Disco XT

New Features

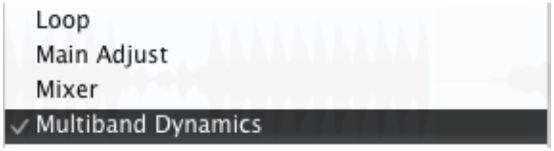
Version 7.8 and Version 7.8.5
May 10, 2018.

This document describes new features of Disco XT in detail.
If you wish to see a change list instead, select 'What's New?' from the program 'Help' menu.

Multiband Dynamics

This feature has been in Disco XT since 2014 (was called 'Multiband Limiter EQ'). In version 7.8.5 (2018) the feature and the quality of the feature was improved.

To use this feature, select it from the 'Devices' menu.



Multiband Dynamics processor user interface.

Dynamics means the variations of loudness in audio signal and the alteration of these dynamics. A drum sound that plays at certain pace over silence has lot of dynamics, where a constant tone has almost no dynamics.

The feature can be classified to three different uses:
Limiter
Compressor
Expander

'Limiter' refers here to keeping audio loudness at certain level but without much alteration of the character of the sound. If audio signal becomes louder then it is rapidly attenuated, this could be due peaks in the audio signal or other.

'Compressor' refers here to reducing amplitude variations of the audo signal rapidly, creating a distinctly different compressed sound character from the original audio signal. One main difference to 'Limiter' is that it is set to fast attack and fast release, while limiter would only have fast attack.

'Attack' means how rapidly the sound signal is attenuated when it is above the set threshold. The knob at minimum is shortest attack and the knob at maximum is longest attack.

'Release' means how rapidly the sound signal is returned from being attenuated, that is, when the signal has exceeded the set threshold and has then been reduced in loudness, then when the signal is no longer above the set threshold it is to be returned from being reduced in loudness.

'Expander' is a sort of inverted version of compressor. It amplifies dynamic variations in the sound signal, such as, if the sound signal is music with a rhythm, rhythms are often louder than other elements in music, the expander would then (depending on the settings) make the rhythm (drum hits) in the signal louder but not the other elements, which can be heard as reducement of sound characteristics to the louder sounds in the signal only.

The feature first separates the audio signal to low, mid and high (Low frequencies are bass etc). After this separation it processes the dynamics of each of these low, mid and high separately and then combines them back to a single signal.

The knobs from the left 'Freq 1 and 'Freq 2' adjust the cutoff frequncies of the filters that separate the audo signal. Adjusting the 'Freq 1' knob to a lesser value makes the 'Low' lower in frequency (bass only) while adjusting it to a greater value inclues more of middle or middle-low frequencies in the 'Low'. Similarly, adjusting the 'Freq2' to a lesser value makes the 'Hi' lower in frequency, it then includes some of higher middle frequencies, while adjusting the Freq 2' to a greater value makes the 'Hi' to very trebles

only.

'Aver' knob is short of 'Averages'. When the knob is set to minimum, the dynamics processing uses sample values as measurements of what the signal level is at a given time. When the knob is set to a greater value, multiple samples are added together for average of them Usually you would set the 'Aver' knob to a low value, such as less than 1/4 but not however to minimum, because at minimum the measurements may be incorrect because as sound has 44100 (etc) samples each second the metering of dynamics processing is a lot slower than this rate. For some uses you can set the 'Aver' knob to a greater value, but that loses rapid dynamics because it is such an average over a longer time duration. If you want rapid compression, set the 'Aver' to near minimum and also set the 'Atta' and 'Rele' to fast (near minimum), but if you set 'Atta' or 'Rele' too fast then it may cause distortion.

From left to right: low, middle and high each have separate same knobs to adjust that dynamics processor.

''Prega' adjusts Pre-gain. This amplifies the 'Low' signal before the dynamics processing. You would first try to adjust the 'Thresh' (Threshold) knob to a lesser value, often from 1/5 to half. Threshold sets a level which the signal must exceed for the compression/reducement to begin, the lesser the threshold value the more compression occurs, although after certain level it does not result to more compression. The feature displays gain reduction happening as a small meter above the 'Low' button. If you see no meter at all, then you may try to increase the pre gain (although it may also be due to 'attack' and 'release' knob values why there is no meter indication of reduction happening). Although increasing of 'Pre-gain' and reducing of 'Threshold' are similar, it is however not the same and can result to different sound characteristics, you would then set the pre gain to a lesser value and lower the threshold.

'Atta' adjusts how fast or slowly the signal audio loudness is reduced when it crosses the threshold. Usually you would set the attack to fast (lesser value) but setting the attack too fast can result to distortion of the audio signal.

'Rele' adjusts how fast or slowly the signal is returned from being reduced in loudness, when the signal no longer crosses the threshold then the release begins until the signal is not reduced/attenuated by the dynamics processor. If the 'Release' is set too fast (near zero) you might hear distortion occuring to the audio signal. Usually a value from 1/10 to 1/4. For 'Limiter' use, set the release longer so that it does not alter the characteristics of the sound.

'Ratio' adjusts how much compression is applied. When the signal metered exceeds the set threshold, the dynamics processor begins to reduce the signal loudness and the ratio parameter sets the amount of reducement.

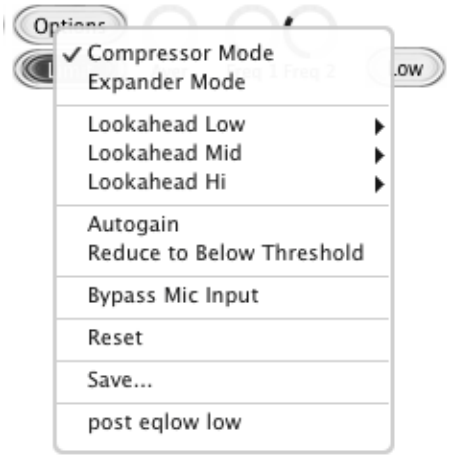
'Gain' adjust the sound level of the low, mid and high after the dynamics processing has been done. Use it to balance the audio levels of these three.

One or two of the frequencies (low, mid or high) may be set to 'Solo' mode. The frequencies not set to solo mode are then muted/inaudible, which can be helpful on adjusting the paramters for that frequency. The 'Solo' button also has another purpose: effects can be enabled and adjsuted for that frequency and by clicking 'Solo' button the effects show up for adjustment. If you don't wish to have any effects to the frequency set to 'Solo' then you can ignore the effects that show up. The 'Solo' mode allows to adjust the effect parameters, but the effects are audible after the 'Solo' button is turned off.

The first three effects: Chorus/Flanger, Distort and param-EQ on the left are processed before the dynamics processor. The remainng three effects: paramEQ on the right and Reverb and Delay are processed after the dynamics. To adjust the effects without going to 'Solo' mode,

right click the 'Solo' button instead.

Options menu



The dynamics processing can be set to 'Compressor' or 'Expander' mode. When set to 'Expander' mode, the knobs may need to be adjusted differently than what the knob values were in 'Compressor' mode. In 'Expander' mode the 'Threshold' knob can seto minimum (zero), while in 'Compressor' mode you would not have the threshold set to minimum.

'Lookahead' adds a slight time delay to the signal which allows the dynamics processing to lookahead (see slighty beyond the current level). This can improve the quality of limiting or compression as the signal can be reduced/matched in advance to a loudness ahead. Lookahead may be particularly useful for the high frequencies, but also for the mid and low frequencies, depending on the parameters and what kind of compression is desired. Lookahead can be set different for low, mid and hi.

'Autogain' normalizes audio input level of the dynamics metering in realtime, making the overal loudness of the input signal somewhat irrelevant, Pre-gain is applied after the autogain, therefore you can adjust the pregain when autogain is enabled. Often you do not need to use 'Autogain' and it is turned off by default.

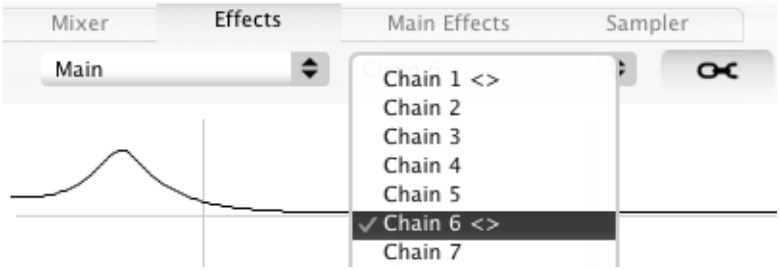
'Reduce to Below Threshold' is only available when set to 'Compressor' mode. Normally, when the audio level exceeds the threshold level it is reduced to the threshold level by amount set by 'Ratio' knob (compression), but when this 'Reduce to Below Threshold' is enabled, if the audio level exceeds the threshold it is instead reduced to below the threshold level. If the 'Ratio' is set to near full then loud sounds become quieter than non-loud sounds. This can be heard as rhythm or kick drum to more or less disppear from the audio signal. When this 'Reduce to Below Threshold' is enabled you probably want to set 'Autogain' enabled as well.

'Bypass Mic Input' allows the microphone input to be added to the audio output of the program after the multiband dynamics instead of before. Then the microphone input (or line-in) is not processed thru this multiband dynamics processor.

'Reset' sets the knobs and these menu options to their initial state.

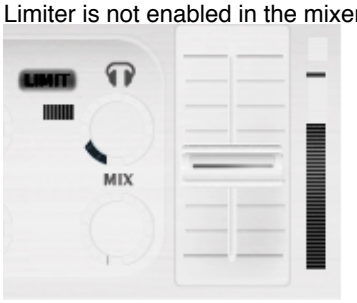
A preset which includes selections of this menus and all the knob values can be saved by clicking 'Save' and then naming the preset. Then a previously saved preset can be loaded from this menu.

Note that if you add effects to the 'Main' effects chains, chains 1-5 are processed before this multiband dynamics and chains 6-10 are processed afterwards, therefore the effects on chains 6-10 are not compressed by this effect.



'Limit' button is the same as clicking 'LIMIT' on the mixer device. If 'Limit' is enabled the output from this multiband limiter also goes thru a single band limiter after this multiband dynamics processor (which there are no parametes for). This allows to catch some too loud peaks which would otherwise clip to audio output, unless the output level on the mixer is set to a lower value. This post limiter is much neutral to original sound characteristics and its purpose is to prevent distortion instead of being a compressor.

Limiter is not enabled in the mixer device and distortion can be seen above the level meter.



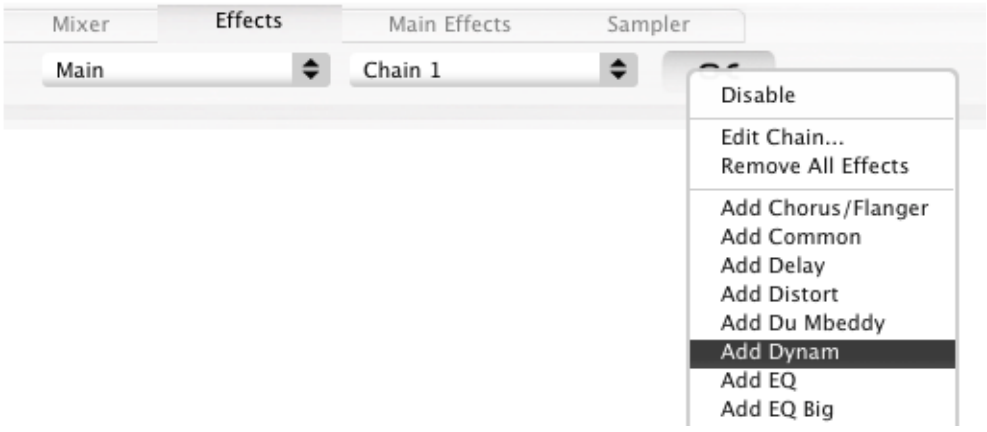
Limiter has been enabled and the limiter meter (horizontally) shows the reduction to the main output level.

As an effect

When low, mid and high bands are done separately, the separation allows more compression or expansion, otherwise the middles would be affecting the lows, or the lows the mids.

For dynamics without low,mid and high separately, add 'Dynam' effect to an effect chain.

Select 'Effects 1' from 'Devices' menu and then click the chain button and select 'Dynam'.




Dynam 1
Mode
P
Pre Gain
Lo • Hi
Averages
A
Attack
R
Release
T
Threshold
Ratio
P
Post Gain

EW Bander

Effect 'EW Bander' has been in Disco XT since 2014. The feature was then improved and extended in version 7.8.5 (2018).

Splits audio into eight frequency bands from low (bass) to high (trebles). Then allows to adjust pitch, LFO, compression and distortion for each of the frequency bands separately.

To use this feature, select 'Effects 1' from 'Devices' menu and then click 'Chain" button and select 'Add EW Bander'.

Pitch Shift

Pitch-shift plays audio at lower or higher frequency but without making the audio slower or faster. You can adjust pitch in the decks(players) of Disco XT by clicking 'Tempo' or 'Rate' until it reads 'Pitch' and then adjusting the slider from middle to upwards or dowards. By adjusting the pitch from this effect unit the pitch can be shifted differently for the different frequency bands: setting low frequencies to play at a higher frequency or setting high frequencies to play at a lower frequency or setting middle frequencies to play at a higher or lower frequency. This separate pitch adjustment then alters the characteristics of the sound and can be used as an effect instead of normal pitch-shifting, such as alteration of human voice of spoken word audio.

The pitch-shift knob of the first (lowest) frequency band is 'SHIFT' and the following pitch shift knobs are S2,S3... until S8. When the knob is at middle there is no pitch-shift, the knob can be right-clicked to reset

to middle. Move the knob to the left (or down) to lower the pitch or move the knob to the right (or up) to increase pitch.

The minimum/maximum pitch shift can be set by clicking the pitch range display on the top right corner of the effect unit.
Pitch 2X: Pitch can be doubled or halved: one octave up or one octave down.
Pitch 4X: Pitch can be 4x or quarter: two octaves up or two octavtes down.
Pitch 1Oct: Same as Pitch 2X but whole semitones instead of between semitones. 12 semitones (up) or -12 semitones (down).
Pitch 2Oct: Same as Pitch 4X but whole semitones instead of between semitones. 24 semitones (up) or -24 semitones (down).
----: Pitch-shifting is disabled. When pitch-shifting is not disabled, there is a slight delay/latency to audio output. Disabling pitch-shift may also affect other features such as modulation or distortion.

'LEN A', 'LEN B' and 'FADE'' and 'TUNE' knobs affects the sound of pitch shifting. Length A is for the lower and length B is for the higher frequency bands. Usually the LEN knobs would be set to a value between 1/8 and 1/3 and the 'FADE' knob to 1/3. If 'FADE' knob is set to a small value then you might hear sound quality issues, increase the 'FADE' knob value to correct. Usually 'TUNE' knob should be set from 1/2 to full.

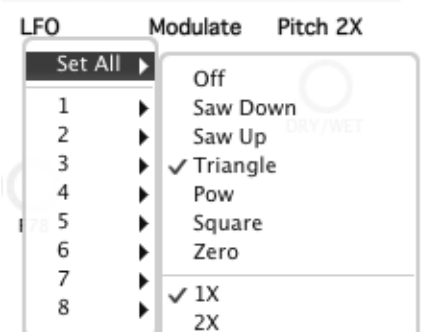
LFO

LFO (Low frequency oscillator) varies pitch, pan, gain or some other parametes. It uses a wave-form and the wave-form at a given time sets the parameter amount, the wave-form is repeated as cycles.

LFO knobs sets the amount of variation, at zero/minimum there is no alteration. The knob 'LFO' is for the lowest frequency band and is followed by the middle and higher frequency bands L2,L3... until L8 (highest).

'RATE' knobs set the frequency of LFO, at minimum it takes several seconds for the LFO to compelte one wave-form, at greater value multiple wave-forms are completed in one second. Again, the first rate knob if for the lowest frequency band and the following R2, R3 until R8 are for the following middle and higher frequency bands.

Click 'LFO' on the top right of the effect for the LFO menu.



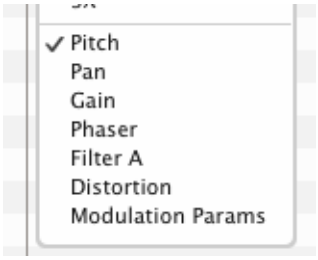
Select a frequency band from 1 (lowest) to 8 or select 'Set All' to set the option to all frequency bands.

First is the wave-form type, which by default is 'Triangle'.
Then is the repeation of the wave-form type. The repeation option is only meaningful if you have enabled the 2nd wave-form type.
Then is the 2nd wave-form type.
Then is the repeation of the 2nd second-wave form type.

If you set the first wave-form type to 'Triangle' and the 2nd wave-form type to 'Square', the LFO then becomes: triangle, square, triangle, square, triangle, square... If you set the

repeation of the first wave-form to '2X' then the LFO becomes: triangle, triangle, square, triangle, triangle, square....

If you don't need the 2nd wave-form type, set the 2nd wave-form type to 'Off'.



Select which parameter the LFO adjusts, which by default is set to 'Pitch'.

Distortion

For a type of 'Foldback' distortion effect. Adjust 'DISTO' knob above zero to enable distortion or set the knob to zero to disable distortion.

First the 'DISTO' knob sets the amount of distortion but at greater values (such as at middle and above) the 'DISTO' knob also affects the type of distortion produced.

After enabling distortion, adjust the 'OVERD' (overdrive) knob to cause distortion. The distortion has a threshold the signal needs to exceed to become distorted and with the 'OVERD' knob the signal is amplified so that it exceeds that threshold.

Although there is only one 'DISTO' knob and one 'OVERD' knob, the distortion is done separately for each frequency band (1-8). The gain knobs of each frequency band affects the gain to the distortion effect and can be used to alter the amount of distortion done to that frequency band. If you wish to only distort some of the frequency bands and leave other frequency bands undisorted, then adjust the 'GAIN' knob of that frequency band to a smaller value. When distortion is enabled ('DISTO' knob set above zero) the 'FXP' knobs work as post-distortion gain, you can then use the 'GAIN' knobs to adjust amount of distortion for different frequency bands and then balance the loudness of these with the 'FXP' knobs.

Compression for a frequency band can be enabled for more distortion, although compression does not cause distortion unless distortion is also enabled (distortion knob set above zero).

Compression

Reduces audio loudness variations (dynamics compression) and also normalizes the audio loudness level of the frequency band.

'COMPR' knob and the following CO2,CO3 until CO8 adjust the amount of compression.

'CAAR' (short for compression attack and release) knobs adjust compression slowness/speed. First four bands have shared knobs as two. The slowness/speed is also adjusted with the 'ATTA' and 'REL' knobs (above these knobs) in combination with this 'CAAR' param, if you hear sound quality issues then increase 'ATTA' or 'REL' and also increase the 'CAAR' knobs. When ATTA' and 'REL' knobs are set low enough (and usually 'REL' (release) longer than 'ATTA') and if 'CAAR' is set low enough, then faster and more compression results, if instead you set these to a larger value, then it sounds more like normalized (autogain). Maximum amount of compression set with COMPR knobs does not necessarily result in maximum compression, but you can try setting the compresson amount (COMPR) to between half and full.

The first 'ATTA' and 'REL' knobs from the left are for lower frequencies the second 'HI ATT' and 'REL' are for the higher frequencies.

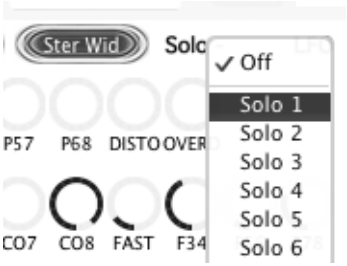
'LOOKA' knobs adjust compression 'Lookahead' which can improve sound quality particularly on the higher frequencies, it allows the compression to see slightly beyond the current signal level and match

that level in advance. The first 'LOOKA' from the left is for the lower frequncies and the second 'LOOKA' is for the higher frequencies. Usually set the 'LOOKA' to either off (zero) or from 1/5 to 1/3.

Solo

A frequency band can be set to 'Solo' mode, other frequency bands are then quieter or muted. This can be useful while adjusting parameters for a frequency band and can also be used during peformance because the amount is adjusted with the 'Solo' knob.

Select a frequency band from the menu by clicking the 'Solo' display.



Then adjust the 'SOLO' knob, set the 'SOLO' knob value to full to completely mute the other frequencies or set the 'SOLO' knob value to zero(minimum) to disabe 'Solo' mode.

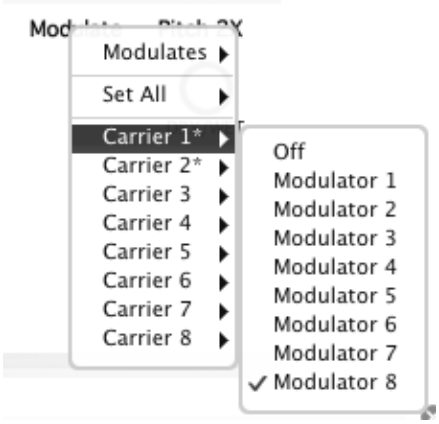
Two frequency bands can be set to 'Solo' mode by selecting another from the 2nd list in the 'Solo' menu. To clear this 2nd option, select 'Off' from the 'Solo' menu and then select a frequency band from the first list in the menu.

Modulation

Creates a type of distortion/modulation to a frequency band using another frequency band.

Carrier is the frequency band to be modulated, which then is altered.
Modulator is the frequency band used for the modulation, which is not altered.

Click the 'Modulate' display to show up the modulation menu.



For example:
Select 'Carrier 1' and then select 'Modulator 8' from the modulation menu.
Set frequency band 1 to 'Solo' mode (see above) to hear the result.
This then alters the sound of frequency band 1 by using the frequency band 8.

Modulation can be set to either 'Envelope' or 'Sign'. This sets the modulation effect type used.

After making selections from the 'Modulation' menu you also need to adjust a few knobs, Set the 'MODU' knob to full to enable modulation, or to a lesser value for less modulation effect, or to zero to set modulation off. Then adjust the 'ATT' and 'REL' (for lower and mid low frequencies) and 'HI ATT' and 'REL' for higher and middle frequencies. These are on the right from the 'MODU' knob. Note that the 'ATT' and 'RELE' knobs are also used for the compression feature, therefore if using modulation you can disable compression or otherwise adjust both.

If modulation has been enabled, try turning filters ON by setting filter knobs to above zero.

Modulation can be combined with the distortion effect of EW bander for a different type of distortion effect.

Other Options

EW Bander effect can be computationally expensive and therefore you should not have many instances of it simultaneously.

EW Bander has a quality option which reduces the computation time by some "reducement" of quality. Often this reducement of quality is not noticeable and isn't necessarily a reducement at all, except when set to 'E' or 'F' (lowest). The quality option can be set to a lesser quality if the computer is otherwise too slow to use the effect. The highest quality is 'B', by default the quality is set to 'C' which is high quality, the difference to 'B' is slight and may only be slightly noticeable when pitch shifting. Modulation mode is only available when quality is set to 'B' or 'C'.

When quality is set to lowest (F) the last two bands (7 and 8) are not used and the highest frequency band is instead number 6. When quality is set to second lowest (E) the last band (8) is not used and the highest frequency band is instead number 7.

EW Bander can be set to 'Stereo', 'Wide' or 'Mono' mode. When set to 'Mono' mode the channels left and right are combined to one. When set to 'Wide' mode and if filters are enabled, the stereo image is widened.

You might notice that EW Bander does not have entirely neutral sound (compared to the original input signal) when all frequency bands are set to middle gain and no pitch shifting or other effect of EW Bander is applied. However, as EW Bander is used for pitch-shift, LFOs and distortion, this is not usually an issue, but for plain equalizing purposes you should use the 'EQ' effects instead of EW Bander.

EW Bander causes some latency/delay to audio output. You can hear this when you adjust dry/wet from zero to audible as an interruption in the audio output because the effect is not processed at all when dry/wet is set to zero. Because of this interruption you should not set dry/wet fully off to zero during performance if you are going to later set dry/wet to above zero (without a pause). You can alternatively set 'Sync Dry Input' to off by clicking the button next from 'Qual'.

Other Knobs

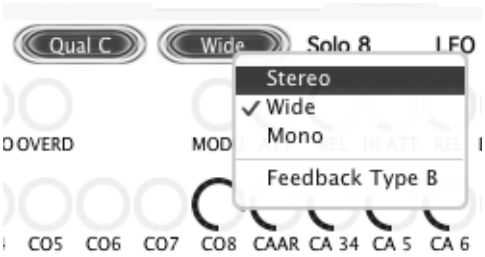
FILT A, FILT A and FILT B knobs adjust optional filtering of the frequency bands. Set the knobs to zero (fully left) to disable these filters.

MSTR adjusts the Master gain/level output of the EW Bander effect. Master level is applied before the limiter and will not therefore exceed output loudness beyond the limiter threshold if limiter is enabled.

LIMIT adjusts amount of limiting. This limiting is done to all bands together after combining them at the last stage of the effect. Set the limiting to full (fully right) to limit audio ouput level to about 98%, this prevents the audio output being too loud without the user having to adjust the master gain. There is also a limiter in the mixer device of Disco XT and the limiter in the mixer may further prevents over/peaks.

'FDBK' sets amount of feedback delay, repeating previous audio over the present audio. The length of the feedback loop is set with the next 'FDEL' knob and the previous 'LEN A' and 'LEN B' knobs, although the LEN knobs also affect pitch-shifting (if that feature is used). Also adjust 'Gain' knobs 1-8 to a greater value to increase amount of feedback if needed.

There are two types of feedback, selectable by clicking the button next from 'Qual'. The default (Feedback type A) is for more common use, the second 'Feedback Type B' can be selected but may produce odd results, such as high frequencies disappearing to low frequencies.



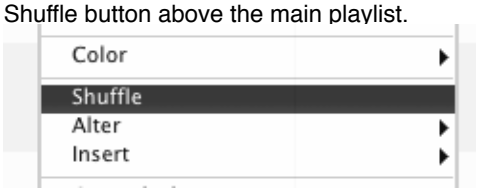
Clicks List Shuffle

New feature in Disco XT 7.8

Can be used to shuffle the order of songs on a playlist. Shuffle means to more or less randomize the order of songs. Song order starts from top and moves downward on the playlist: 1,2,3,4,5...

A quicker way to shuffle the order of songs is to click the shuffle button above the main playlist or to right-click items on a playlist and select 'Shuffle' from the menu. If more than one song is selected then the selection is shuffled, if only one song is selected then the entire playlist is shuffled.

Shuffle button above the main playlist.



Right-clicked on a playlist to select 'Shuffle' from the menu.

The quick shuffle feature uses pseudo-random numbers which it obtains from the operating system.

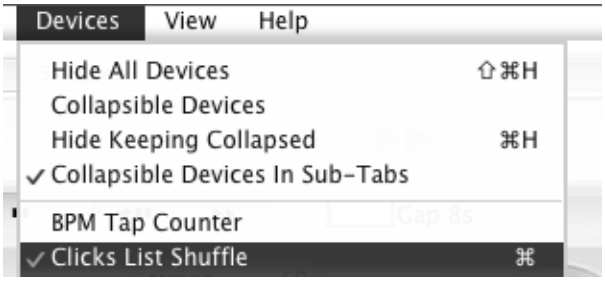
Now to the 'Clicks List Shuffle' feature...
The results of the quick shuffle can be too simple for some purposes. When using this feature to shuffle songs the user itself has more to do (at least something to do) with the resulting shuffled song order.

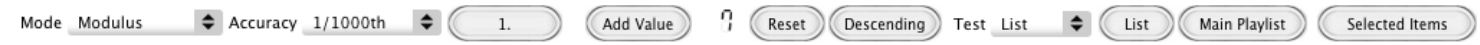
The user clicks a button or presses a key on a keyboard multiple times repeatedly and the program stores the approximate (but rather exact) time of these clicks or key presses. The program then finds slight differences with these timings and uses those to shuffle/resort the order of songs.

For example, if the user clicks the button once every second multiple times the time interval between clicks are not exacly one second, the result could be:
2nd click: 1.1 seconds
3rd click: 0.9 seconds
4th click: 0.95 seconds
...
Then when these are sorted, it results as:
3rd click: lowest (0.9)
4th click: second lowest (0.95)
2nd click: highest (1.1)

And in such a way the user shuffles the order of songs by slight time differences between clicks or key presses.

To use the 'Clicks List Shuffle' feature, select it from the 'Devices' menu.

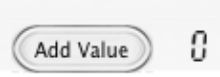




'Clicks List Shuffle' user interface.

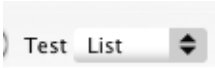
How to use?

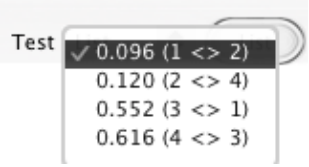
Decide some interval/delay such as 1 second or 2 seconds, or using varying interal/delay, and click repeatedly the 'Add Value' button.



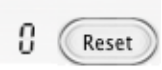
Add value button has been clicked 5 times which has resulted to 4 time intervals.

Then you may click 'Test' menu to see the list of these time differences. This is for display purposes only.



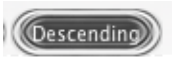


If you wish to do the clicking again from beginning, click 'Reset' button to clear all clicks/key presses, and the counter shows again zero (0).



Clicks/key presses have been resetted/cleared.

The new song order obtained from these clicks can be reversed, so that the first is last and the last is first, to reverse the order click 'Descending' button. You may then click 'Test' to see the result of this. You can click 'Descending' again to return to the non-reversed order.



The accuracy of time differences of clicks can be changed. The accuracy can be one second (1), one tenth of a second (1/10), one hundreth of a second (1/100) or one thousandth of a second (1/1000).

It is not necessarily better to have the highest accuracy because lower accuracy can be closer to human sense of time. Highest accuracy may instead be a random result of the equipment (mouse, keyboard, the computer) instead of the clicks of the user (depending on the delay between clicks).

If you set the accuracy to one second (lowest), then the time differences are rounded to the nearest whole seconds: with this setting the delay between clicks/key presses should be longer, because otherwise all the numbers will be the same:1,1,1,1,1,1 or 2,2,2,2.. and thus there is no information for shuffling the order of the songs.

The accuracy can be changed after clicks/key presses have been made because the reducement of time accuracy is only done when processing the clicks or when clicking the 'Test' menu to see the results (without overwriting the existing accuracy).

How these clicks/key presses made by the user are processed can be changed from the 'Mode' menu.

Seconds:
Lists time distances from one click to the next click, results can be from 0.0 to several seconds.

Modulus:
Lists times of clicks/key presses thru a modulus function, modulus amount is set by clicking the button after the accuracy menu (from the left), which by default is 1.0. If modulus amount is set to 1.0 then the result is always less than second: modulus of 1.2 is 0.2, modulus of 1.6 is 0.6, modulus of 0.9 is 0.9, modulus of 0.3 is 0.3 etc. The modulus amount can be set to a number greater or lesser than 1.0.

Modulus amount button on the right from the accuracy menu.

Difference:
Lists time distances according to differences to the other time distances, time distance which is most similar to other time distances appears first.

Applying the shuffle to a playlist

You should now have tens, hundreds or more of clicks or key presses, the amount of clicks can be less than the number of songs on the playlist, the program then uses the any amount of clicks as a pattern, starting again from the first of clicks (but this does not result to the same song appearing multiple times).

If you only wish to alter the order of selected songs on the playlist, click 'Selected Items', otherwise the order of all songs on the playlist will be changed (shuffled).

The program has a song library and a playlist viewer editor (usually on the left side) (List), and then the playlist editor used for automix and for other purposes (usually on the right side) (Main Playlist).

To apply the shuffle to the main playlist, click 'Main Playlist'.
To apply the shuffle to the library playlist, 'click 'List'.

Using keyboard

If you prefer to use the keyboard instead of mouse, you need to specify a keyboard shortcut: Select 'Keyboard Shortcuts' from 'Edit' menu... to the search field type 'clicks shuffle' and an item named 'Clicks Shuffle Add Value' should appear, select it from the list and enter a keyboard shortcut, and then click 'Done' button.

Saving the numbers

If you think you would wish to use the same clicks at a later time after quitting the program, you can save the clicks to a text file and then at a later time load the text file to the program. Click the mode popup (first on the left) to save or open. Set

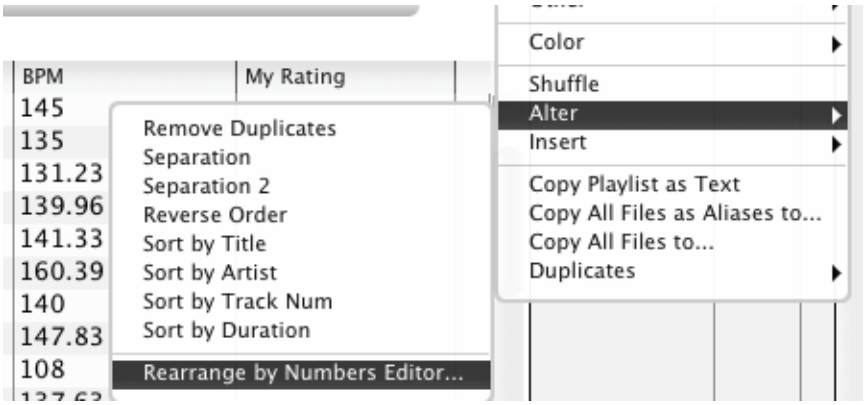
Rearrange by Numbers

This feature was added to Disco XT version 7.8.5.

An alternative way to rearrange the order of songs on a playlist which is based on number choices and guessing instead of song information. The user types numbers on a keyboard and then hits 'Enter' or 'Return' key to add it to the rearranged list.

To show up the editor, right-click on song list and go to sub-menu 'Alter' and select 'Rearrange by Numbers Editor'.

If there are more than one song selected, then only selected songs are rearranged, if one or no song is selected, then the entire playlist is to be rearranged with this editor.



Right-click on a playlist to show up the editor.

If there are less than ten songs, then type a single number from any which are visible in the

editor and then click 'Enter'.
If there are more than ten (10) songs then you need to type two numbers, the first item is then 01 instead of 1, so the user needs to type '0' before typing '1', unless going above ten or above twenty etc, then the user would type 1 or 2...and then a second number.
if there are more than hundred songs then you need to type three numbers, the first item is then 001 (with two zeros) instead of 1.

If a number is not available then the number pressed is ignored, for example if there are 95 songs to be rearranged and the user presses 9 and then 6 (for 96) then the latter '6' is ignored, if the user has already added a number (such as 92) then the user cannot add the same number twice.

If after hitting 'Enter' or 'Return' nothing happens on the window, you then have not typed each number required, if you have 100+ items then you need to type three numbers until you can add a number to the list on the right side. When a number is added to the right side the number displays on the left side clear from that number and you can then type another number.

Press backspace key to remove a number pressed.

Number of remaining items and number of total items is displayed. If the user wishes to not add any further numbers and the remaining is not 0 (zero), then the user needs to click 'Remaining To' or 'Pattern' to fill the remaining items, otherwise the non-selected numbers will be removed from the song list upon clicking 'Done'.

Remaining To:
Adds the remaining numbers (numbers that have not yet been added to the list) in numerical order (from lowest numbers to highest).

Pattern:
Also adds the remaining numbers, but tries to make the order of these similar to the number distances typed by the user (on the right side list), such as if the user has entered number 01 and then number 03, then the pattern button finds that the difference is 2 because 03-01 is two. Pattern does not add the same song twice.

The number list from the right side can be copied as text by selecting 'Copy Text', you can then open a text editor program and paste the list there. If you wish to reuse a number list from a text file, you can copy the numbers from a text editor program (each number on a separate line) and then paste by clicking 'Paste Text'.

If you wish to clear any numbers typed to the right side list, click 'Restart'.

If you wish to change a previously typed number, select it form the list on the right side and then type a new number. The number cannot be any number already on the list, except the one selected. If you have selected an item from the list on the right side and wish to instead type a new number to the list click 'Unselect' button.

If you do not wish to see any song text information on the editor window, select 'Hide Name'.

A number on the list can also be dragged to other position on the list by mouse press and drag.

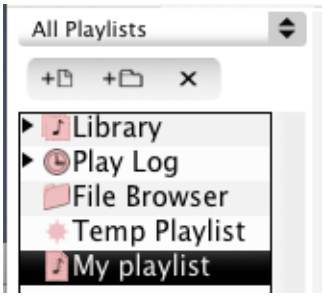
Finally, click 'Done' to rearrange the items and close the editor window.

After clicking 'Done' the numbers the user has typed is not available by selecting the editor again, to have the same numbers again click 'Copy Text' and then click 'Paste Text' once this editor window is open again.

Top Folders

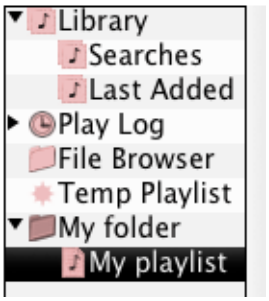
This feature was added in version 7.8 (January 2018).

Playlist in Disco XT refers to either the 'Main Playlist' (which is by default on the right side) which is used to Automix songs and can also be used for storing songs, or playlist refers to a playlist created and saved and selected from the sources list (list of playlists and the library), the latter is playlist as referred to here.



A playlist has been selected from the sources list.

Folders can be added to the 'Sources' list and then playlists or other folders placed to inside a folder by drag and drop.

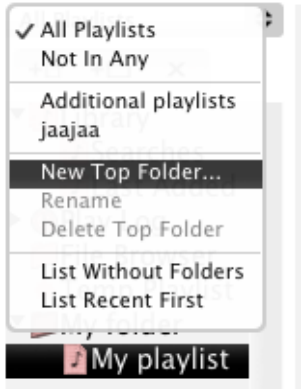


A new folder 'My folder' has been created and a playlist has been moved to the folder.

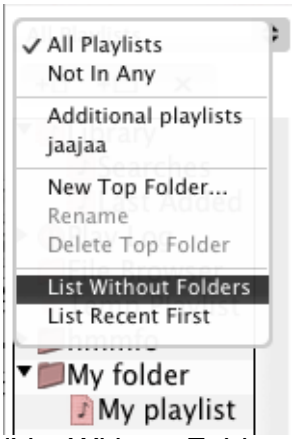
While the 'Sources' list can thus be organized by placing playlists or folders to inside folders, however, over time this may be inadequate for a clear view of playlists and 'Top Folders' attempts to improve over this.

'Top Folders' allows to place playlists and folders to inside these 'Top Folders', but unlike the folders on the sources list, these can be viewed without any of the other folders or playlists visible, by selecting a top folder to viewed from the top folders menu.

To create a top folder, click the top folders menu (a popup above the sources list) and select 'New Top Folder...' and enter a name for the top folder.



From the same menu you can select to either show the contents of all top folders (and playlists not in any top folders) by selecting 'All Playlists', or select a name of top folder to only see the contents of that top folder. If playlists are not in any of the top folders, you can view these by selecting 'Not in Any' from the menu.



'List Without Folders' allows to view the sources list as playlists only, no folders are then listed (shown), if a playlist is placed to inside a folder then the playlist is listed but the folder is not. This is only a view option, it does not alter the folder structure that has been created and the folders can be viewed again by unselecting the option.

'List Recent First' allows to view the sources list arranged so that the latest playlist modified is on the top, for this you may wish to also select 'List Without Folders'.

Folders or playlists can be moved from one top folder to another top folder by right-clicking an item on the sources list and selecting a top folder from the 'Move to Top Folder' sub menu. If you want to create a copy, select 'Duplicate to Top Folder' instead, otherwise the playlist is moved to the top folder and then no longer exists in the previous top folder.

Note that the 'Duplicate to Top Folder' option only duplicates playlists, if a folder is selected to be duplicated, then the folder is duplicated as a playlist (with the folder contents).