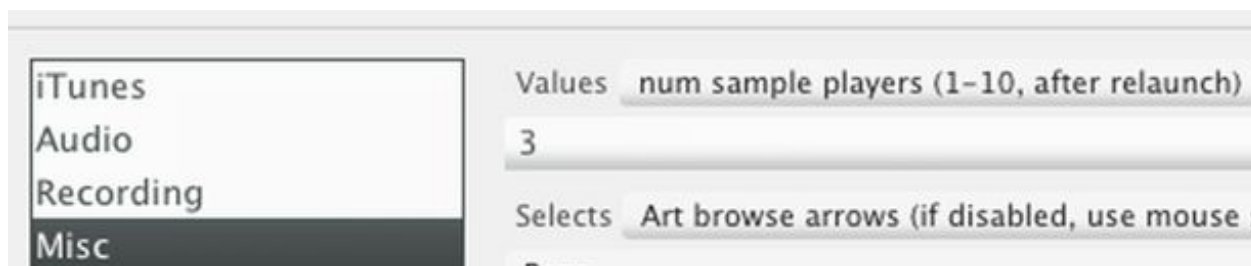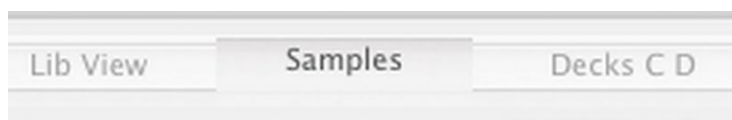# Sampler

Sampler feature is for playing shorter audio samples during mixing. There are up to 10 samplers available, each sampler can be loaded with up to 40 samples: Each sampler has eight pages: A,B,C,D,E,F,G,H each with sample slots 1–5.

By default, only three samplers are shown in the 'Devices' menu, this is usually enough but can be increased to a maximum of 10 in preferences > Misc > Values (restart of Disco XT is required after changing the preference).


The default tab layout has an own tab for sampler, showing sampler 1. If this is not the right place for the sampler for you, the sampler can be moved to any other tab by selecting/unselecting "Sampler 1" from the "Devices" menu, or by adding it to sub-tabs (Edit menu > Sub-Tabs).

Simplest way to load a sample is to drag and drop a file above one of the units 1–5 in the sampler.
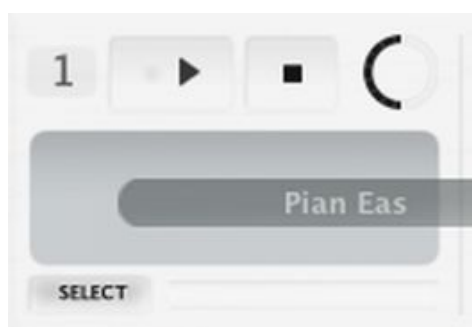
Or you can click 'Edit' button in the sampler, a sample preparation/crop editor is then shown below the sampler. Drag and drop a file to that editor. Set a beginning and duration for the sample using sliders below the waveform. Empty area can be double clicked to set the start slider there.
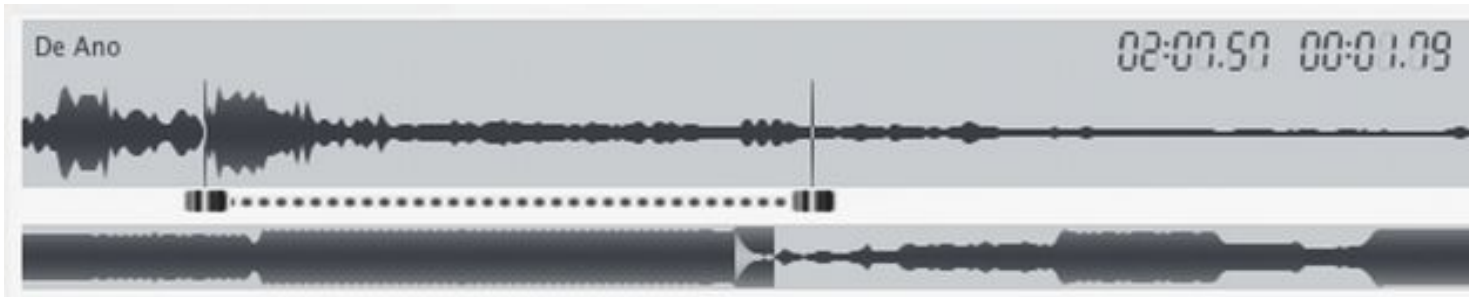
Sampler crop editor.

Click > button to prelisten and when the start and duration is proper, click eject button next to the prelisten button to load the sample for use. Samples are normalized when loaded, which makes all samples play at similar loudness regardless of the loudness of the original audio file.


Eject button.

When Disco XT is recording, the recorded audio can be loaded to the sampler editor by right clicking sample editor folder button.

'File' button on the left from prelisten play button is for playing the file in sampler editor freely outside the beginning and start, this is useful for searching a sample from a longer audio file without constantly having to move the start/duration sliders.
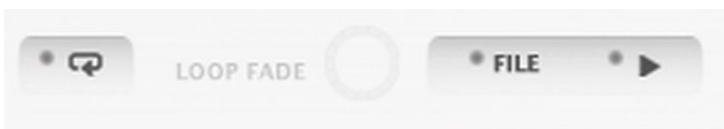

'X' button removes the file form this editor.
Folder button opens a file browsing window for selecting an audio file. Audio files can be prelistened in the browsing window.

Microphone button records a sample using connected microphone (this uses audio input settings as set in preferences). Click the mic button again to stop recording.

Then a button (with round arrow icon) to set the sample to be a loop: the sample is played again from the start after reaching duration continuously until stopped. This looping is not audible in this editor, but after sample has been loaded with eject to the sampler above. Next to loop button is a knob to adjust the crossfade of the loop, increasing crossfade amount often produces smoother looping (repeat/seam is less noticeable) while smaller values are suitable for rhythms etc.

Eject button needs to be clicked to update the player after changing the loop settings.
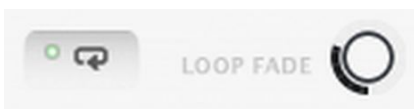
Fade In and Fade Out knobs, right from the eject button, set the sample audio to gradually rise from silence and to gradually fade out to silence (this is mostly for non-loop samples).

Sampler fade knobs.

Copy and Paste buttons on the right side to copy a sampler editor setup from one sampler location (A-H, 1-5) to another. First click copy, then select another sample slot and click paste.

Below each sample player is a button 'Select' to select the sample for sampler editor and for sampler controls.

'CTRL' button shows sampler controls below the sampler/sampler editor:

'Limit' enables/disables dynamics limiter for the sampler. It quickly decreases loudness dynamically when amplitudes rises above threshold (100%). There is already a limiter to prevent clipping/distortion in the main mixer that is enabled by default, this separate limiter is optional, it can prevent limiter from limiting audio of the decks if sampler is playing too loud because the sampler is here limited separately before the main limiter. 'Limit' is one-per sampler (same for samples A-H 1-5).

'Rever' sets the sample to play in reverse (backwards). this can be changed while a sample is playing. When sample is set to reverse and stop is pressed, the sample is set to play from the end (you can notice this from the timeline in the sampler).

'Mult' enables "Multiple Hits" to sample play/pause button: If sampler play button is pressed again before the sample has been played through, another copy of the sample will start playing over it. If "Multiple Hits" is disabled, pressing sampler play/pause button while sample is still playing pauses the sample instead. 'Mult' cannot be changed while sample is playing.

'Tempo' and 'Pitch' sliders (currently Mac OS X only) are only used when sample is loaded from sampler editor by clicking eject button.

'Rate' slider adjusts sampling rate of the sampler (slow down, pitch down, speed up), this can be adjusted while sample is playing.
'Gain5' adjusts gain of all the 1-5 visible sample slots.

'S Crossf M' is a crossfader control (S Sampler, M Main):
Entirely at left (S) only the sampler is audible, at middle decks A,B,C,D,E and the sampler is audible.
Entirely at right (M) only the decks are audible.
This is useful for crossfading main playlist playback to the sampler and back.

If the current sampler is not "Sampler 1", the crossfader will also affect previous samplers along with decks, so sampler 2 crossfader mutes sampler 1, and sampler 3 crossfader mutes samplers 1 and 2.


Sampler headphone button in top-left corner is to switch the sampler output to headphone audio output for preparation purposes. When headphone output is enabled, speaker output is disabled.
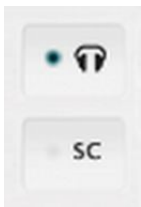
SC button enables sampler sidechain. Sidechain automatically reduces loudness of the main audio/decks during playback of samples (ducking). Enabling/disabling sidechain during playback can make a small click in the audio output.

Below 'EDIT' and 'CTRL' button is a label, double click to enter a label/name for this sampler page for identification (if needed).
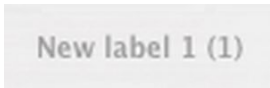
Sampler page (A,B,C...) can alternatively be changed by right-clicking the alphabets area: A menu of sampler pages is shown with number of loaded samples in each page in parentheses (2). The label of the sampler is also shown next to the letter A...

Each sample player has a play/pause button and stop button. Stop button is same as play/pause but it resets sample position back to beginning. Knob to adjust loudness of the sample. Timeline below sample to adjust playback position.
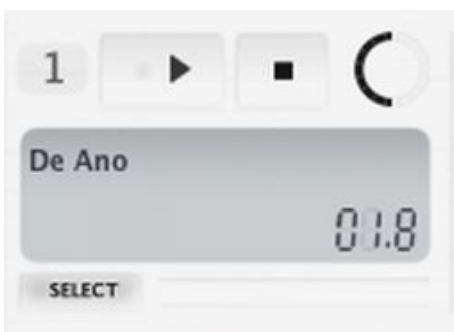
Sample player/slot 1.

Sampler play/pause and stop buttons can be right-clicked to play/stop all five samples at the same time.

Sample name (below the play button) can be right clicked to set a keyboard shortcut for playing that sample. Double click sample name to enter a new name.

By default sampler play keyboard shortcut is play/pause: if pressing the sample keyboard shortcut and sample is playing, it is paused, and pressing once again continues the sample from there.

In preferences > misc 'Sampler play/pause' mode:
This can be changed to play/stop:
If sample is playing when pressing the shortcut key, the sample is stopped (playback position is set back to start)

or to replay:
If sample is playing when pressing the shortcut key, it is set back to start to play again. Another option to replay is to set the samples to 'play/stop' mode and then enable 'Multi' for each sample.

Right click 'EDIT' button to show up sampler functions menu:
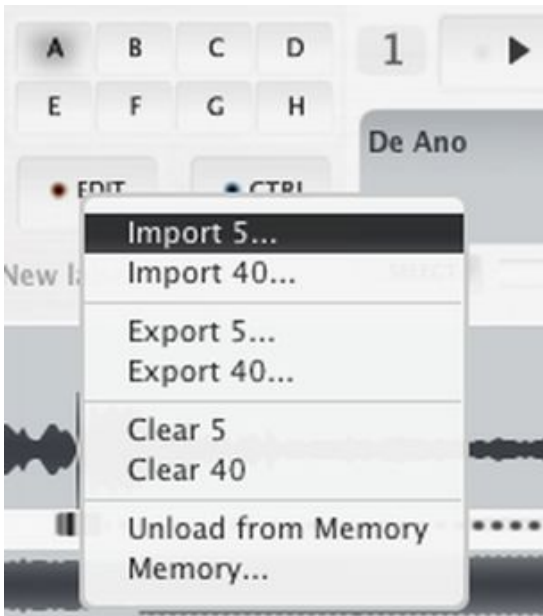
Import 5...
Imports a previously exported sampler page (containing total of 5 samples).

Import 40...
Imports previously exported sampler setup (containing all 8 pages, total of 40 samples).
–
Export 5...
Export current sampler page to a file on disk. (The visible sample players 1–5).

Export 40...
Export all sampler pages (A,B,C,D,E,F,G,H) to a file on disk.
–
Clear 5
Clears all 5 visible samples from the current sampler page.

Clear 40
Clears all sampler pages (All samples in this sampler).

–

Unload from Memory
Samples are loaded to RAM memory rather than read from disk. If using several samplers or multiple pages full of samples or many samples that have duration of several seconds, the memory usage of Disco XT can increase quite a lot. This function allows to unload samples from memory to free memory. The samples in the page cannot be played after unloading. To be able to play the samples again, select 'Load to Memory' from this same menu. Alternative to this is to export the samples to disk using the previouslt described 'Export' and then clear the sampler,a nd if that sampler setup is needed again, it can be imported back.

Memory...
Displays a message window with total memory usage of all samples (all samplers, all pages) in megabytes