'.

The audio output popups will then show up as 1/Left and 2/Right.

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Using USB headphones or an additional two channel audio interface

Select your computer's built-in output from the 'Speaker Output' popup menu.
Select your USB headphones (or your audio interface) from the 'Headphone Output' popup menu.

Using a four channel audio interface

Select a driver of your audio interface from both the 'Speaker Output' and the 'Headphone Output' popup menus. The driver must be the same for both.

In this example the audio interface 'Numark DJ IO' is selected (on Mac).

Now channel popup menus should be visible. Select '1+2' for speakers and '3+4' for headphones.

On Windows, if a driver with ASIO in the driver name is available use the ASIO driver. ASIO drivers provides low latency output.

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When using a four channel audio interface, an alternative output mode is available. 'Use Hardware Mixer' sends Deck A to channels '1+2' and Deck B to channels '3+4'.
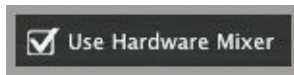
This mode is only meaningful if you intend to use external audio mixer hardware with Disco XT. 'Use Hardware Mixer' option has a limitation: Master effects will only be available for the first two channels.

If you are experiencing audio playback problems you can try increasing the buffer size.

When playing live on a location, mono output might be preferred. Mono output means that the output from left and right speakers is identical. Check 'Mono Output' if you wish to have mono audio output from Disco XT. Disco XT then mixes left and right channels together and plays the same audio output from both speakers.

Some features are not available when 'Mono Output' is selected: Panning controls in the mixer and in effects.

Mono Output reduces CPU usage of Disco XT.a

Tabs

- – Your computer screen might be too "small" to show up all the features of Disco XT at once.
- – You might not need some features of Disco XT at all.
- – You might want to have more space for your music library and for your playlists.

For these reasons Disco XT has a tabbed interface. Tabs are like pages and each page has different features and contents.


One tab shows up audio devices (the decks, the waveforms and the mixer) as well as the 'Sources' and the 'Music List' (on the left) and the 'P List' (on the right). The 'P List' is set to the full height of the screen, and so it is limited horizontally to the space left from the audio devices and because of this it is narrow.
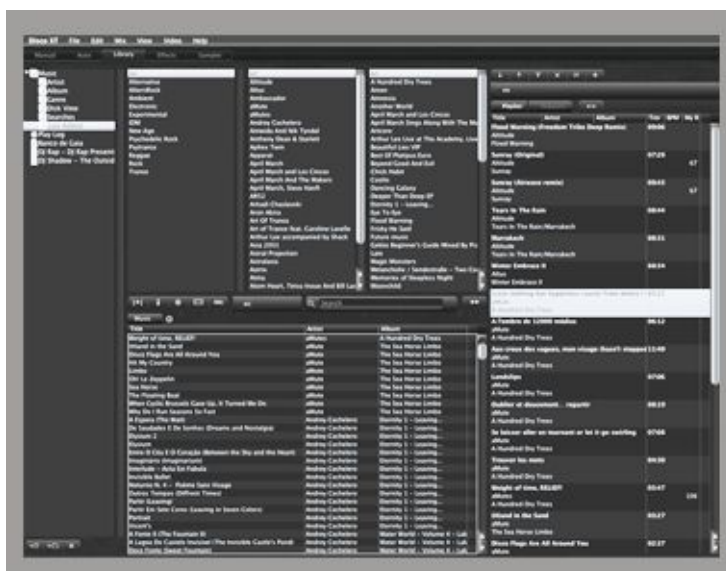
Another tab only shows the 'Sources' an the 'Music List' and the 'P List'. As the audio devices are not shown, there is more height available for the 'Music List'. This height is used to show up the 'Browser' for the 'Music List' which allows

to select genres, artists or albums from the three lists. The 'P List' is also wider in this tab.
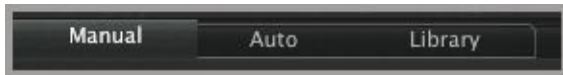

Default tabs suggestion.

Before you have edited the tabs, Disco XT uses the default suggestion on how many tabs you have and what each tab contains. This might not be the ideal arrangement for you and you can edit the tabs to suite your liking. You can clear the default suggestion, or you can just change something in the default suggestion.

To edit the tabs select 'Tabs...' under the 'Edit' menu.

This brings up the tab editing window.

On the left side of the editing window is a list of tabs. The tabs are listed in the same order as the tabs are shown in the main window with first tab at the top. To change the order of the tabs, click on a row and then drag it upwards or downwards.
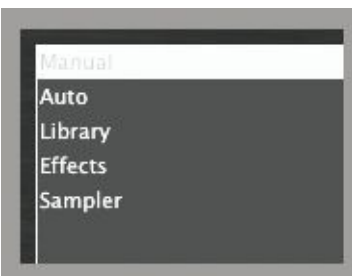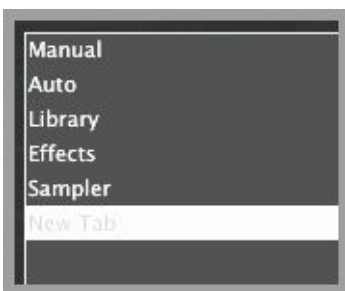

List of tabs.

If you wish to delete a tab, select a tab from the list and then press the 'X' button below the list.
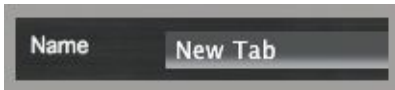

To create a new tab, press the '+' button. The new tab will be added to the end of the list.
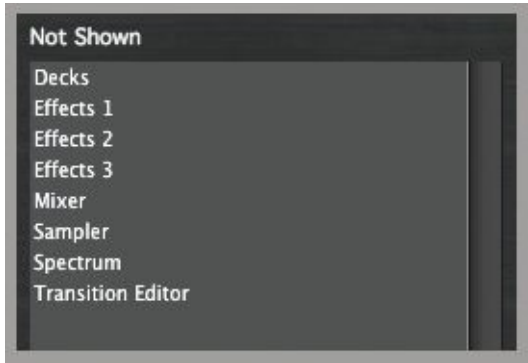

A new tab has been created.

Enter a name for the tab name to the name field. The name should be explanatory so you know what the tab contains from the name.

The 'Not Shown' lists audio devices that are excluded/hidden from the tab.

The 'Shown' lists audio devices that are included/shown in the tab. No audio devices are shown when this list is empty.

To show an audio device, double click it in the 'Not Shown' list and it will appear to the 'Shown' List. You can also use "drag and drop" to add it to the 'Shown' list. When audio device is shown, it will be removed from the 'Not Shown' list as only one copy of each audio device can be shown.

To hide an audio device, double click it in the 'Shown' list and it will appear to the 'Not Shown' list.

The order of the 'Shown' list tells the order in which the audio devices are placed. The topmost in the list is shown at the top in the main window.

'Playback Ctrl' is shown as top most device while the 'Main Adjustrols' is placed below it.

To change the order of the shown audio devices, click a device and then drag it downwards or upwards.

Select the placement of the audio devices from the 'Device Placement' popup menu. 'Top' means that the devices are above the song management and 'Bottom' means that the devices are below the song management.
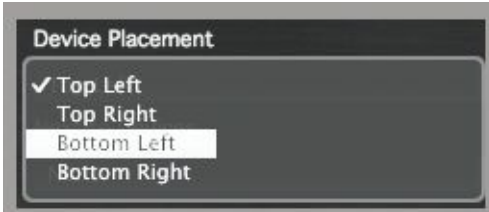

'Device Placement' popup menu is shown with a mouse click.

The Disco XT interface consists of the audio devices and song management. The rest of the tabs editing window is for the song management.

Song management consists of three parts: 'Sources', 'Music List' and 'P List'. For a description of these parts please read the topic 'Song Management'.

There is a check box for each part. When a box is checked with a 'V' icon it is shown in the tab.
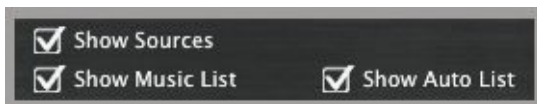
All three parts song management parts are shown.

The 'Music List' and 'P List' parts have additional options to show or hide.

Choose which options you want to show by checking the boxes. The 'Browser' option of the 'Music List' often takes a lot of screen space and might not be suitable if several audio devices are shown in the same tab.

These options can also be shown and hidden under the 'View' menu of the main window.
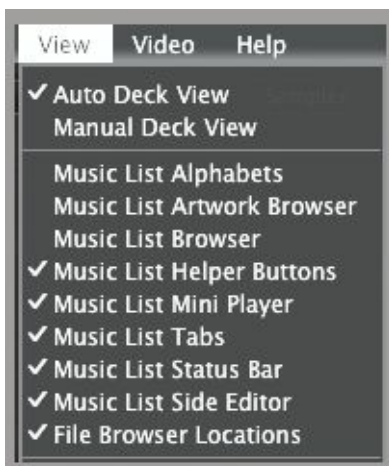

'View' menu of the main window.

If you have both song management and audio devices in the same tab, you may wish to put one of the song management parts next to the devices. This can take use of more screen space that would otherwise be wasted.

This option will not work if you have a small screen with only 1024 pixels horizontally as the audio devices are 1024 pixels wide and there would be no space next to them.

If you do not wish to have any of the song management parts next to the audio devices, select 'None' from the 'Next to Devices' Popup menu.

If you wish a part to have the same height as the audio devices, select 'Device Height'. However, the 'Device Height' option will not work if there are only a few small audio devices shown such as 'Current Song' and 'Playback Ctrl', as the total height of these devices is too small to show a song management part.

If you wish a part to use the full screen height available select 'Full Height'.
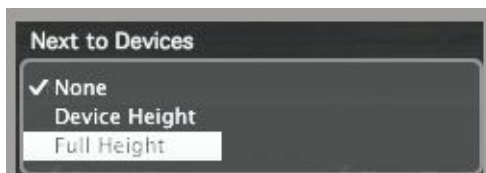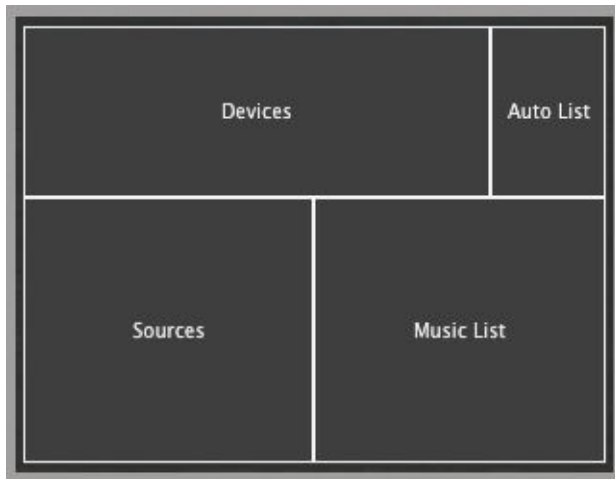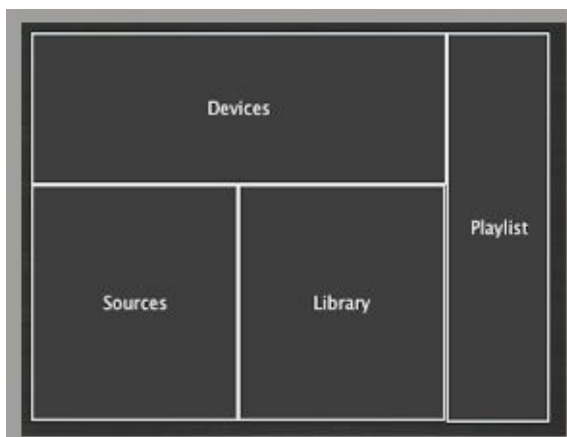

'Next to Devices' popup menu.

The tab editing window shows a visual help on how the interface is laid out. The height of the 'Devices' box in this visual help is not entirely accurate as some audio devices such as 'Effects' have a varying height.
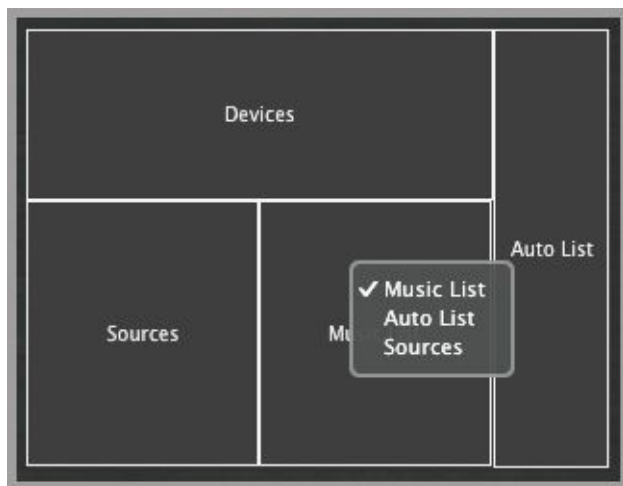

'Next to Devices' set to 'None'.

'Next to Devices' set to 'Device Height'.

'Next to Devices' set to 'Full Height'.

To change placement of a song management part, click a box in the visual help and a menu is shown where you can select which element you wish to show there.


Changing which part to show by clicking the box at the middle with a current setting of 'Music List'.

If you wish to see how the tab looks like as real, press the 'Apply' button and the currently edited tab is set to the current tab of the main window and the tab editing changes are applied.

Navigating between tabs
You can change the current tab in the main window by pressing a tab name.
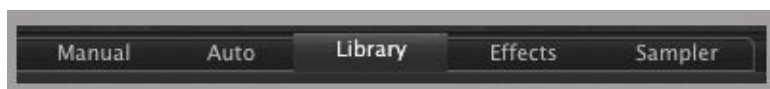
The current tab has been set to 'Library' by clicking on it.

You can also assign keyboard shortcuts to changing tabs. There are keyboard shortcuts available for tabs 1-10. The keyboard shortcut 'Tab 1' is for the first tab on the left, 'Tab 2' is for the second tab from the left. Please read the topic 'Keyboard Shortcuts' for instructions on editing the keyboard shortcuts for the tabs.

The tab keyboard shortcuts can be created and edited in the 'Keyboard Shortcuts...' window.
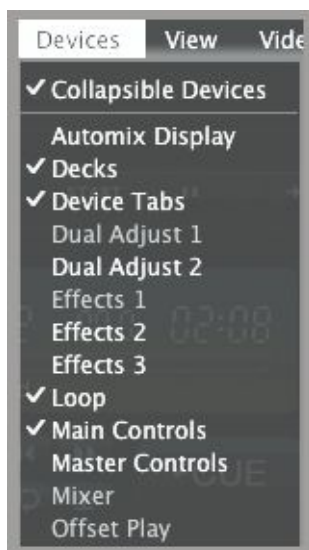
Tab Groups

Audio devices of Disco XT can be placed to additional tabs (inside the main tabs). These are called 'Tab Groups'.

To edit the devices that show up in the 'Tab Groups' and to create new Tab Groups, select 'Tab Groups' under 'Edit' menu.

If you wish to have a device always visible (and not just in one device tab), you should remove the device from the 'Tab Groups' and add it to the main tabs.

When a device is added to the 'Tab Groups' it is not available from the 'Devices' menu normally and the device has to be removed from the 'Devices Tab' first.

Devices in the 'Devices Tab' are disabled from the 'Devices' menu.

Keyboard shortcuts can be set for changing the current device tab. Select 'Keyboard Controlling...' under 'Edit' menu to add shortcuts for the Tab Groups.

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Song Management

Song management is for...
– Creating playlists.
– Finding and selecting songs you wish to play.
– Editing song information such as artist or album name.

Song management consists of three parts: 'Sources', 'Music List' and 'P List'.

The 'Sources' lists playlists you have created, your music library and also automatic playlists such as 'Disk View'.
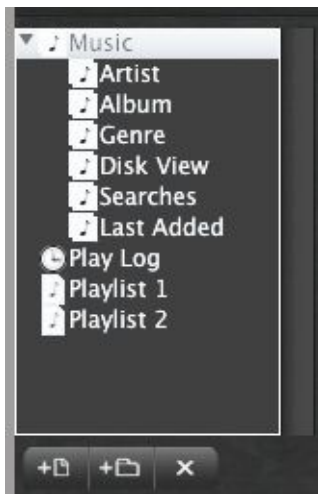
'Sources' list in the main window.

The item you have selected in the 'Sources' list is then opened in the 'Music List' and the songs it contains are shown there.

'Music List' in the main window shows the content of the selected source 'Playlist 1'.

'P List' is a special list that is used in automated mixing mode. The automation gets the songs to play from this list. First song from the list is played first, then the second. When a song has finished playing it is removed from this list. 'P List' is not necessary if you do not wish to use the automated mixing mode.

Title	Artist	Time	My Rat
Same Old Story Pennywise		02:42	
I Won't Have It Pennywise		02:30	
Killing Time Pennywise		02:39	
Peaceful Day Pennywise		02:51	
Waste Of Time Pennywise		02:17	
Perfect People Pennywise		03:04	
Every Single Day Pennywise		02:39	

'P List' in the main window lists songs used for automation.

Sources

The first item in the 'Sources' list is 'Music'. This is the master song list and has all the songs you have available in Disco XT. If you remove a song from the 'Music' list the song will be removed from all other items in the 'Sources' as well.

There are two ways to get songs to the Disco XT library:
- – You can add songs from your hard drives.
- – You can use your iTunes music library and playlists in Disco XT.

Adding songs to Disco XT from your hard drives
Select 'Add to Library...' under 'File' menu.

This will bring up the 'Add to Library' window.

'Locations' lists folders or hard drives from your computer. By default it includes the following items:

'Desktop' shows your desktop folder
'Documents' shows your documents folder
'Music' shows your music folder.
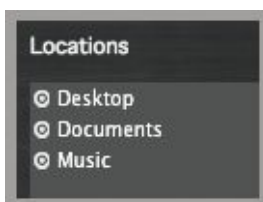
The purpose of the 'Locations' list is to allow a quick shortcut to locations on your computer where you would frequently add song files from.

You may add new locations to the list by dragging a folder from the 'File Browser' list to the 'Locations' list.

A new location 'My Music' has been dragged to the 'Locations' list.

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To remove a location from the list, select it and then press the backspace key.

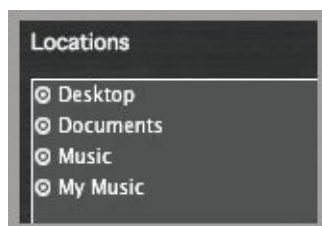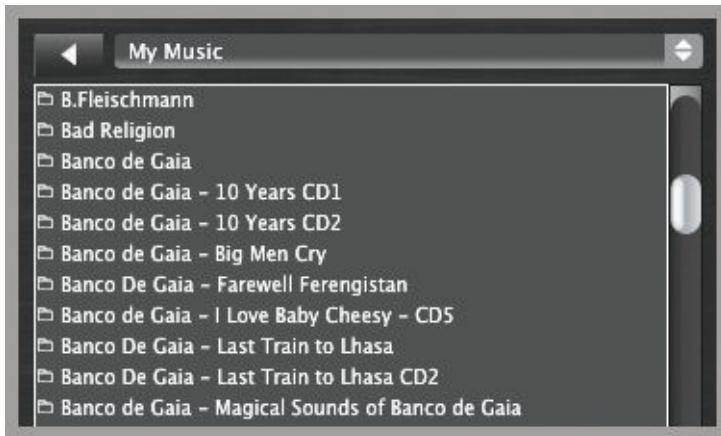Next to the 'Locations' list is the 'File Browser' list. This lists the contents of a location (a folder or a hard drive). The content is either folders inside the location or audio files.

'File Browser' lists the contents of the selected location 'My Music'.
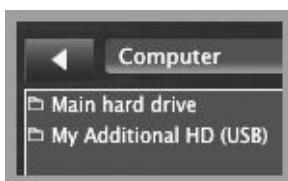
Example location:
Computer / Main hard drive / My user name / Desktop / My Music.

'Parent' button changes the location of the 'File Browser' to the parent of the current location. In this case, the parent location would be 'Desktop' as the 'My Music' folder is inside the 'Desktop' folder. If you would press the 'Parent' button again, the location would be 'My user name'.

'Parent' button.

The last parent location available is 'Computer'. This location lists all the hard drives you have available.

Example of 'Computer' location lists all the hard drives available: a main hard drive and an USB hard drive.

The name of the current location is shown next to the 'Parent' button. This is a popup menu and you may press on it to show a list of the location and its parent. In the menu, you may select the parent of the current location or the parents parent and so forth. This has the same functionality as pressing the 'Back' button one or more times.

Menu of the current location and its parents is shown.

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Folders have a 'folder' icon in the 'File Browser' List.

Audio files have a '>' icon in the 'File Browser' List.

Double click a folder on the 'File Browser' list to open it in the 'File Browser' list. If you wish to go back to the previous location later, press the 'Parent' button.

If you try to open a folder which has only one folder inside and no audio files, the folder inside will be opened instead. For example if you have a folder named 'Greatest Rock Band' and inside it is only one folder 'Greatest Hits', opening the 'Greatest Rock Band' folder will open the 'Greatest Hits' folder directly.

If you wish to listen of an audio file with your headphones, double click an audio file on the 'File Browser' list. The preview player opens up below the 'File Browser' list.

'Preview Player' is playing an preview of the audio file when the green light is shown.

To stop playing a preview, press the 'Play/Pause' button in the 'Preview Player' and the green light will turn off.

The 'Preview Player' has a white diamond that indicates the playback position of the audio file. You may click on the rail to change the playback position.

The 'Add' list on the right side of the window lists audio files and folders to be added to the Disco XT library.

Press the 'Add' button to add the selected audio files or folders from the 'File Browser' list to the 'Add' list. You may also do this by pressing the 'Return' key on your keyboard or by dragging the items to the 'Add' list.

You may have a one folder on your computer that contains all your music files and it is quickest to just add that folder to the 'Add' list. All folders will be scanned for audio files within and folders within folders as well. This scanning happens after you have finished with the 'Add to Library' window.

In this example, the audio file 'song1.mp3' is added to the Library when just adding the 'My Music' folder to the 'Add' list.
Example:
My Music / Genre Name / Artist Name / Album Name / song1.mp3

'Add' button.

You can select more than one item from the 'File Browser':
First select one item by clicking on it and then select another item while holding the 'Shift' key down on your keyboard. This will select all items between the first item clicked and the last item clicked.

One item is selected by clicking on it.

Additional items are selected by clicking while holding down the 'Shift' key on the keyboard. All items between the first and the last are selected.

Another key from the keyboard will select additional items to the selection. On Windows, this is the 'Control' key and on Mac this is the 'Command / Apple' key.


'Control' key or 'Command / Apple' key selection.

If you wish to remove items from the 'Add' list, select one or more items and press the 'Remove' button or the 'backspace' key.

'Remove' button.

When you have added all the needed audio files and folders to the 'Add' list, press the 'Add' button. The 'Add to Library' window will be closed and Disco XT begins to add audio files to the library. Depending on how many audio files are found, it can take several minutes to add the audio files to the library.
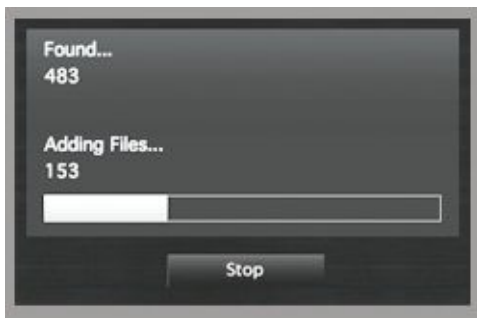
In this example, 483 audio files were found from the 'Add' list and 153 of the audio files have been processed so far

When audio file adding process is completed, the songs will be available in the library.

If you have previously added many audio files to the library and then wish to add additional songs, it can be useful to only see the audio files that were added with the last 'Add to Library' command. For this purpose, the program updates a playlist after each 'Add to Library' command. The playlist is named 'Last Added'. This playlist is located inside the 'Library' item and can be shown by clicking on the triangle icon on the left side of the 'Library' item.

**Using iTunes library and Playlists in Disco XT**

With this option, songs you have in your iTunes music library will be automatically available in Disco XT. Playlists will be available as well.

To enable or disable this setting (after the initial setting), select 'Preferences...' under 'Disco XT' menu and select 'iTunes' page.

Disco XT obtains the songs you have in iTunes and your iTunes playlists from a XML text file iTunes generates named 'iTunes Music Library.xml'.

The iTunes preferences page of Disco XT has a setting for this XML file. In many cases it is not necessary to change the default value. However, sometimes the XML file of the iTunes library is not in the default location. If the music library you have in iTunes does not match the library you see in Disco XT, it could be because of this. In that case you need to tell Disco XT the location of the XML file yourself.
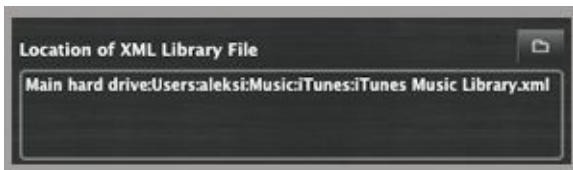
The default location is:
Username > Music > iTunes > iTunes Music Library.xml.

Press the 'Folder' button to locate the correct iTunes Music Library.xml file.


'Folder' button.

When iTunes option is enabled, a button will appear above the 'Sources' list. This button changes the mode of the 'Sources' list. 'Sources' does not show iTunes playlists and playlists created in Disco XT at a same time, but only either one.

When the 'iTunes' button has a blue light, the 'Sources' will show iTunes playlists and Disco XT playlists will be hidden.
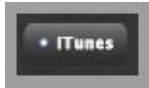
Playlists from iTunes are shown when the blue light is on.

When the 'iTunes' button does not have a light on, the 'Sources' will show Disco XT playlists and playlists from iTunes are hidden.
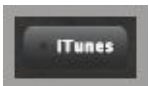
Playlists from iTunes are hidden when the light is off.

You may add new songs to your iTunes music library and create or modify playlists in iTunes while Disco XT is running. It takes a few seconds for the updates you have made in iTunes to appear to Disco XT.

Playlists created in iTunes are read-only in Disco XT. You cannot rename the playlists or add new songs to the playlists or change the order of the songs in the playlists.

You can of course add the contents of a playlist to the 'P List' of Disco XT and then change the order of the songs or remove songs before playback.

You can also create a new playlist in Disco XT and copy/paste songs from a iTunes playlist in to it.

To do this, first open the desired iTunes playlist from the 'Sources' list and select songs you wish to copy. Then select 'Copy' under 'Edit' menu.

Now press 'iTunes' button to hide iTunes playlists and to show Disco XT playlists. Press 'New Playlist' button to create a new playlist, activate the 'Library' by clicking on it and then select 'Paste' under 'Edit' menu.

The 'Music List' is activated when there is a small bright border around it.

Limitation:

Protected songs from the iTunes Store cannot be used in Disco XT and are not shown in the Disco XT library at all. The protected songs have the extension .m4p in the filename. A few years ago, the iTunes Store started to sell most of the songs in the non protected format that works fine with Disco XT. However, some songs in your library might be in the protected format.
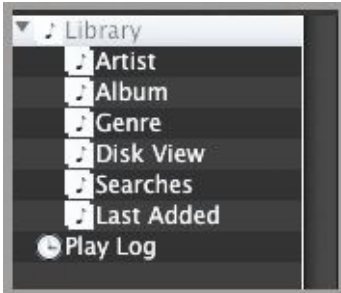
Mac only:

If a file from iTunes library is not found in Disco XT, try relocating:

Select 'Check for Missing Files' from 'File' menu and after the check, select 'Relocate'. This updates correct file locations in many cases.

Automatically Created Playlists
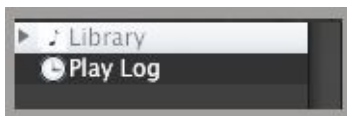
When the triangle points to the right, the automatically created playlists inside the 'Library' item are hidden.

Clicking the triangle shows the automatically created playlists.

'Artist' is a playlist that shows the library content organized in to artist folders. Each different artist on the library has its own folder. A folder is identified with • before the artist name.

'Artist' shows the library with each artist as a folder.

Double click an artist folder to see the songs from that artist.
Click the 'Parent' button to go back to the list of artist folders.

'Parent' button.

'Album' and 'Genre' playlists organize the songs into folders as well, but instead use the 'Album' and 'Genre' fields of the songs for the folders.

'Disk View' is a playlist that shows the songs in the library organized in the same way as the files are organizes on your hard drives / disks.
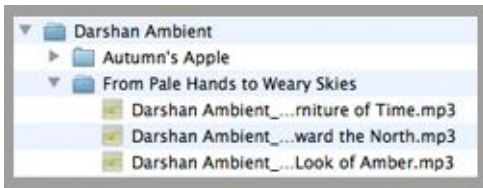
Example of how audio files might be organized on hard drives, to folders and sub folders. This picture is from the Mac OS X operating system.


The 'Disk View' shows the songs organized to folders, the same way as in the above picture. Although the 'Disk View' does not allow opening folders with triangles.
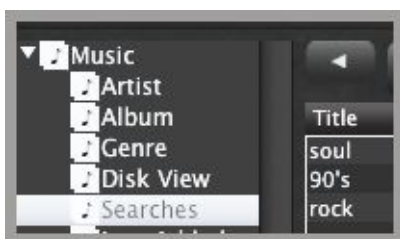
Double click a folder to see its contents, which will be more folders or audio files.

Use the 'Parent' button to go back to the previous folder.

'Searches' is a playlist that logs searches. When you search for something from the library, the search words are added to the 'Searches' list.
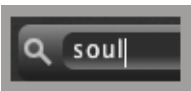
Word 'Soul' has been entered to the search field above the 'Library'.

The search 'Soul' has then been added to the 'Searches' list.

Double click an item in the 'Searches' list and a search with those words will be made again.

'Play Log' is an automatically created playlist that shows songs that have been played. Songs are in the same order as they were played with the latest song at the end of the list.

Disco XT has some preferences available for the 'Play Log', such as clearing the log automatically each week and writing the logs as text files automatically. Please read the topic 'Preferences' for more information.

Press the 'New Playlist' button to create a new playlist to the 'Sources' list. The button is located below the 'Sources' list.

'New Playlist' button.

'New Folder' button.

Press the 'New Folder' button to create a new folder to the 'Sources' list. Folders are used to store playlists and cannot contain songs. Folders are used to make the 'Sources' list more organized when there are plenitude of playlists. Folders can contain other folders.

When you click a folder in the 'Sources' list, the 'Music List' shows songs from all playlists inside the folder as a single list. This list is for viewing only and you are unable to make changes to the song list. To make changes, you need to edit the playlists individually. Click the triangle of the folder to show/hide its contents.

Example of how playlists can be organized to folders.

To change name of a folder or a playlist, Double click it in the 'Sources' list. Enter a new name to the field and press the 'Done' button or hit the 'Return' key.

Renaming a folder 'Older Playlists'.

Press the 'Delete' button to delete a folder or playlist from the 'Sources' list. Automatically created playlists such as the 'Play Log' cannot be deleted. If you delete a folder from the 'Sources' list, its contents will be deleted as well.

'Delete' button.

Music List

'Music List' part allows to browse songs on your music library and on your playlists. The 'Source' part gives 'Music List' the source of songs which will be a playlist or the entire music library.

'Music List' shows different fields (such as Title or Artist) in separate columns.

'Music List" shows three columns: Title, Artist, and Album.

You can sort songs by a column by clicking on the top of the column where the field name is shown. If you sort by 'Artist' column songs from artists starting with the letter 'A' will come before 'B'.

Songs sorted by 'Artist' column.

Clicking the top of the column two times inverts the sorting direction and songs from artist starting with the letter 'Z' are shown at the top and 'A' will be shown at the bottom of the list. The triangle at the right side of the column then points down.

Songs sorted by 'Artist' column with inverted sorting direction.

Click the top of the column once or twice to turn of column sorting. The triangle at the right side of the column disappears and the column top has a darker color.

Disco XT can sort columns using more than one field. When you sort a list of songs by 'Artist' Disco XT sorts the songs first by artist and then by album. You can change this sorting behavior by selecting 'Column Sorting...' under the 'Edit' menu.

You can change the width of a column (resize) by moving the mouse cursor to between two columns. 'Left and right pointing arrows' cursor will appear. Press down and drag left or right.

'Left and right pointing arrows' cursor appears when resizing is available with the mouse.

If a list of songs that the 'Music List' shows is long, you might wish to reduce the number of songs in it with using criteria. There are a couple of ways to do this.

If you know what you are looking for in the 'Music List', you can use the 'Search' field to find it.
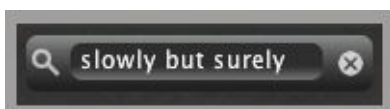
3 words have been typed to the 'Search' field.

Each word you type to the 'Search' field will be searched separately. This means that typing "Weather Bad" will find an album called "Bad Weather". If a word contains the minus sign – on the left side it will be inverted. Typing "Weather -Bad" will find songs that have the "Weather" word but that do not have the "Bad" word. A word is searched for in all of the song fields available, such as title, artist, album, genre, grouping and more. It will search all the song fields even if some of the fields are not visible to you in the list.

To remove a search from the 'Music List', press the 'X' button on the right side. You may also do this by clearing the text in the search field with the 'Backspace' key.

Songs in the 'Music List' have several fields available. The information in these fields is obtained from your audio files. The tags in the audio files are read by Disco XT when new files are added.

Fields include:
Title – the name of the song such as 'Yesterday'.
Artist – the performing group or musician.
Album – the name of the collection of songs such as CD name.
Comment – this can be anything.
Composer – the real name of a musician while the 'Artist' might be an alias.
Disc – If the songs on the album were split to more than one CD this indicates the disc.
Track – the order of songs in a CD, such as '3 of 10'.
Genre – a label to describe the type of music, such as 'Rock' or 'Blues'.
Grouping – similar to genre, what this is used for varies between users.
Year - when the record /CD was released originally, such as 1974.
Play Count – how many times a song has been played in Disco XT.
My Rating – between 0 and 5 stars of personal preference, how much you like or dislike a song.
Last Play – when the song was last played in Disco XT, such as June 4 2010.

Date Added – when the song was added to the Disco XT library.
Date Modified – when these fields of the song were last edited.
Bit Rate – this works for MP3 files only and indicates the file quality, such as 192 kbps.
BPM – tempo/pace of the song, how fast or slow the song rhythm is.

These fields can also be called 'Keys'.

The 'Browser' shows three key lists. By default, the first list from the left lists genres, the second list lists artists and the third list lists albums.

If the 'Browser' is not visible, you may show it by selecting 'Music List Browser' under the 'View' menu. The 'Browser' needs some screen space and it might be necessary to put the 'Music List' with 'Browser' to a different tab. See the topic 'Tabs' for instructions.

'Browser' has three lists: 'Genres' on the left side, the second lists 'Artists' and the last lists 'Albums'.

The first item in these lists is always 'All' and when this is selected it will show songs from all of the keys in that list. You may select more than one key from a key list at once.


Three keys have been selected: Blues, Classical and Country.

Selection made to the first key list changes the content of the next key list. When the 'Genre' key list has been set to 'All', the second 'Artist' list shows all artists available in the song list. If the 'Genre' list selection has been changed to 'Rock' , for example, it would only show 'Artists' from the genre 'Rock'. The 'Artist' list selection will change the content of the last key list 'Album' the same way.

If you would like to use different keys for the 'Browser' than the default: Genre, artist, album. You may do so by selecting 'Browser Keys...' under the 'Edit' menu.

The height of the 'Browser' can be adjusted. To do this, move your mouse cursor to the bottom of the 'Artwork Browser' and the cursor will change to 'Up and down pointing arrows'. Hold down the mouse and drag up or down.
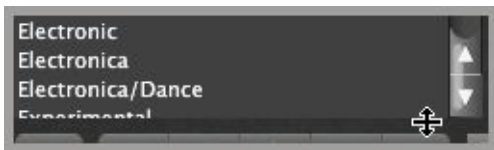
'Up and down pointing arrows' cursor.

'Artwork Browser' allows to select an album from an artwork picture. Your audio files must have artwork pictures stored in the files for this feature to work. Disco XT does not support adding artwork pictures to audio files. You need to have another application to add artwork pictures to your audio files such as 'iTunes'.

If the 'Artwork Browser' is not visible, select 'Music List Artwork Browser' under the 'View' menu.

'Artwork Browser' shows three album artworks on this page.

Often there isn't enough screen space to show all artworks at once and the artworks are then placed to several pages. The arrow on the left side takes you to the previous page. When you are on the first page, the arrow will be disabled. The arrow on the right side takes you to the next page of artworks. If there are no more pages, the arrow will be disabled.

Click an artwork to select it and songs that match the artwork picture will be shown and everything else will be hidden away. When you do this a 'X' icon appears on the artwork that is selected.

An artwork has been selected and the 'X' icon has appeared on to it.

To show the list of all songs again, press the 'X' icon and the artwork will be deselected.

The size of the artworks can be adjusted. To do this, move your mouse cursor to the bottom of the 'Artwork Browser' and the cursor will change to 'Up and down pointing arrows'. Hold down the mouse and drag up or down.

'Up and down pointing arrows' cursor.

You can use the 'Alphabets' feature to jump to a letter in the song list. The first letter of a field is used for this. Click a letter you wish to jump to and the song list will scroll there. The first item '123' means numbers (0, 1, 2, 3...)

For the 'Alphabets' to work a column needs to be sorted.

All letters except N, X and Y are available. There happens to be no items in the list that start with those letters in this example.

"Music List' has support for tabbed browsing. This allows to store different song lists and to switch quickly between them. Search words, browser selection and the artwork browser selection are all stored to the tabs.

To change the current tab, press the name of the tab you wish to change to. To create a new tab, press the '+' icon at the right side. To delete a tab, press the 'X' icon of a tab. If there is only one tab you cannot delete it.

You may enable or disable the Music List Tabs feature by selecting 'Music List Tabs' under the 'View' menu.

First tab has a search word 'Rock'.
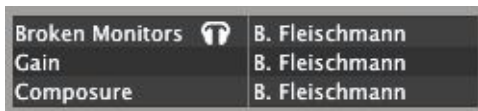
Second tab has search words 'New Age'.

You may also use the 'File' menu to create a new tab or to delete a tab: 'New Music List Tab' and 'Delete Music List Tab'.

Disco XT allows to set keyboard shortcuts to switch between music list tabs. This feature is disabled by default. If you wish to use keyboard shortcuts for the music list tabs you need to edit/create the keyboard shortcuts. Read the topic 'Keyboard Controlling'.

The music list tabs are for one session only. If you exit/quit Disco XT and then reopen it the music list tabs from the previous session will no longer be available.

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If you wish to have quick listen to a song, double click an item from the list and it will open in the 'Mini Player' and starts to play. The song will be played from headphones. Song that is being listened is shown with a headphone icon.

Song 'Broken Monitors' is being listened.

To stop playing a preview press the 'Play/Pause' button in the 'Mini Player' and the green light will turn off.

The 'Mini Player' has a white diamond that indicates the playback position of the audio file. You may click on the rail to change the playback position.

'Mini Player' is playing a preview of the audio file when the green light is shown.

The default keyboard shortcut to start or stop playing the 'Mini Player' is the 'space' key.

For convenience, some of the 'Music List' features can be accessed with the 'Helper Buttons'. To show these buttons, select 'Music List Helper Buttons' under 'View' menu.

Helper buttons, starting from the left:
- Detect BPM for Selected.
- Edit Info...
- Show/Hide Artwork Browser.
- Show/Hide Browser.
- Show/Hide Alphabets.

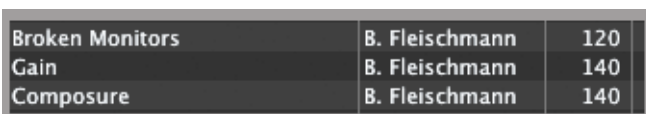'Helper Buttons' of the 'Music List'.

All of these features can also be accessed from the 'File' and 'View' menus.

'Detect BPM for Selected' automatically detects a BPM value for each selected song on the list. You can also do this by selecting 'Detect BPM for Selected' under 'File' menu.

BPM values have been detected for the songs and show up in the last column as numbers 120, 140, 140.

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'Edit Info...' opens up an editor for editing the fields of the selected songs. You can also do this by selecting 'Edit Info...' under 'File' menu.

The 'Edit Info...' window can be used in two ways:
- For a single item.
- For multiple items at the same time.

If multiple items are edited at the same time some fields are not available.

Fields that are not available for editing with multiple items:
- Title.
- BPM.
- Track.
- Disc.

When editing multiple items at the same time, you must check the box on the left side for each field you wish to set new text for.

'Genre' field box is checked and "IDM" is set to genre of each selected song. Which by the way is short for "Intelligent Dance Music".

If you are editing a single item, you will see buttons 'Previous' and 'Next'. These buttons save the changes you have made in the editing window, and the previous or next song in the 'Music List' is opened for editing.

'Previous' and 'Next' buttons are available when editing a single item in the editor.
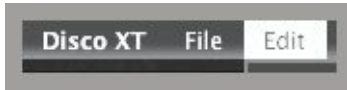
You can use the 'Tab' key to switch between fields in the 'Edit Info...' fields with keyboard.

Press 'Add to the P List' button to add the selected songs from the 'Music List' to the 'P List'.
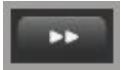
'Add to the P List' button.

You can also add songs to the 'Automation List' with copy/paste. First select songs from the 'Music List' and select 'Copy' under 'Edit' menu.

Activate the 'P List' by clicking on it and then select 'Paste' under 'Edit' menu.

'P List' is activated when a light border appears.

You can also add songs to the 'P List' with drag and drop. Select one ore more songs from the 'Music List' and then click on any of the selected songs and hold down the mouse. While the mouse is being held down, drag the songs to the 'P List' and release the mouse.

Adding 8 songs to the 'Automation List' with drag and drop.

Playlists you have created in Disco XT are listed in the 'Sources' list. You can use copy/paste to add songs from the 'Library' to a playlist. First copy songs from the library and then select the playlist you wish to copy the songs to from the 'Sources' list. Activate the 'Music List' list by clicking on it and select 'Paste' under 'Edit' menu.

You may also use 'drag and drop' to add songs from the 'Library' to a playlist. Drag songs from the 'Music List' to above the name of a playlist in the 'Sources' list. The playlist name in the 'Sources' list will blink when songs have been added to the playlist.
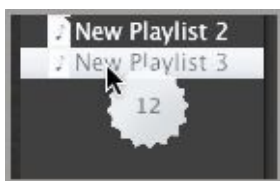
Adding 12 songs from the 'Library' to a playlist 'New Playlist 3'.

You can right click an item in the 'Music List' to show up the 'Right-click menu'.
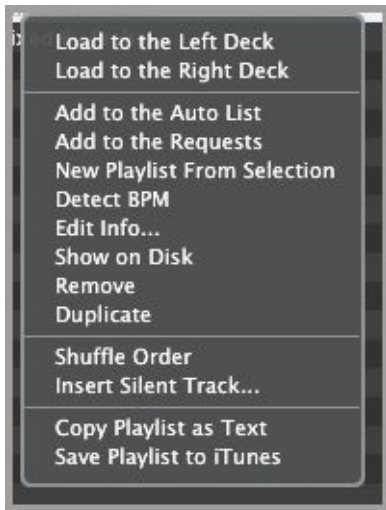
'Load to the Left Deck' loads the selected song to the deck on the left side.
'Load to the Right Deck' loads the selected song to the deck on the right side.
'Add to the P List' adds the selected songs to the 'P List'
'Add to the Requests' adds the selected songs to the 'Requests'.
'New Playlist from Selection' adds a new playlist to the 'Sources' list and places the selected songs to that new playlist.
'Show on Disk' shows the selected audio files on your disk. On Mac this opens the file locations in the 'Finder' and on Windows this opens the file locations in the 'Windows Explorer'.
'Remove' removes the selected songs from the list.
'Duplicate' places the selected songs to the playlist twice.

'Copy Playlist as Text' copies the songs as text to the clipboard so you can paste the text to a text editing program.

Example playlist content to be copied as text.

Example text available with 'Paste' in a text editing program:
Hol Baumann - Hours
Hol Baumann - Breathe
Hol Baumann - Radio Bombay
Hol Baumann - Bénarès (Vârânaçî edit)

'Save Playlist to iTunes' creates a copy of the playlist you have created in Disco XT to iTunes. This features is only available on Mac OS X.

Some items in the menu will be unavailable if the current 'Source' of the 'Music List' is not a playlist. For example, you cannot duplicate songs in the 'Library' source.

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The order of songs can be changed if the source of the 'Music List' is a playlist. The song order cannot be changed if a playlist has been sorted by a column.

To change the song order, select one or more songs and then click on any of the selected songs, hold down the mouse and move the mouse up or down. A light line will appear indicating the new position.

The first song ("Cursed World") of a playlist is being moved to be the last song.

To remove selected songs from a playlist, press the 'Backspace' key from your keyboard.

You can view a song list and a playlist editor at the same time. Select 'Music List Side Editor' under the 'View' menu if the editor is not visible. The side editor appears between the sources list and the music list.

When the side editor is used and an item is selected from the sources list, editable song lists appear to the side editor list while non-editable lists appear to the music list.

Editable playlists are playlists you have created in Disco XT.
Non-editable playlists include the Library, iTunes playlists, File Browser and some others.

By default the side editor only shows the song title. You can show more information in the editor by selecting 'Columns...' under the 'Edit' menu.

File Browser is available for the 'Music List'. File Browser allows to quickly browse for audio files on your computer without adding the audio files to the Disco XT music library.

Select 'File Browser' from the sources list to open up the file browser.

The file browser has a 'Locations' list, that by default includes the locations: Deskop, Documents, Music. New locations (folders) can be added to the 'Locations' list for quick access. To open the File Browser to a location in the 'Locations' list, simply click an item from the list.

To add a new location to the 'Locations' list, drag it from the 'Music List' to the 'Locations' list.
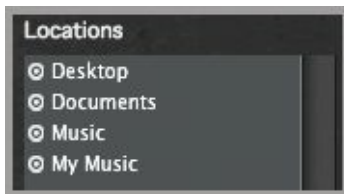
If you do not wish to use the 'Locations' list with the File Browser, you may disable it by unselecting 'File Browser Locations' under the 'View' menu.

If you have a small screen resolution and there isn't enough room to show up the locations list it will not be visible.

Folders in the 'File Browser' list are shown with • icon.
Double click a folder to open it.
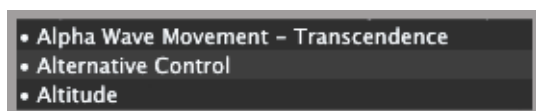
To go back to the previous folder, press the 'Back' button.

'Back' button.

Songs in the File Browser are shown with file name only (such as mymusic file1.mp3). When a song is added from the 'File Browser' to another song list, the song is then added to the Disco XT Library as well and more information (such as Artist and Album) is available.

You can drag items from the 'File Browser' to the 'P List' to playlists in the 'Sources' list, to the 'Library' item of the 'Sources list', to the audio decks or to the 'Side Editor'.

P List

When Automix mode is enabled, Disco XT takes care of:
– Loading songs to the decks.
– Transitions from one song to another.

The automated mixing mode "Automix" uses the 'P List' as the source of songs. The top-most song in the 'P List' is the currently playing song or the first song to be played.

Title	Artist	Time	Clock	
The Devil Said Shake Lisa George		06:17		
Funnel Of Love Lisa George		02:26 5 min		
Didn't It Rain Lisa George		02:38 8 min		

The top-most song "The Devil Said Shake" is playing and the second song 'Funnel Of Love' is waiting to be played next.

Title	Artist	Time	Clock	
Funnel Of Love Lisa George		02:26		
Didn't It Rain Lisa George		02:38 2 min		

The song "The Devil Said Shake" has now been played and the song "Funnel of Love", which is now the top-most song, is now playing. The second song on the list "Didn't it Rain" is being waiting to be played next.

You can change the order of songs and remove songs in the 'P List' the same way as with the 'Music List'

When "Automix" has been started and the top-most song is playing, the top-most song is locked and you cannot remove it from the list or move another song to the top of the list.

Disco XT removes songs that have been played from the P List automatically. If you wish to have a same list of songs available at a later time, you should create the list of songs as a playlist to the 'Sources' list and then copy the songs to the 'P List'

For the first and the second songs, starting times (cueing) can be set using the audio decks. You can set starting times for other songs in the 'P List' using the 'Cue Player'. To show the player, select 'P List Cue Player' under the 'View' menu. The 'Cue Player' works the same way as the audio decks.

You can show 'Toolbar' for the 'P List' by selecting 'P List Toolbar' under the 'View' menu.

'Toolbar'.

Buttons (from the left):
Move down
Moves the selected songs downwards by one row.

Move up
Moves the selected songs upwards by one row.
Move to the top
Moves the selected songs to the top of the list.

X
Removes the selected songs from the list. You can also press backspace on your keyboard to remove songs.

Shuffle
Randomizes the order of the songs. If less than two songs are selected, the entire list is shuffled. If two or more songs are selected, only the selected songs are shuffled.

Add
Shows a menu for adding items to the list.

Insert Pause Playlist Track
A 'Pause Playlist' track is inserted to the list. This track is an action. When the 'Pause Playlist' track is the second item on the list, playback will be stopped as soon as the first song on the list has been played.

Playback will be stopped after the song 'Battle With Invisible Monster', because 'Pause Playlist' is the second item on the list


'Pause Playlist' track enables the 'Pause After This' button of the 'Playback Ctrl' device.

To resume playback after a 'Pause Playlist' track, press the 'Start' button from the 'Playback Ctrl' device.
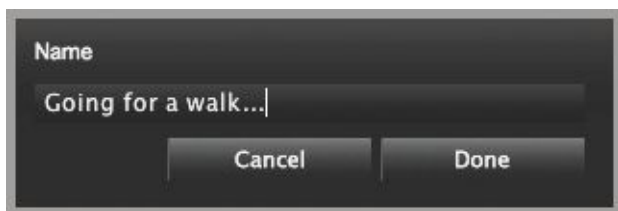
Insert Silent Track...
If you wish to have silence between songs, you may insert a 'Silent Track' to the playlist. 'Silent Track' works just like regular songs but it is silent. The duration of the silent track can be set to up to 99 minutes.
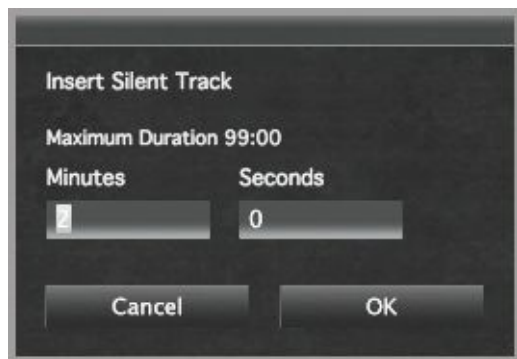
Insert Text...

A window opens where you can type some text.

An item is inserted to the 'P List' with that text as a song title. This has no effect on audio playback. You may insert a text track to the playlist for any purposes if needed.

Requests
Occasionally you might want to play some songs at a later time. Instead of placing the songs to the end of the 'P List', you can place the songs to the 'Requests' list and then move the songs to the 'P List' when needed. When 'Requests' is shown the 'P List' is hidden.

To have the 'Requests' available, select 'P List Requests' under the 'View' menu.

Two buttons appear for selecting which list you wish to see.

To move songs that have been selected from the 'P List' to the 'Requests' or vice versa, press the 'Move' button.

'Move' button.

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You can also select songs and drag the songs to above the 'P List' and 'Requests' buttons to change the list while the songs are being dragged.

Devices

Different features of Disco XT are available as separate "devices".

You can select which devices you wish to show from the tab editing window.
You may also select devices from the 'Devices' menu.

'Collapsible Devices' option adds a small bar above each device. The bar shows the name of the device and has a triangle that allows to hide/show the device, leaving only the device bar visible.


On the right side of a device bar are up and down arrows. You may press these to change the order of the devices, moving a device upwards or downwards.


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Current Song

The first part of the 'Current Song' (from the left) shows information about the currently playing song.

- Title of the currently playing song.
- Artist of the currently playing song.
- How long the song has been playing.
- How long until the next song starts to play.
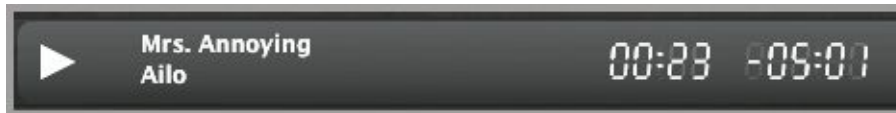
Title and artist of the currently playing song is shown on the 'Current Song'. How long the song has been playing and how long until the upcoming song starts to play is also shown.

The second part of shows the title and artist of the upcoming song.
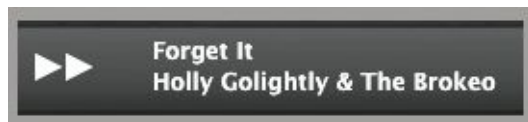
The song 'Forget It' is coming next.

The last part of the 'Current Song' shows (from the left)
- How long you have been playing in Automix mode.
- Estimate on how long it takes to play all the remaining songs on the 'P List'.
- Current clock time.

The time happens to be 10.55 and the playlist has been playing for 17 seconds. The playlist duration is only 7 minutes 58 seconds.

BPM Tap Counter

BPM values identify the tempo of the song (slow or fast). Higher BPM values means faster tempo and lower BPM values means slower tempo.

Disco XT has automatic BPM detection feature that can detect BPM values for songs. The automatic BPM detection is quite accurate for songs with clear and noticeable rhythm, such as trance, dance, rap, r'n'b, drum&bass etc. For songs with more noise, such as rock, or with less noticeable rhythm the detector is less accurate. The automatic BPM detector can also show the BPM values as halved or doubled: Showing 160 BPM song as 80 BPM.

You may detect BPM values manually by tapping along a beat of a song.

Select 'BPM Tap Counter' under 'Devices' menu to show the counter.
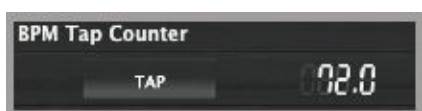
Press the 'TAP' button several times and a BPM value will appear next to it. You should tap at least 10 times to reduce inaccuracy.

If you wish to adjust the BPM value, you may press down on the BPM value and move the mouse upwards or downwards.

To save the BPM value, click button of your song source. 'Left' is for the deck on the left side and 'Right' is for the deck on the right side. 'List' saves the BPM to the item you are prelistening to (Music List or P List).

If you wish to use the keyboard for tapping instead of mouse click, It is disabled by default. You may create a keyboard shortcut for the tapping by selecting 'Keyboard Controlling...' under 'Edit' menu and selecting the item 'Tap BPM'.

BPM tap counter resets automatically if you do not tap for 1 and half seconds.

Decks

Decks are used for playing music songs. Disco XT has two identical decks. The purpose of having two decks instead of one is to allow transitions and for preparing. During a transition, two songs play at the same time for a while. Deck has a waveform display that shows the loaded song visually. The starting time of a song can be adjusted to remove something from the beginning of a song for better continuous mixing. Song rate can be adjusted, for playing the song slower or faster.

Loading songs to the Decks

If you are mixing in automix mode, songs are automatically loaded to the decks from the automation playlist. In manual mixing mode, you need to load songs to the decks by hand.

You can load a song to a deck...
  – By right clicking a song in the 'Music List'.
  – By dragging a song from the 'Music List' to above a deck.
  – By using a keyboard shortcut.

Song has been right clicked in a song list and 'Load to the Left Deck' is being selected.
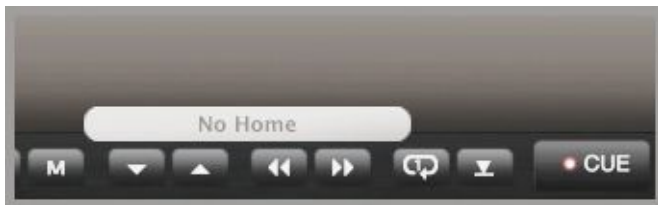
The song 'No Home' is being dragged above a deck.

'Keyboard Shortcuts' under 'Edit' menu shows shortcuts for 'Left Deck: Load'.

By default, the 'Auto' tab of Disco XT uses 'Wave Decks' option instead of 'Decks'. This is a smaller size version of the audio playing decks. It is missing some features, such as the jog wheel and the rate slider but takes less screen space. Wave Deck consists of the devices Small Deck Top, Waveform and Small Deck Bottom.

If you wish to use the normal 'Decks' view, you can edit the tab in the tab editor (Edit Menu > Tabs...) and remove 'Small Decks Top' and 'Small Decks Bottom' (or 'wave decks') and instead use the 'Decks' device.
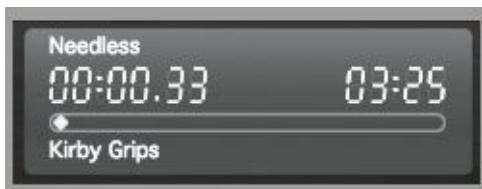

'Small Decks' is being used instead of 'Decks'.

Pressing the Cue button stops playing the song and sets it to the start of the song. When the song has been set to the start time, the Cue button has red light on.

A song has been 'Cued'.

Starting time of song might not be at the beginning of file at 0.0 seconds:
See Transition editor: start detection threshold adjustment.

The starting time of a song has been set to 0 seconds and 33ms automatically.


Waveform display shows the beginning of a file at 0.0 seconds...

...and the same song with starting time set by 'Trim Starts'.

Right clicking the cue button sets the song to the start time but starts playing the song as well. This is called 'Cue Play'.

Play/Pause button starts or stops playing the song. When a song is not playing and has not been set to the start time, the Cue button has no red light and the play button green light blinks.
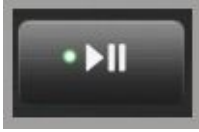
A song is being played.

Right clicking the Play button starts or stops the song using brake feature. Brake gradually increases or decreases the song rate. This is similar to turning an old record player on or off.

Setting starting time manually

The starting time set by 'Trim Starts' might not be where you wish to start the song from. As you are creating a continuous mix from several songs with Disco XT, you might wish to skip something from the beginning of a song such as a long intro. This can improve the flow from one song to another.

When the Cue button has red light on you can adjust the starting time with the waveform display. Press on the waveform display, hold the mouse down and start moving left or right. When you do this the deck plays short (1/10 second) segment of the song at the current position. Now if you press the Cue button you will notice that the starting time of the song has been changed and you are able to return to that position again with the Cue button. The song start time is not changed if the Cue button has no red light while you adjust song position.

You may also use the 'Jog Wheel' of the deck for adjusting the starting time: click on the jog wheel and drag the hand hole clockwise (for forward) or counter clockwise (for backwards)..

Jog wheel can be used for setting a start time for a song.

You can also set starting time for a song with the 'Save Start Time' button. Start playing a song and when a position you wish to start the song from is reached, press the 'Save Start Time' button. You can then use the 'Cue' button to return to that position.
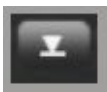
'Save Start Time' button.

You can zoom out or zoom in the waveform display with the zoom buttons.

'Zoom In' button at the top and 'Zoom Out' button below it.

The zoom has two modes 'zoomed out' and 'zoomed in'. By right-clicking 'zoom in' or 'zoom out' button you may set the zoom amount.

Setting 'Zoom Out' amount by right-clicking.

For moving forwards or backwards quickly, press the 'Fast Forward' and 'Rewind' buttons.

'Fast Forward' and 'Rewind' buttons.

To replay a same song press the 'Repeat One' button. When 'Repeat One' is enabled and the song reaches the end of the file, it will return to the starting time and plays again. The song is repeated until the 'Repeat One' mode is turned off.

'Repeat One' button.

'Repeat One' mode has been enabled and is shown in the display of a deck.

Both decks have a letter A or B visible. This indicates whether it is Deck A or Deck B.

A letter is for Deck A.

Rate control can be used if you wish to play song with slower or faster rate than the original.

There is a numeric value in the display with a down arrow. This is a popup menu. Click on it to select the range of the rate adjustment.

Rate adjustment is being changed to + / - 50 %.

Rate control has no effect when the slider is at middle: the song plays at original rate.

Slider is at middle.

Moving the slider upward decreases rate of the song.
Moving the slider downwards increases the rate of the song.

Rate slider has been moved upwards and the song plays at slower rate.

Rate slider has been moved downwards and the song plays at faster rate.

You can reset the slider back to the middle by right clicking on it.

'Match' button sets the rate of a song to match the BPM of song loaded to the other deck.

'Match' button

The rate of the other deck is not affected.

Both songs need to have BPM value for the 'Match' to work.

The left deck plays at 83 BPM and the right deck at 84 BPM.
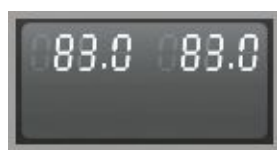
'Match' button of the right deck has been pressed and the BPM values now match. The rate of the right deck was decreases by -1.2 %.

'Original' button sets the rate of a song to the original rate +/- 0 %.

'Original' button.

Up/Down button can be used to adjust the rate slider by +/- 0.1.

Up/Down buttons.

Bend buttons (- +) adjust song rate temporarily. Pressing – button decreases the song rate by 4% while the button is held down. Pressing + button increases the song rate by 4% while the button is held down. When the button is released, this 4% rate change is turned off. The bend buttons can used for beatmixing: song plays faster or slower for a while, until the beats are synchronized, and the button is then released.

Bend Buttons.

Dual Adjust

Disco XT has two Dual Adjust devices: Dual Adjust 1 and Dual Adjust 2. Each Dual Adjust has three adjustment pads. This allows to store up to six pad settings.

A Dual Adjust pad allows to adjust two parameters at the same time. First parameter X is adjusted horizontally (left and right) and the second parameter Y is adjusted vertically (up and down).

Dual Adjust pad.

The parameter to adjust with X/Y can be changed to be any of controls available from the decks, mixer and effects. Dual Adjust allows to adjust two parameters at the same time, giving more possibilities: You may create transition from one song to another by using the filters, or you can lower down song rate and then crossfade to another song, or you can apply an effect such as reverb to a song and then crossfade to another song....

The LR switch selects whether the parameter is for the deck on the left side (L) or for the deck on the right side (R).

X Y parameter selection and L R switch.

Effects

Effect chain is a series of effects. The original audio signal is sent to the first effect in the chain, the output from the first effect is then to the second effect in the chain and so forth. Effect chains can be edited. You can select which effects you wish to use and you may use one effect type more than once in a single chain. Each effect has parameters to adjust the sound of the effect.

Disco XT has effect chains for the following sources: for decks (2), for all audio output (master), for microphone and for sampler.

Each effect source has three slots: 1, 2, 3. This allows to have up to three chains for each source.

When editing a tab, you have three effect devices available: Effects 1, Effects 2 and Effects 3. This allows you to have up to three different effect chains visible in a single tab. These effect devices (1-3) can be used to view any of the effect chains.

Select the source of effects from the popup menu on the left side.
Select the slot with slot buttons 1, 2 and 3.

Decks = Effects for the audio players, effects for the left deck are on the left side.
Master = Effects for all audio output: including both decks, the microphone and the sampler.
Mic = Effects for microphone input
Sampler = Effects for the sampler.

'Decks' is selected and the effect chains for decks are shown. First slot (1) is selected.

Sampler Slot 3
The slot 3 of the 'Sampler' source is not a single effect chain, it shows the effect chain for the currently selected sample. If you select slot 3 for the Sampler source, you can add different effects to each sample loaded. The slots 1 and 2 of the sampler instead apply the effects to all samples being played.

'Effects' device has a field that shows a name for the effect setup. Double click this field to enter a name for the effects setup.
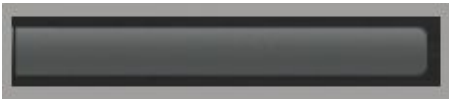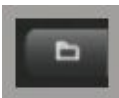

'Name' field.

'Name' field has been double clicked and a new name has been typed.

Press 'Save' button to save an effect setup. The effect setup is saved with the name given in the name field.
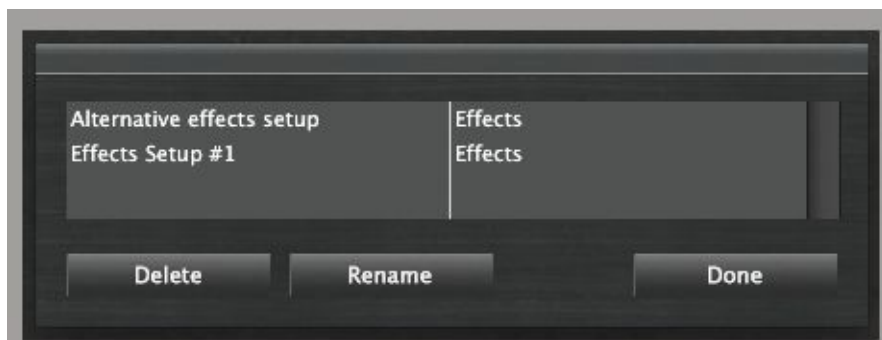

'Save' button.

Press 'Load' button to load a previously saved effect setup.

'Load' button.

Effect setup includes effects you have in the current effect chain and parameters of the effects.

You can remove or rename effects you have saved by selecting 'Effect Presets...' under the 'Edit' menu.

'Effect Presets' window.

Press 'Chain' button to add effects to the currently selected effect chain, or to remove effects from it.

'Chain' button.

This will open up the Effect Chain editing window. The window has two lists 'Available' and 'Chain'.

'Available' lists effects that you can add to the effect chain.

'Available' list.

Effect types included:
Chorus / Flanger - a modulating effect (using a very short delay).
Delay - echoing effect.
EQ - adjusts high, middle or low bands.
Filter - cuts out high or low frequencies.
Reverb - simulates how the music would sound in a large hall (for example).

'Chain' lists effects that you are using in your effect chain and the order in which the effects are processed. The original audio signal is sent to the first item on the list.
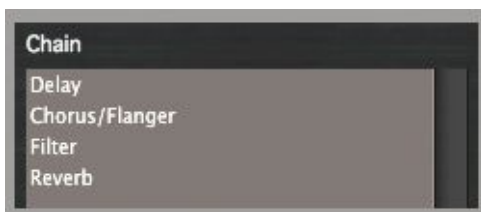
'Chain' list.

Press 'Add to Chain' button to add an effect from the 'Available' list to the 'Effects' list. You can also drag and drop an effect from the 'Available' list to the 'Chain' list.

'Add to Chain' button.

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Press 'Remove from Chain' button to remove an effect from the 'Chain List'.

'Remove from Chain' button.

Two effects have been added to the chain: Chorus / Flanger and Reverb.

The effects are now shown in the main window of Disco XT. The first item 'Chorus / Flanger' is at the left side and 'Reverb' is at the right side. Effects in the chain are stacked this way.

Each effect has a switch for turning the effect ON or OFF. When an effect is turned OFF it is not processed.

'On / OFF switch' of an effect.

Each effect has a field for the name of the effect setup and save / load buttons. These work the same way as in the 'Effects' device on the top but only affect the selected effect rather than all effects in the chain.

Effect Parameters

Chorus / Flanger

Time
The effect adds the original audio signal with a small delay to the effected output. This sets the delay time.

Feedback
How much the time delayed signal is fed back to the effect. Feedback makes the effect last longer.

Rate
LFO stands for low frequency oscillator. The LFO alters the delay time with repeating cycles. Rate adjusts the duration of each cycle.

Depth
How much the delay time is altered by the LFO.

Pan
Adjusts the amount of stereo LFO (between left and right). At minimum value there is no panning.

Pan Rate
LFO stands for low frequency oscillator. The LFO alters between left and right channels with repeating cycles. Pan Rate adjusts the duration of each cycle.

High
Cuts out low frequencies from the effect. The amount sets the minimum frequency to pass.

Dry/Wet
Sets the amount of effect. When the knob is turned to minimum (no light) no effect is applied.

EQ

Lo Mid Hi
This sets the type of equalizer used.
LO = Lowshelv EQ for lower frequencies (bass).
MID = Peak EQ for any frequency bands.
HI = Hishelv EQ for higher frequencies (treble).

Freq
Sets the center frequency for the effect. From 20Hz to 16kHz.

Q
Sets the Q value for the EQ. Higher Q values narrow down the EQ making it affect smaller portion of frequencies surrounding the EQ center.

Gain
When the gain is to the right side, the frequencies are amplified. When the gain is to the left side, the frequencies are attenuated.

The EQ has a display that shows the equalizer curve visually from 20Hz to 16kHz.

Filter
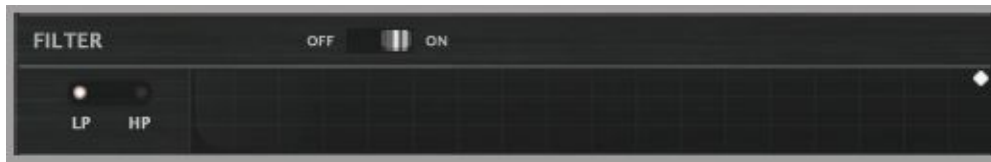
LP HP

This sets the type of filter used.

LP = Lowpass filter. Lowpass filter lets lower frequencies pass while higher frequencies are cut out.

HP = Highpass filter. Highpass filter lets higher frequencies pass while lower frequencies are cut out.

X Y

The filter has an area with a diamond symbol. Move your mouse in this area to adjust the X and Y parameters. X is horizontal movement (from left to right) and Y is vertical (from top to bottom). X adjusts filter cutoff frequency and Y adjusts filter resonance. Filter Resonance amplifies signals close to the cutoff frequency, creating a sweeping sound when adjusting the cutoff frequency at the same time.

Delay

Tap
Press this button three or more times and the time parameter value will be set to the tempo of your tapping.

Time
The effect adds the original audio signal with delay to the effected output. This sets the delay time. Delay time can be from a fraction of a second to up to a few seconds.

Decay
For long time the produced delay is repeated.

Pan
Adjusts the amount of stereo LFO (between left and right). At minimum value there is no panning.

Pan Rate
LFO stands for low frequency oscillator. The LFO alters between left and right channels with repeating cycles. Pan Rate adjusts the duration of each cycle.

High
Cuts out low frequencies from the effect. The amount sets the minimum frequency to pass.

Dry/Wet
Sets the amount of effect. When the knob is turned to minimum (no light) no effect is applied.

If the delay effect has been added to the 'Decks' sources, additional tempo buttons are available. Pressing a tempo buttons sets the time parameter to match the song BPM and the musical note duration.

1/16 is shortest and 1/2 is longest note duration available.

Reverb

Room
Small, medium or large room.

Size
More precise room size adjustment.

Width
Adjusts reverb duration (along with size).

Damp
Reduces the duration of the reverbation tail gradually.

Predelay
Add a delay before the reverb is heard. From 0 seconds to up to 0.1 seconds.

Freeze
Current reverbation is repeated / freezed, until the freeze button is pressed again. You should try pausing the music after freezing the reverb to hear it.

Lo
Amount of low frequency reverbation.

Mid
Amount of middle frequency reverbation

Hi
Amount of high frequency reverbation.

Dry/Wet
Sets the amount of effect. When the knob is turned to minimum (no light) no effect is applied.

Loop

The loop device allows to loop a short part of a song loaded to a deck. You first set the beginning of the loop and then end of the loop. When the player reaches the end of the loop it jumps back to the beginning of the loop.

To set the beginning of the loop, click 'In' button and the button lights up.

To set the end of the loop, click 'Out' button and the button lights up.
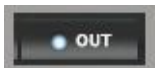
The active loop is shown in the waveform. The loop end is shown as dark.

To exit the loop, click 'Out' button again and the song returns to normal playback.

When a loop is active, you may shift it to the left or to the right (backwards or forwards) with the shift buttons.

Shift left/right buttons.

When a loop is active, you may halve or double the length of the loop with the loop halve/double buttons.

Loop halve/double buttons.

Loops can be set to automatically sync to the BPM of the song. This feature can be enabled and disabled under 'Mix' menu.

Playback Ctrl

Mixing mode is set by selecting one of these:
MAN = Manual mixing.
SEMI = Semi Automated Mixing.
AUTO = Automated Mixing (Automix).

Working with automated mixing mode
Songs can be mixed to a continuous stream automatically. Disco XT has a playlist 'P List' for automated mixing.

Add two or more songs to P List. The first and second song from the P List are automatically loaded to the audio decks.

Press 'Start' button and Disco XT starts playing the first song on the P List.

'Start' button.

The 'Start' button now changes to 'Stop'. If you press it again, playback is stopped and the currently playing song is set back to the start of the song.

'Stop' button.

If you wish to pause playback without setting the currently playing song to the start of the song, press the 'Pause' button instead.
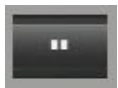
'Pause' button.

If you wish to stop playback after the current song has been played, press the 'Pause After This' button. You can then start the P List again with the 'Start' button. When 'Pause after This' button is enabled it has a light.
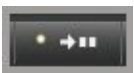
'Pause After This' button has been enabled.

In Automix mode, Disco XT transitions from one song to another automatically. You can change the transition type used for the transition. Click on the 'Transition Type' display to select another transition type.

'Transition Type' display.
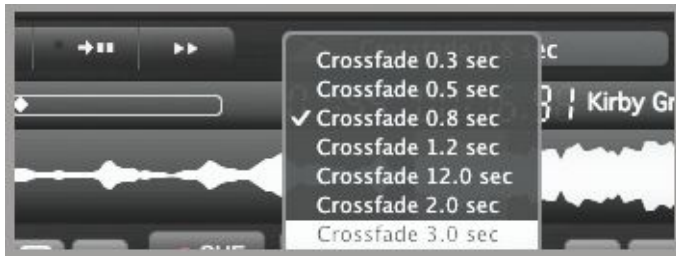
Transition type is being changed to 'Crossfade 3.0 sec'.

If you wish to move to the next song in the P List before the currently playing song has been finished, press 'Move to Next' button. The song is changed and transitioned instantly.
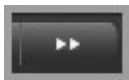
'Move to Next' button.

The 'Move to Next' button does not require automated mixing mode to be enabled. It can be used in manual and semi modes as well.

Working with semi automated mixing mode
This mode also uses the P List. Songs are loaded from the P List to the decks automatically and played song are removed from the P List. However, in semi mode songs are not transitioned automatically at all. You do the transition from one song to another yourself or using the 'Move to Next' button.

Working with manual mixing mode
Songs can also be transitioned manually. When mixing manually you use your mouse or your keyboard to adjust the crossfader of the Disco XT mixer. For manual mixing, Disco XT has limited support for hardware controllers. With manual mixing mode, it is not required to use the 'P List' at all because songs are not automatically loaded to the decks.

Microphone

You can have microphone input sent to the audio output of disco XT. Press the 'Mic' button to turn on the microphone.

'Mic' button.

If you wish to reduce music playback levels while you speak to your microphone, press the 'Talkover' button.
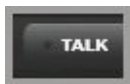
'Talkover' button.

A knob is available to adjust the microphone output level.

If you always wish to have both 'Mic' and 'Talkover' enabled at the same time, you may link the buttons under 'Preferences'. Select 'Preferences' under 'Disco XT' menu. Select preferences page 'Options' and check the box 'Link Mic and Talkover'

'Link Mic and Talkover' is not enabled by default.

You can choose microphone audio device you wish to use in Disco XT Preferences.

A popup menu 'Microphone Input' is shown on the 'Audio' preferences page. Select your device from the popup menu.

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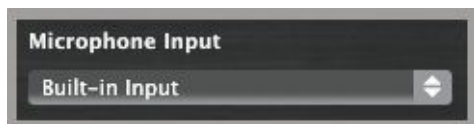
Recording Audio Output

Press 'Record' button to start recording audio output of Disco XT. It will wait until there is audio or you may press the 'Record' button once more and it starts to record.
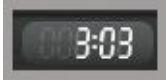
When Disco XT is recording a timer will increase showing how many minutes and seconds have been recorded.

Recording time is limited to a maximum of 6 hours.

Press 'Record' button again to stop recording. Recorded audio opens in an editor window.

Recording is normalized automatically. (scaling gain to loudest value).

Editor window allows to:
- Set fade-in for the first track (optional).
- Adjust starting time.
- Adjust ending time.
- Save as a single file or split to multiple tracks.
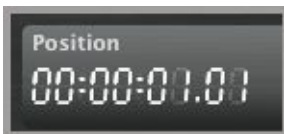
Starting time for the current track is shown under 'Position'.
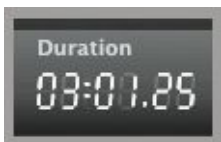
Duration of the current track is shown under 'Duration'.
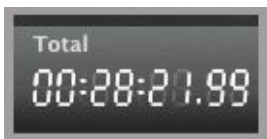
Duration of all tracks together is shown under 'Total'.
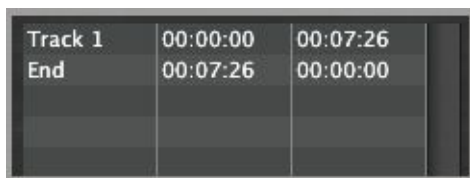
Timeline of the entire recorded audio is shown at the top of the editor. Track starts are shown as lines in the timeline.

Single audio file
If you wish to save the recorded audio as a single file, select 'Single File' from menu button. Having single file as default can be enabled in preferences.
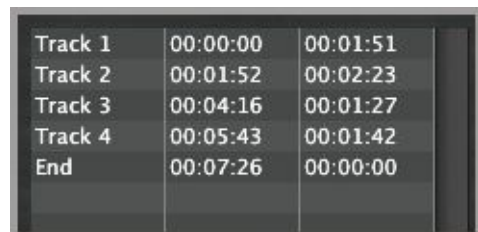
Or Automatic track markers
Select 'Reset to Multiple Files' from menu button to use automatic track markers.

| Track 1 | 00:00:00 | 00:07:26 |
| End | 00:07:26 | 00:00:00 |

'Track 1' contains the entire recording.

Track 1	00:00:00	00:01:51
Track 2	00:01:52	00:02:23
Track 3	00:04:16	00:01:27
Track 4	00:05:43	00:01:42
End	00:07:26	00:00:00

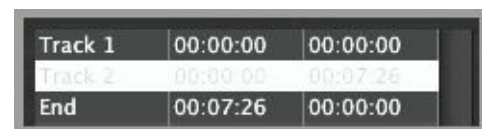The recording has been split to 4 tracks automatically.

Automatic track marker threshold may be adjusted in preferences.

Custom tracks (multiple audio files)
If you do not wish to use automatic track markers and wish to have more than one track, select 'Single File'. You may then add new tracks to the track list.

Select 'Add Track Marker' to add a new track to the track list.

Track 2' appears to the track list.

Track 1	00:00:00	00:00:00
Track 2	00:00:00	00:07:26
End	00:07:26	00:00:00

Now you need to set starting time for it. Click on the timeline at the top of the editor or start playing the recording or use the forward button to find the start time for 'Track 2'.

'Backward' and 'Forward' buttons.

Press 'Save Start Time' button when you have found a position where you wish it to start from.

'Save Start Time' button.

To adjust the time precisely, press 'Cue' button and then drag waveform display to adjust the starting time.

A track has been cued when the 'Cue' button has a red light.

To create another track, select 'Add Track Marker'.

Adjusting beginning of recording
Select 'Track 1' from the track list and set a start time for it the same way as previously described for 'Track 2'.

Adjusting end time
Select 'End' track from the track list and set a start time for it the same way as previously described.

Setting fade-in
Fade-in means that the first track starts from silence and fades in gradually.

Select 'Track 1' from the track list.

'Track 1' is selected from the track list.

Adjust the 'Fade-In' knob. You can set the fade-in from 0.0 (no fade-in) to up to 10 seconds. You can prelisten the fade-in by starting to play the track from the beginning. The fade-in is also shown as a change in the waveform display.

'Fade-in' knob.

To place a text in a field to all tracks, press 'Copy to All Tracks' button at the right side of a field. (Mac Only).

To place track numbers to title fields automatically, select "Track Numbers in Titles'. (Select again to remove).

Track numbers have been placed to the title fields automatically.

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Saving the recording
Select file format from 'Format' popup.

AIFF and WAVE formats are uncompressed.
AIFF file is limited to a maximum of 3 hours 14 minutes.
AAC format takes least disk space (about 1/10).

If you selected AAC format you may also set quality bit rate. Default is 160 kbps which is of good quality.

On Windows only 'WAVE' format is available.

If you wish to have the recorded audio file(s) available in iTunes automatically, press the 'Add to iTunes' button. The audio files are saved to "username > music > Disco XT" location and a new playlist is created to iTunes that contains the audio files.

'Add to iTunes' option is not available on Windows.

Press 'Save As...' to select a location from your computer where you wish to save the audio file(s). If there are several tracks a folder will be created to contain the files.

Recording preferences
To change the recording preferences of Disco XT, select 'Preferences' under 'Disco XT' menu and select the page 'Recording'.

Main Adjustrols

Main Adjustrols has controls that affect all audio output of Disco XT.

At the left side is the compressor. Compressor is a dynamics processor that makes louder sections quieter while keeping quieter sections unaffected. This reduces the output volume differences in the audio output and increases overall audio loudness.

Threshold
At maximum (full light) the compressor has less effect. At minimum (no light) the compressor has more effect. The threshold is shown as dB when adjusting. Audio sections that are louder than the set threshold are attenuated.

Ratio
At maximum (full light) the compressor has less effect. At minimum (no light) the compressor has more effect.

Attack
When audio output has a louder section, this sets how long it takes for the loudness to be reduced.

Release
When audio output has a quieter section, this sets how long it takes for the previously reduced loudness to return to normal.

Gain
The compressor compresses the audio output downwards, making it quieter. Use the Gain knob to amplify the compressed audio output.

The compressor has a "reduction" meter. This shows how much and how often the audio output loudness is reduced (compressed).
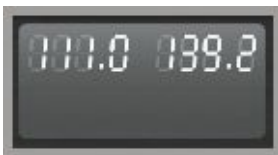
Beats Per Minute (BPM) values for the audio decks are shown.

Low (bass), middle and high (treble) EQs are available.

75

Headphone level knob adjusts the loudness of headphone listening.
The master (speaker) output can be directed to the headphones. Mix knob adjusts the amount of master output in the headphone output.


Headphone level and mix level knobs.

Limiter is similar to the compressor but has no control options. It reduces loud sections in the audio output, preventing distortion if audio output rises suddenly. The limiter has a 'reduction' meter that rises when audio output is limited. You may reduce the amount of limiting, by decreasing audio output volume with the master level slider. By watching the 'reduction' meter, you should adjust the amount of limiting so that the 'reduction' meter does not go too high too often.

Limiter has been enabled.
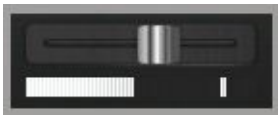
'Master level' slider and level meter.

Mixer

The mixer has three sections: For the left deck, for the right deck and for all audio output (master output).

Deck controls
Deck filter can be set to either LP or HP mode. In Lowpass (LP) filter mode, lower frequencies are passed and higher frequencies are cut out. In Highpass (HP) filter mode, higher frequencies are passed and lower frequencies are cut out.

Filter slider adjusts the cut out frequency.
Filter Q knob adjusts the Q (resonance). Higher Q values amplify the audio signal at the cutoff frequency.

If 'CF' option is selected, the filter is connected to the crossfader of the mixer. 'CF' mode is not available when you are in Automix mode.

Filter slider at the left. Filter Q knob. LP and HP switches and CF switch. Gain knob.

Gain knob has a range from 0% to 200%. By default it is at 100%. You may use the gain knob to amplify audio by 100%, or to decrease audio by 100%.

Level slider adjusts the audio level of the deck. Range is from 0% to 100%. Disco XT has automatic gain control option and you might not need the level slider at all.

High (Treble), middle and Low (Bass) frequency bands can be adjusted.

Hi, Mid and Low EQs and level slider.

'Automatic Gain Control' has been enabled under the 'Mix' menu.

'Headphone' button sends the audio from a deck to the headphone output. When the headphone button has a red light, headphone listening is enabled. If you are mixing in Automix mode, the headphone button is automatically enabled for the upcoming song and disabled for the currently playing song.

'Headphone' button.

'Brake' button starts or stops a deck gradually similar to an old record player.

'Brake' button.

'Crossfader' adjusts the levels of both decks. When the 'crossfader' is all the way to the left, you can only hear the left deck. When the 'crossfader' is all the way to the right, you can only hear the right deck. At the middle, both decks play at full level. It isn't necessary to use the crossfader at all when mixing in Automix mode.

'Crossfader'.

Beats per minute (BPM) values for the decks are shown on the mixer display.
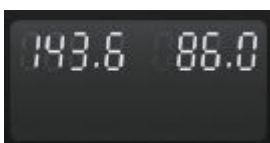
'BPM' values.

'Pan A' adjusts panning of the left deck.
'Pan B' adjusts panning of the right deck.

When a pan knob is at the middle, audio is played from both speakers (left and right) equally. If the knob is more to the right, the left speaker is attenuated. If the knob is more to the left, the right speaker is attenuated.

'Pan A' and 'Pan B' knobs.

Headphone level knob adjusts the loudness of headphone listening.
The master (speaker) output can be directed to the headphones. Mix knob adjusts the amount of master output in the headphone output.

'Headphone level' and 'Mix level' knobs.

Limiter reduces loud sections in the audio output, preventing distortion if audio output rises suddenly. The limiter has a 'reduction' meter that rises when audio output is limited. You may reduce the amount of limiting by decreasing audio output volume with the 'Master level' slider. By watching the 'reduction' meter, you should adjust the amount of limiting so that the 'reduction' meter does not go too high too often.

'Limiter' has been enabled.

'Master level' slider and level meter.

Offset Play

This device allows to start playback of a song precisely relative to position of another song that is already playing. This can be used for more accurate mixing and for beat matching.

Unlike the Transition Editor device that is similar to Offset Play, with Offset Play the song only starts to play and no transition (fade in / fade out) is made. The transition needs to be made by the user by using the crossfader or other controls (such as the filters or Dual Adjust).

Mixing mode needs to be set to Manual (MAN) or SEMI in the Playback Ctrl device.
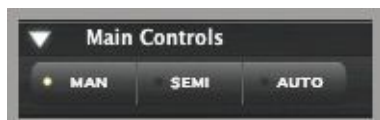
The currently playing song appears to the top waveform and the song you wish to play after it appears to the bottom waveform.
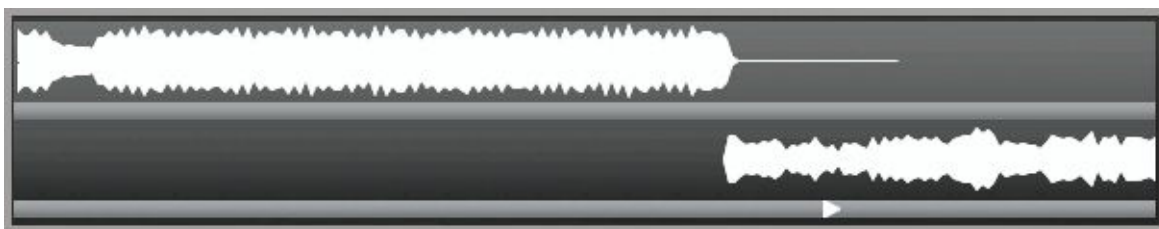
Offset Play device has no scrollbar to change the view position of the waveforms. You can scroll the waveforms by pressing the top waveform and moving the mouse to the left or to the right.

You can adjust the offset / starting time of the second song by pressing the bottom waveform and moving the mouse to the left or to the right.

You can prelisten the offset in advance with headphones. Press the 'Prelisten' button to start prelistening. The position where the prelistening starts from can be adjusted by clicking below the bottom waveform where a play icon > appears.

'Prelisten' button.

For the offset play to be active you need to press the 'Activate' button so that it lights up. When the offset play is active, a counter appears to the display indicating how long until the offset is reached and the song starts to play.

Offset play has been activated.

Counter indicates remaining time until the offset is reached.

Sampler

While the decks are used to play music songs, the sampler can be used for playing shorter audio samples over the music.

The sampler has eight banks: A, B, C, D, E, F, G, H. Each bank can hold up to 5 samples.

Bank 'A' has been selected.

Loading a sample
Click 'Select' button under the sample player you wish to load a sample to.

'Select' has been clicked.

Click 'Edit' button to show the sample editor.

'Edit' button.

Recording a sample with a microphone
Click the 'Mic' button to start recording from a microphone. The recorded audio starts to show in the waveform display and a counter increases showing the duration of the recording.

'Mic' button has a red light when audio is being recorded from the microphone.

Recording from a microphone.

Click the 'Mic' button again to stop recording and the recorded audio opens up for editing.

Taking a sample from an existing audio file

Click the 'Open' button and select an audio file from your computer. You can also drag and drop an audio file from your Disco XT music library over the editor.

'Open' button.
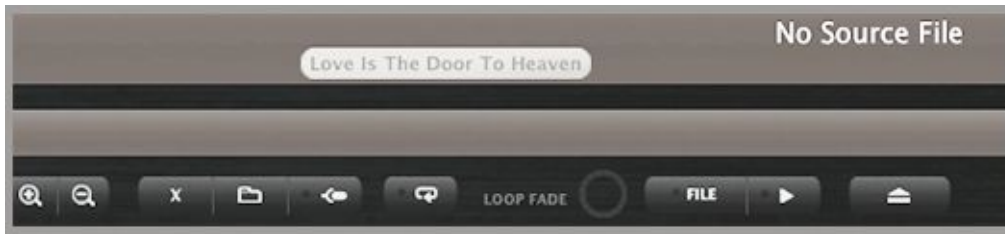
Audio file is being dragged over the editor.

Loading an audio file to the editor can take a few seconds, depending on the duration of the audio file. When an audio file is being loaded a progress bar is shown.

Setting sample start and length

You might not wish to use the entire audio file as a sample. Start and length adjustments are used to take a shorter sample from a longer audio file. The start adjustment is on the left side and the length adjustment is on the right side.

Sample start and length adjustments.

Press the adjustment control and move the mouse to the right or to the left to adjust. The start adjustment can also be set by double clicking on the adjustment area.

The editor display shows the start and the length of the sample with minutes, seconds and 1/100 seconds.

To hear the sample with headphones, press 'Prelisten' button.
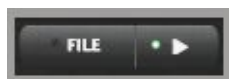
'Prelisten' button.

If you wish to prelisten the entire file select 'File' button. This is useful for finding a good sample from a longer audio files. If 'File' button is not selected the sampler source will only play from the sample start to the sample length.

If you wish the sample to repeat/loop, press 'Loop' button. You may adjust the crossfade of the loop with 'Loop Fade' knob. Loop fade makes the looping smoother as the loop is crossfaded. Loop fade reduces the length of the loop as part of the loop is played over with crossfade.
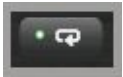
Sample can be started from silence and faded in gradually with the 'Fade In' knob.
Sample can be faded to silence before the sample reaches end with the 'Fade Out' option.
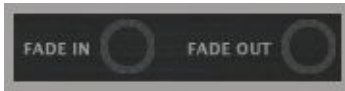
'Fade In' and 'Fade Out' knobs.

When you are done editing the sample in the editor, click 'Load' button to load the sample to the sampler player.
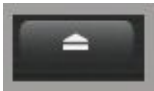
'Load' button.

A sample has been loaded to a sample player.

You may rename a sample by double clicking the sample name in the sample player.

If you wish to remove a sample from a sample player, press the 'X' button to clear the editor and then press the 'Load' button and the sample player is cleared.

'X' button clears the editor.

If you wish to load another sample from the same sampler source, click 'Copy' button and then select another sample slot and click 'Paste'.

Playing samples

Press 'Play/Pause' button to start playing the sample.
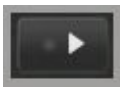
'Play/Pause' button.

Pressing the 'Play/Pause' button again pauses the sample.

Pressing 'Stop' button stops playing the sample and sets the sample playback position to the start of the sample.

'Stop' button.

Samples can also be played using the keyboard.

You can change position of a sample by clicking 'Timeline'.

'Timeline'.

'Gain' knob adjusts the loudness of the sample.

'Gain' knob.

Press 'Headphones' button to play samples from the headphones. If the 'Headphones' button is not enabled, samples are played from the speakers.

'Headphones' button.

Side chain

Disco XT has a side chain compressor for the sampler. When side chain is activated, music playback volume is reduced while a sample is playing and the sample can be heard more clearly. To activate or disable side chain compressor, press the 'SC' button.
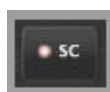
Side chain has been activated.

Sampler Controls

To show up sampler controls, click 'CTRL' button on the sampler.

You may alter the rate of the sample (fast or slow, high or low).

If you wish to play the sample backwards / reverse, press the 'Reverse' button.

Transition Editor

Create a custom transition from one particular song to another. Transition Editor is only available in Automix mode. While songs are being processed the editor will show a progress bar. Processing can take some seconds to finish.

Transition editor has two waveform displays.

The first song (currently playing song) is placed to the top waveform.

Transition editor has no scrollbar to change the view position of the waveforms. You can scroll the waveforms by pressing the top waveform and moving the mouse to the left or to the right.

The top waveform has two rails with diamonds. The top rail diamond sets where to start fading out the currently playing song. Before the diamond, the song plays at full volume. The bottom rail diamond sets the length of the fade. After the bottom rail diamond, the song is inaudible (silent).

The second song on the P List (upcoming song) is placed to the bottom waveform.

You can adjust the offset of the second song by pressing the bottom waveform and moving the mouse to the left or to the right.

The top rail diamond sets the length of fade-in for the song. The fade-in always begins from the start time of the song. If you wish the fade to start at later position, you need to adjust the start time of the song using deck controls.

Both fades have an additional fading point for adjusting the curve of the fade. This fading point can be adjusted by holding the 'Shift' key down while clicking on the waveform.
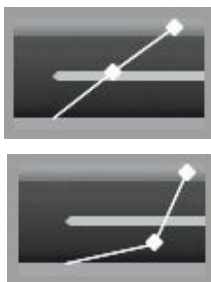
By default the fades alter song volume. The fades can be set to use lowpass or highpass filters instead. Lowpass filtering gradually cuts higher frequencies from the audio. Highpass filtering gradually cuts lower frequencies from the audio. Click 'Fade Type' on the top-left corner of the waveform to change between Volume, Lowpass and Highpass.

You can prelisten the transition in advance with headphones. Press the 'Prelisten' button to start prelistening. Prelistening will stop automatically when the transition has been played through.

'Prelisten' button.

Prelistening can be set to solo mode. In solo mode you either hear the first song or the second song while the other song is muted. Solo mode only affects prelistening.

'Solo Mode' switch.

S/E Control
Adjust start/end detection thresholds.

Affects current transition and any upcoming transitions. Previously edited transitions are not affected.

"Mix menu : Search Transition Offset" option often improves end detection.

When E letter is lid you are adjusting end threshold.

Abort
Transition playback can be aborted by setting to MANUAL mixing mode. (Does not mean prelistening).

Transition Navigator
Transition can be edited for any song on the 'P List'. Press the left and right arrow buttons to navigate between transitions to edit. When navigating transitions, the decks will load up with song of the current transition and mixer parameters will also be editable. This allows to set starting times for songs and adjust tempo, EQs and gain. This does not interrupt main playback as the actual players for first two songs are still available for playback.

If you wish to export songs with transitions to an audio file, click 'Export' button (or select 'Export Audio...' under 'Mix' menu). 'Export' works the same as clicking 'Record' and then 'Start' but 'Export' is faster as the data is processed faster than realtime. Playback is not audible during

exporting. If you need to use additional features such as microphone or sampler during playback of songs then you should play and record the songs in realtime. Songs must not be playing when selecting 'Export' or it will not start.

Created transitions are available at a later time if the songs are saved to a playlist or if the songs stay in the P List. Tempo, EQ and gain settings are also stored. This means that you can add the content of the P List to a playlist in Disco XT and then if you add the songs to the P List at a later time, the same settings are available.

If you add songs to the P List from the library, previously created transitions are not available.

Selecting a transition preset from the 'Playback Ctrl' clears any created transitions from the 'P List'. If you wish to keep transitions that you have already edited and only change a preset of the current transition, right click Transition Editor display to select a preset.
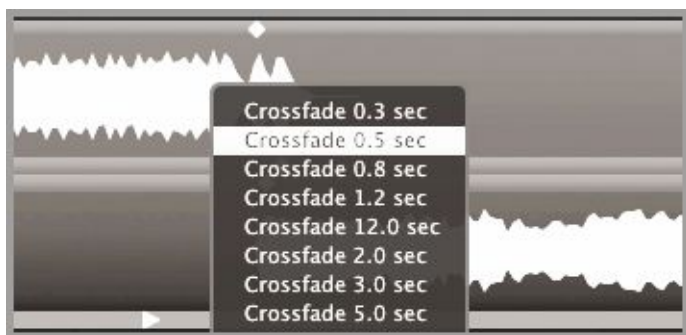
'Remove Played Songs' mode is enabled by default. When enabled, after a song has been played it is removed from the top of the P List. If the mode is disabled, songs will not be removed from the P List but the play-head moves downwards. You can change this under the 'Mix' menu.

If you wish to set the play-head/starting song for the P List when "Remove Played Songs" is disabled, you may right-click a song from the P List and select 'Set Playlist Start'. The playback must be stopped before changing the play-head.

'Remove Played Songs' option is automatically disabled during 'Export'.

Hardware Controller

Hardware controllers are USB connected input devices with physical buttons, knobs and sliders that can be mapped to buttons and controls of Disco XT.

Selecting the device
Your hardware controller must be connected before launching Disco XT.

Select 'Hardware Controller...' under the 'Edit' menu.
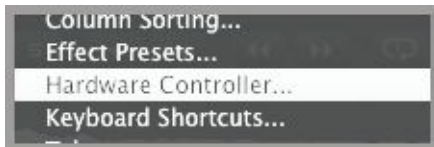
Hardware controller window opens.

There are two device lists.
Input device is the driver that Disco XT uses for receiving commands from your controller.

Output device is the driver that Disco XT uses to send commands to your controller. This allows Disco XT to light up LED lights on the hardware controller. Some controllers might not have a output device driver at all.

Double click a driver to select it. When a driver has been selected, it appears under 'Selected Input' and 'Selected Output' texts.
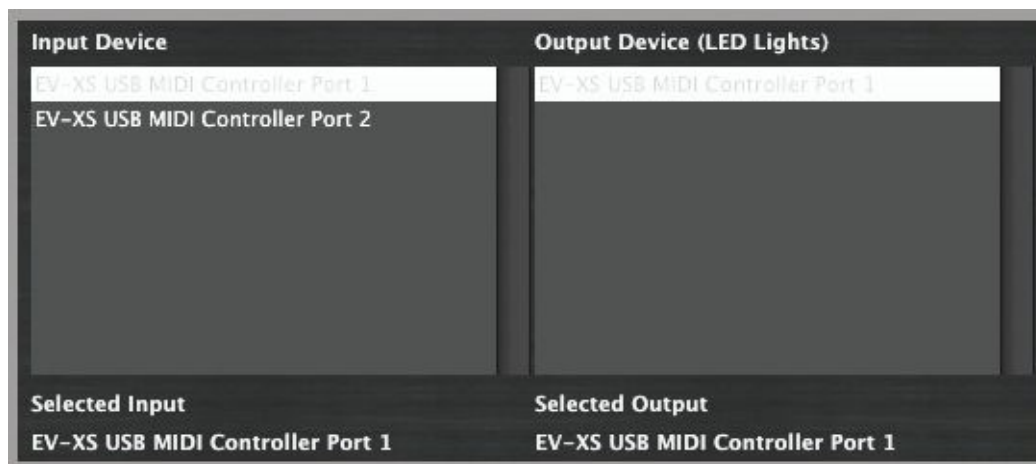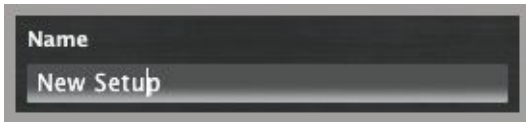
Mapping Controller
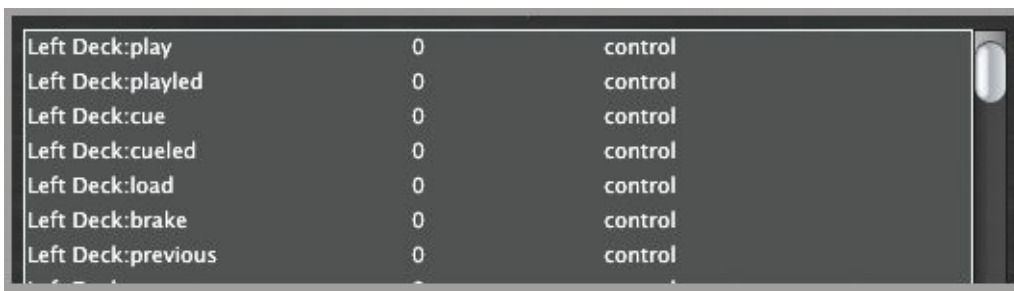
Press 'New' button.
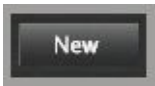
Enter a name for your controller setup to the 'Name' field.
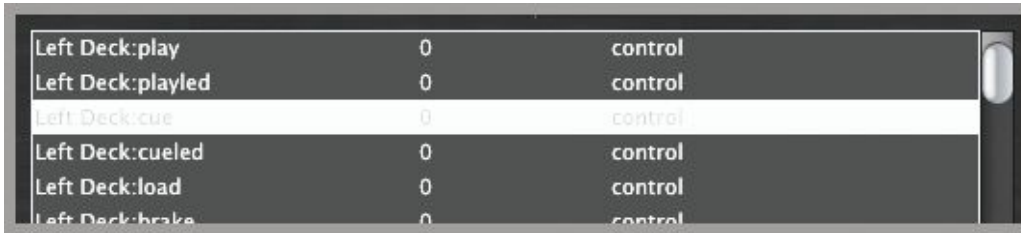
The window lists actions and controls available in Disco XT. Search the list for actions and controls you wish to use, as you might not need all.

Listing actions and controls available for hardware controllers.

Select an item from the list so that it highlights.
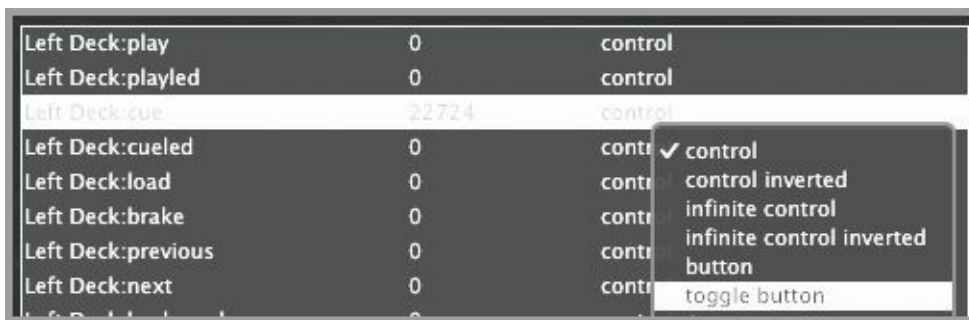
'Left Deck:cue' has been selected.

Now press the button or move the control you wish to assign for the selected action or control. The number '0' for the selected item will then have another value.

Click on the 'control' column of the item and a menu opens.

The menu has the following options:
Control: Select this for knobs and sliders of the controller.
Control Inverted: Same as 'Control' but inverted (top is bottom, bottom is top).
Infinite Control: Select this for knobs that go round freely without stopping at left/right sides.
Infinite Control Inverted.
Button – Select this for buttons that should release when the button is released.
Toggle Button – This should be the right one for most buttons of the controller.
Custom – Described later.

You can light up LED lights on the controller. LED items have 'led' in the item name such as 'Left Deck:cueled'. After selecting a LED item press the 'Set Led' button.

'Set Led' button.

Press 'Next' button to find the correct LED for the action. When a correct LED lights up in the controller Press 'OK'.

Custom Controls

Buttons, knobs and sliders can be used by just selecting the type from the 'Control' column. If your hardware controller has a jog wheel, you will need to use the 'Custom' type option and program the control for Disco XT.

1) Select item 'Left Deck: scrollwaveform' from the list.

2) Check 'Custom Control Type' box.

3) Move the jog wheel clockwise and numerical values between 0 and 127 appear to the 'Sample Input' list. Move the jog wheel counter clockwise and different values appear to the sample list.

The controller sends a different number when you are moving the jog wheel clockwise or counter clockwise.

For example, a device sends the number 65 when the jog wheel is moved clockwise and the number 64 when the jog wheel is moved counter clockwise.

Some hardware controllers can send different numbers depending on how fast you move the jog wheel. For example, another device sends the number 1 when the jog wheel is moved clockwise and the number 2 when the jog wheel is moved clockwise faster and the number 3 when the jog wheel is moved clockwise very fast.

To be able to use the control, you need to enter values to the 'Custom Values' list. If the jog wheel only sends one number for clockwise and one number for counter clockwise, you would enter values for these two numbers in the 'Custom Values' list. -1 for counter clockwise and 1 for clockwise.

1 is a single step, the step size can be adjusted by selecting 'Options' next to the preset name. You can add any values for the jog wheel such as -0.5, 0.5, 2.5 etc.

To enter a value to the 'Custom Values' list, click an number for the list so that the row highlights. Then type a number and it will appear to the list.
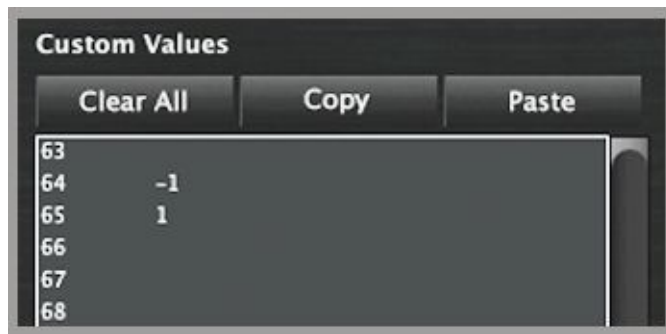
The 'Action' check box should not be checked for jog wheels. When 'Action' is checked any values in the list other than 0 (blank) trigger an action. With the 'Action' checked, you may create a custom control types for song lis up/down navigation.

When you have created a jog wheel control for the Left Deck, press 'Copy' button and then select Right Deck: scrollwaveform' and press 'Paste' button. You will also need to move the right side jog wheel slightly so that Disco XT knows the control.
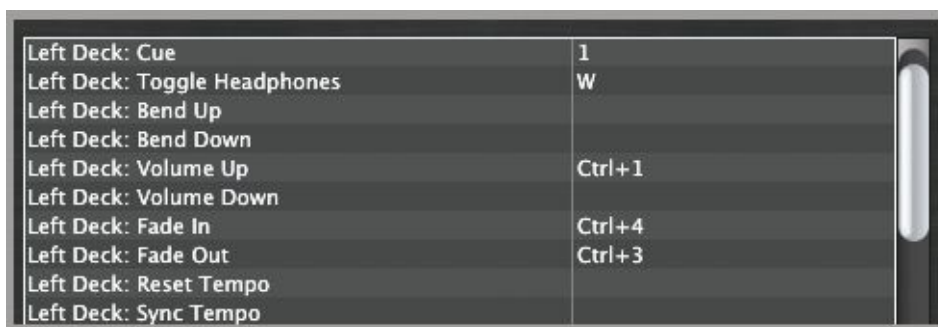
Keyboard Controlling

Many features of Disco XT can be accessed using the computer keyboard. Some features are available as default. You may set up other features yourself.

When you click a knob or slider in Disco XT, you can then adjust the value of the control with the up and down arrows.

Crossfader can be adjusted with the left and right arrows.

Select 'Keyboard Controlling..' under 'Edit' menu to view and edit keyboard controls.

Listing keyboard controls.

If you wish to clear all default keyboard controls, press the 'Clear All' button.
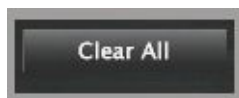
Adding or editing a keyboard control
Select an item from the list of available features.
Press a key from your keyboard and the key will be assigned to the selected feature.

You can hold down one or more of these keys along with the key: Shift, Control, Alt.

On Mac you can also hold the 'Command' key.

You can add or change keyboard shortcuts for menus as well (such as the File menu or the Edit menu).

The list of keyboard controls can be printed by selecting 'Print Keyboard Controls...' under the 'File' menu.

Columns

The song lists of Disco XT show song information in columns, such as title, artist and album. What information is shown in the columns and how many columns are shown can be changed. Each tab has its own columns. Changing columns only affects the current tab.

Select 'Columns...' under the 'Edit' menu.

A Column window opens.

You can change the columns of the Music List, the P List or the Side Editor. Your library and playlists are shown in the Music List or in the Side Editor. P List is for automated mixing.

Changing columns of 'Music List'

Select the number of columns you wish to show from the 'Columns' popup menu. You can have up to 14 columns shown.

Select the number of rows you wish to show from the 'Rows' popup menu. You can have up to 4 rows.
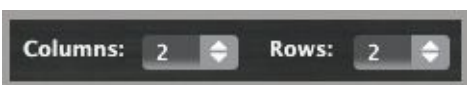
'Columns' and 'Rows' popup menus.

In this example 'Columns' have been set to '2' and rows have been set to '2'. The information is placed on two text lines.

In this example 'Columns' have been set to '4' and rows have been set to '1'. The information is placed on a single text line.
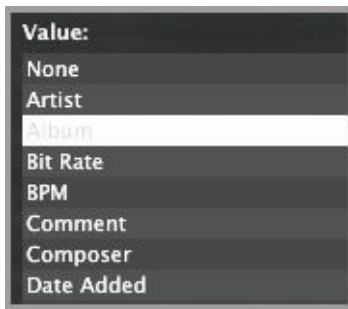
Select one of the boxes in the 'Column Grid' and the box highlights.

'Column Grid'.

Select information you wish to see in that column/row from the 'Value' list.

'Value' list.

Transitions

Songs can be mixed to a continuous stream automatically. Songs are transitioned using the selected transition type.
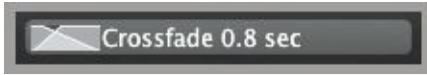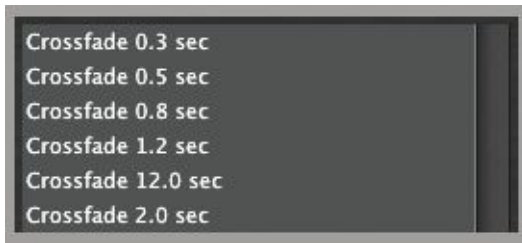

Selected transition type is 'Crossfade 0.8 sec'.

New transition types can be created in the 'Transitions' editing window.

Select 'Transitions...' under the 'Edit' menu.

A list of premade transitions is shown.

If you wish to remove a transition type, select transition name from the list and press the 'X' button.
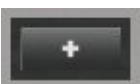

'X' button.

Editing a transition type
Select a transition name from the list and it opens for editing.
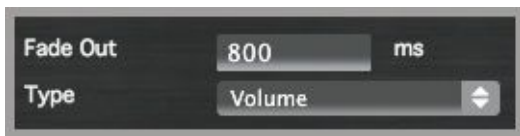
Creating a new transition type
Press the 'Plus' button to create a new transition type. A new item will appear to the transition list named 'New Transition 1'.
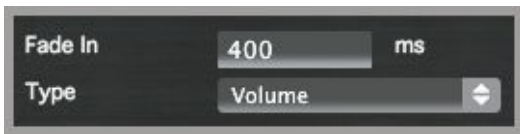

'Plus' button.

ms = milliseconds.
1 second = 1000 milliseconds.

Fade Out
The currently playing song is faded to silence gradually. 'Fade Out' sets the duration of the fade.

Fade In
The upcoming song is faded from silence to audible gradually. 'Fade In' sets the duration ot fade.

Type
By default the fades alter song volume. The fades can be set to use lowpass or highpass filters instead. Lowpass filtering gradually cuts higher frequencies from the audio. Highpass filtering gradually cuts lower frequencies from the audio.

Point 2
Both fades have an additional fading point for adjusting the curve of the fade. This fading point can be adjusted with the 'Point 2 Offset' and 'Amount' knobs. 'Point 2 Offset' is a position in the fade from 0% to 100 %. Amount sets the level at the 'Point 2 offset'.

Offset
Offset sets the position for starting the playback of the upcoming song. Offset is relative to the the beginning of the fade-out.

If the offset is set to a negative value (below 0), the upcoming song will play over the currently playing song for the set amount. For example, with an offset of '-900 ms' both songs overlap for 0.9 seconds.
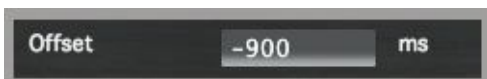
With an offset of 0 ms the currently playing song fades out and the upcoming song will then fade in.

With an offset of above 0 ms (such as 1000 ms), the currently playing song fades out to silence and silence lasts for the duration of the offset and the upcoming song will then fade in.

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A visual help is shown when editing the transition.

Play Sample
An audio sample can be attached to a transition.

Recording a sample with a microphone
Click the 'Mic' button to start recording from a microphone. The recorded audio starts to show in the waveform display and a counter increases, showing the duration of the recording.

'Mic' button has a red light when audio is being recorded from the microphone.

Recording from a microphone.

Click the 'Mic' button again to stop recording and the recorded audio opens up for editing.

Taking a sample from an existing audio file
Click 'Open' button to select an audio file from your computer.

'Open' button.

Loading an audio file to the editor can take a few seconds or up to 30 seconds, depending on the duration of the audio file. When an audio file is being loaded, 'Please Wait' dialog is shown.
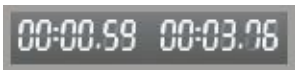
Setting sample start and length

You might not wish to use the entire audio file as a sample. Start and length adjustments are used to take a shorter sample from a longer audio file. The start adjustment is on the left side and the length adjustment is on the right side.
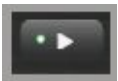

Sample start and length adjustments.

Press the adjustment control and move the mouse to the right or to the left to adjust. The start adjustment can also be set by double clicking on the adjustment area.

The editor display shows the start and the length of the sample with minutes, seconds and 1/100 seconds.

To hear the sample with headphones, press 'Prelisten' button.

'Prelisten' button.

Sample Offset

Set the start time of the sample with the 'Offset' knob.

You can also adjust the offset by dragging the sample block in the 'Visual Help' display.

Sample block in the 'Visual Help' display.

Transition Rotation

Disco XT can automatically change transition types. Transition rotation uses a list of transition types.

After each transition, the transition type will be set to the next transition in the transition rotation list. The transition rotation list goes back to the first transition type when the transition rotation list ends.

Select 'Transition Rotation...' under the 'Edit' menu.
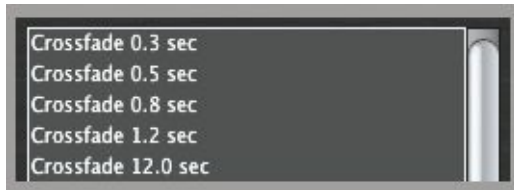
A list of transition types is shown on the left side.

Transition rotation list is shown on the right side.

Select a transition type from the list on the left side and click 'Plus' button to add the transition to the rotation list. You may also drag and drop a transition to the rotation list.
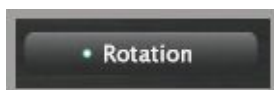

'Plus' button.

To remove a transition type from the rotation list, select a transition type and press the 'X' button.

'X' button.

The order of transitions in the transition rotation list can be changed by dragging an item upwards or downwards.

Press 'Rotation' button to enable transition rotation. The button lights up.

Transition rotation has been enabled.

Preferences

Select 'Preferences' under 'Disco XT' menu to open the preferences window.

Some preferences of Disco XT are explained elsewhere in this user guide, in related topics. The remaining preferences are explained here.

Misc page

'Talkover' button reduces the loudness of music playback while speaking to a microphone. You may adjust how much the loudness is reduced. Default value is 18%.
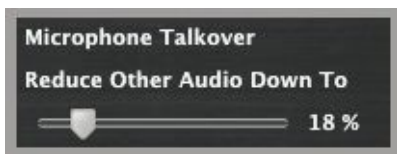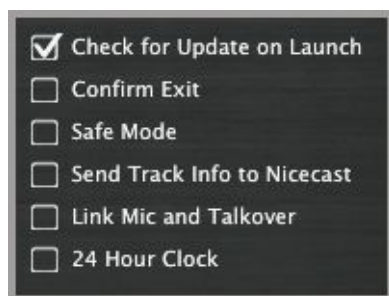

Wave Height
Set height of player waveforms in pixels.

Wave zoom min max
Range of waveform zoom sliders. (1=closest)

Misc 2 page

Check for Update Weekly
When Disco XT is launched it checks if a newer version of Disco XT is available (once a week). If a newer version is available you are asked to download the new version.

Confirm Exit
Before you exit Disco XT a confirmation window is shown to make sure you really want to exit.

Confirmation window is shown.

Safe Mode
In 'Safe Mode' Disco XT does not allow loading a song to a deck, if the deck is playing another song. (The deck needs to be paused).

Send Track Info to Nicecast
Nicecast is a Mac OS X application that can create an internet radio stream from audio output of a another program. With this option, Disco XT sends information to Nicecast about the currently playing song (title, artist).

24 Hour Clock
If you wish to see the time with 24 hours select this option. The time is shown in the 'Current Song' device. 2:45 PM would become 14:45.

Remember List Searches
When you change the current song list from the 'Sources', the state of the previous list is stored. For example, if you were viewing the 'Library' song list with search word 'Rock' and then selected another song list. If you then go back to 'Library' it will be shown with the 'Rock' search word and with any other view options. Disable this feature if you do not wish to have the list states stored.

Tempo page

Save BPM values to iTunes
If you use iTunes software with Disco XT, BPM values can be saved to iTunes when using 'File : Detect BPM for Selected'. This is only available on Mac.

Auto Detect BPM for loaded songs
When file is loaded to player, BPM is detected automatically.

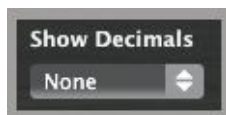Skip Auto BPM detection if BPM exists
No BPM detection is made if BPM already exists (BPM in file tag or manually set).

BPM values may be shown with decimals or without decimals.

Without decimals:120
With 1 decimal:120.2
With 2 decimals:120.24

Auto BPM detection may sometimes give the BPM twice or half the actual tempo. For example, 160 BPM song may appear as 80 BPM. BPM Minimum/Maximum sets bounds for the BPM values to prevent this from happening. BPMs below the minimum will be doubled. BPMs above the maximum will be halved.

Logging page
Disco XT adds songs that you have played to the 'Play Log' playlist automatically.
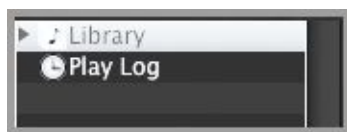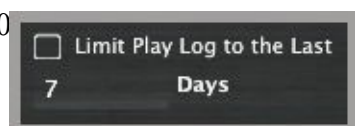

You may adjust how much a songs needs to play for it to be logged. Default value is 25 %, with this setting a 4 minute song has to play for at least 1 minute for the song to be logged.
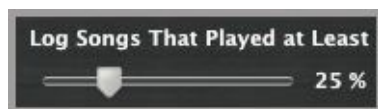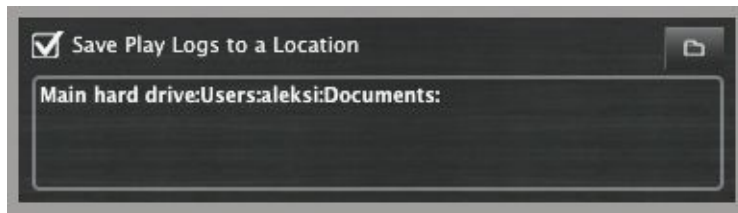

Older songs can be removed from the 'Play Log' playlist automatically by checking the 'Limit Play

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Log to the Last' box and then selecting how many days you wish to keep logged.

Play logs can be saved as text files to your computer. Select 'Save Play Logs to a Location' to select a location for the logs. A folder "Disco XT Playlogs" will be created to the selected location. Each day is saved as a separate file with date in the file name.

Example:
Log10122010.txt is a play log of the day 10 December 2010.

Disco XT can mark recently played songs in the song lists. You may select how recent songs are marked. If you do not wish Disco XT to marks songs, set 'Mark Songs' to none.
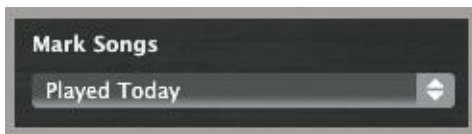
Song is marked with (!) icon next to the song title.

Appearance page
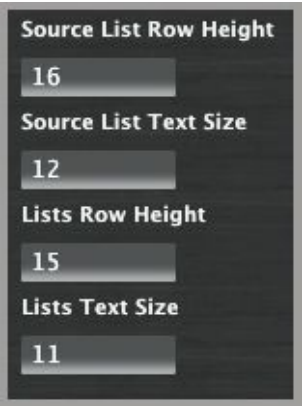
'Row Height' is the height of a single text line in pixels.

'Source List' lists your playlists.
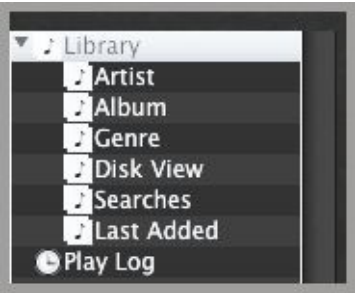

'Lists' lists song information.

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Content Colors

Disco XT has only one skin which is dark grey. Colors of displays and song lists can be adjusted in the 'Content Colors' window.

Select 'Content Colors...' under the 'View' menu.

Each color can be adjusted using three values:
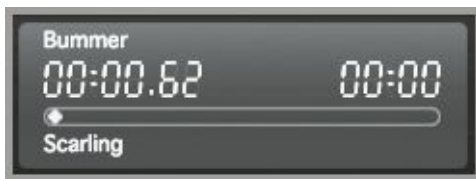H = Hue: A color (such as red or blue).
S = Saturation: light or strong color (such as pink or red).
V= Value: darkens the color.

'Display' sets the color of display backgrounds.
'Display Text' sets the color of display content (text and icons).

'List' sets the color of song list rows 1, 3, 5 and so forth.
'List row2' sets the color of song list rows 2, 4, 6 and so forth.
Setting these two to slightly different colors adds stripes to the song lists.

'List sel' sets the color of song list rows that are selected.
'List text' sets the color of text in the song lists.
'List text sel' sets the color of text in song lists for rows that are selected.
'List misc' color is used for lines drawn between each column in the song lists.

'Menu' sets the color for the menus.

'Menu sel' sets the color for selected menus.
'Menu text' sets the color for the texts in the menus.

To copy a color, press 'C'.
To paste the copied color to another place, press 'P'.

Adjust EQs

The high, mid and low EQs of Disco XT can be adjusted for a different equalization sound.

High, mid and low EQs are available for both decks in the 'Mixer' device.

High, mid and low EQs are also available for all audio output in the 'Main Adjustrols' device.

Select 'Adjust EQs' under the 'Edit' menu.

EQ tuning window opens.
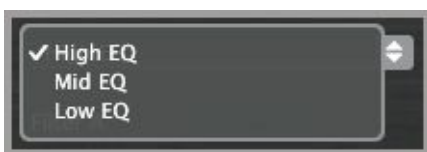
Select which of the EQs you wish to adjust from the popup menu.

Each EQ consists of two filters.

High EQ consists of one highshelv filter (the filter on the top) and one peak filter.
Middle EQ consists of two peak filters.
Low EQ consists of one lowshelv filter (the filter on the top) and one peak filter.

'Filter frequency' can be set from 20Hz to 20 000 Hz (20kHz).

'Q' adjusts the width of the filter. With a low 'Q' value the filter affects wider range of frequencies.
With a higher 'Q' value the filter affects a narrower range of frequencies.

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'Mix' sets the audibility of the filter. If 'Mix' is set to 0 the filter is inaudible.
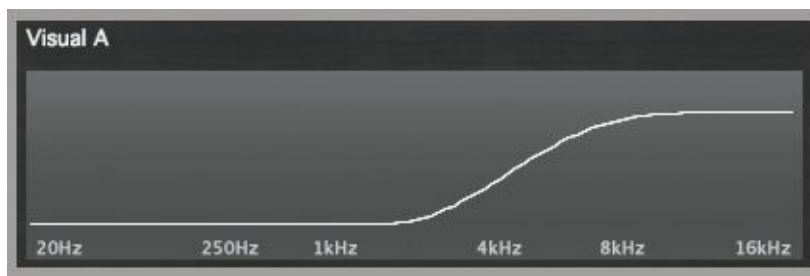
A visual representation of the filter is shown.

Menu functions

Menu functions are available from the menu bar.

'Menu Bar'.

Most menu functions of Disco XT are explained elsewhere in this user guide, in related topics. The remaining menu functions are explained here.

File Menu

'New Playlist from Selection' creates a new playlist and adds the selected songs to the playlist.

'Save Selected Playlist to iTunes' saves the current playlist (selected on the 'Sources' list) to the iTunes software. Available on Mac only.

'Export Play Log as Text' saves the content of the 'Play Log' playlist as a text file with "title – artist" information.

'Clear Play Log' clears the 'Play Log' playlist.

'Print Keyboard Controls...' allows the current keyboard controls of Disco XT to be printed as a list using a printer.

'Backup Settings' copies your user data and settings to a specified location as a folder/directory named 'Disco XT Settings' (Mac) or 'DiscoXT' (Windows). This includes preferences, playlists, BPM values, ratings and some other information.

If you wish to use that folder at a later time with Disco XT, you need to place it to the correct location.

On Mac, the location is Username > Library > Preferences > (Disco XT Settings).

On Windows, the location is Username > Application Data > Roaming > DiscoXT > (DiscoXT) (The location path can vary depending on the used Windows version).

'Check for New Files...'
This feature allows to check one or more locations for audio files that are not yet in the Disco XT music library. Only new audio files are added to the music library.
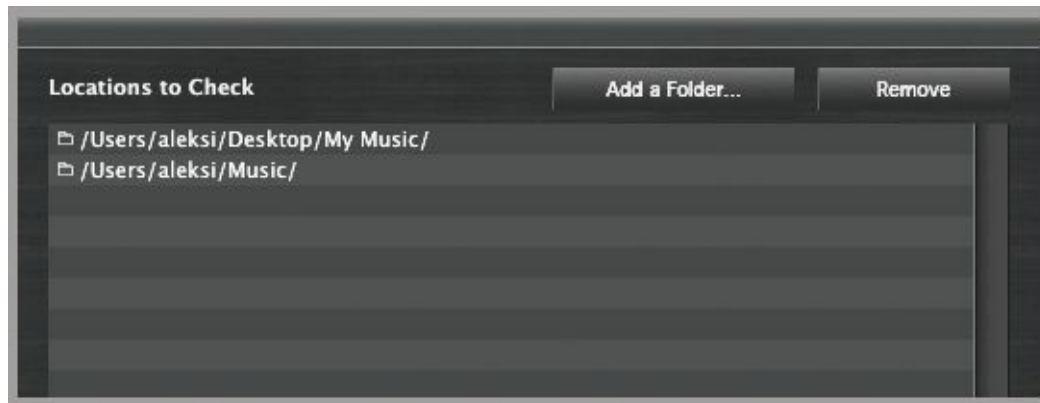
First you need to add one or more locations to the list.
Press 'Add a Folder' to add a folder to the locations list.
Press 'Remove' if you wish to remove a folder from the locations list.

If the box is checked the window will not be shown but Disco XT instead checks the previously added locations. To show up the window again, hold down the 'Shift' key when you select 'Check for New Files...'

When you click 'Done' Disco XT begins to check the locations for new files. This can take a moment.

'Read Album Artwork' reads music files for attached album artwork pictures. After the initial/first read, only new files that were not read previously are read. If you have attached artwork to files that were already read previously use 'Read Artwork (Clean)' instead, that option always reads every file in the library.

'Rebuild Disk View Playlist' rebuilds the 'Disk View' playlist.

Mix menu

'Manual Deck View', when enabled in Automix mode, the currently playing song will be on left or right side, if disabled, the currently playing song will always be on the left side.

'Limiter' enables or disables limiter for master output. You can also do this on the 'Mixer' device or on the 'Main Adjustrols' device. Limiter prevents audio distortion by quickly attenuating if audio output gets too loud (peaks).

'Automatic Gain Control' analyzes songs and sets song gains to similar levels. This reduces audio loudness differences between loud and quieter songs.

Same Eqs: Adjusting either side EQ adjusts the opposite side EQ to same.

Song Sampler
'Song Sampler' allows to set a specific playing time for all songs. When a song reaches the specified time it is transitioned to next song on the 'P List'.

Playing time can be from 20 seconds to up to 6 minutes.
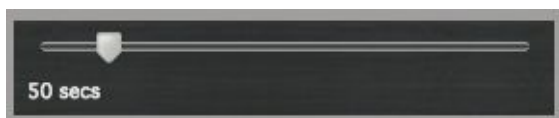
Devices menu
'Wider waves' places waveforms A/B vertically in 1024 pixel width.
'Same wave zoom' is useful with wide option to sync timing of both waves.

View menu
'Artwork within Deck' hides the jog wheels of the audio decks and shows the album artwork picture for the song if available.

Jog wheel is hidden and album artwork is shown instead. In this example a song has no artwork picture.

Artwork at Sides
If there is free space available, an artwork picture is shown at the sides. If the decks take the entire space horizontally no artwork is shown.

Artwork for Selected Song
When a song is selected in the 'Music List', an artwork picture is shown on the left side (above the 'Sources' list).

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Song Colors

You may change color of certain songs in the library, playlists and P List for visual purposes.

First select songs you wish to colorize,
then right click the songs and choose color name under 'Color'.

By default, Disco XT includes 4 colors: yellow, green, blue and pink.

You may change these colors and add more colors by selecting 'Song Colors...' under 'Edit' menu.
Up to 10 different colors can be set.

When editing song colors, each 'Song Color' contains 4 colors:
Background – Color behind song text.
Text – Color of song text.
Selected – Color behind song text when the song is selected.
Sel Text - Color of song text when the song is selected.

Each color is adjusted using H (Hue), S (Saturation) and B (Brightness) sliders
You can copy a color by clicking on the 'C' (copy) icon and then paste the color to another by clicking 'P' (paste).

If you wish to change the default color (when no color has been set to song), select 'Content Colors' under 'View' menu.

Disco XT uses...

PortAudio
Portable Real-Time Audio Library
© 1999-2011 Ross Bencina and Phil Burk
http://www.portaudio.com

PortMidi
Portable Real-Time MIDI Library
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http://sourceforge.net/projects/portmedia

FFTReal
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