## Chance Pack 4

## Idmdesign.org



This pack comprises 10 devices for filtering, modifying and introducing probability into the MIDI stream. What started as an attempt to update devices from the popular Chance packs and Midi Filter pack, the pack took on a life of its own and grew into a lot of different devices and completely redesigned ideas from the ground up. Each device will let through all MPE data. All of the devices are also fully set up for Push and for mapping the controls to a midi controller.

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## Play Pro



This devices further refines the idea of using probability into something which sounds like it should. Instead of tossing a coin every time a midi note comes through, which can have very varied results, this device will allow through a definite percentage of a set number of notes. $50 \%$ of 8 notes will always play 4 of every 8 notes to provide a consistent density of notes passing through the device.

Simply set the probability amount and the number of notes to which that percentage will be applied.

## Note Filter



This device will allow or block a number of specific notes or a range of notes, and also set the probability for each. We can route midi between different tracks and use this device to filter the output.

a) Mode - Pass or Block the desired notes
b) Filter - Individual notes or a range of notes
c) On/off - In individual mode you can select up to 6 notes to filtering
d) Note - Select specific notes, or in Range mode, a maximum and minimum note
e) Probability - Set the probability of the note being passed or blocked

## Force Note



This device is simple, and another tool for easily filtering midi after routing to another track in Live. All incoming notes will change to one specific pitch. Simply set the pitch at the bottom.

## One Two



This device takes the same concept or probability as the Play Pro device and applies it to playing one of 2 notes. Any incoming note will play one of the selected notes according to the weighted probability. That definite percentage of notes will be played from the desired range set at the top.

Set the note range across which the probability amount will be applied.
Set the balance of probability.
Set the notes.

## Velocity Band

| $\triangle$ |  | $\begin{array}{r} 98-127 \\ \hline 100 \% \\ \hline \end{array}$ |
| :---: | :---: | :---: |
|  |  |  |
| $\checkmark$ | 98 |  |
|  |  | 56-97 |
| - 56 |  | 100\% |
|  |  | 1-55 |
|  |  | 100 \% |
|  |  | Velocity Band |

Here we can split notes into 3 groups based on the velocity amount, and give each band a probability of playing. Click and drag on the bars on the left to change the threshold amount, and set the probabilities on the left. Of course we can use $0 \%$ and $100 \%$ to always allow only a set range of notes through based on velocity but the probability amounts makes it more flexible.

Note Band


This device functions exactly the same as the Velocity Band device above, except the notes are filtered by specified bands according to the pitch. Only want the bass notes coming through from another track? Set it up with the desired threshold amounts.

## Humanize



Simply set the maximum delay amount for each note. A random delay amount up to the maximum will be applied to each note to create a less robotic playback.

## Vary Press



This is the only device specifically designed to modify MPE data, but since Live can send Pressure control in the piano roll, this is accessible to anyone. In fact this is designed for MPE data which is set in the piano roll, to vary the pressure control so that it doesn't always sound the same. Much like the velocity variation functionality in Live, this will add or subtract a random value from the output.

## Quantize Velocity



This device was inspired by the 303 and its use of an accent on specified notes. In many synths we can map velocity to various parameters to change the sound, and we end up with a gradual change from 1 to 127 velocity. This device instead allows us to quantize the velocity value. Using only 2 bands, we can set it so that we only have 2 possible velocity levels, perhaps 1 and 127 and only notes over a specified threshold with trigger the 127 amount. This means we can have an accent on only those notes and the change can be dramatic rather than gradual. We can also choose up to 4 values if we want.

## Cluster



Cluster is the most complex device of the pack, and yet even though it gives us a lot of flexibility, it serves quite a simple function. It allows us to trigger a group of notes which will play together, each one delayed over a set duration. The most obvious use is to create a unique cluster of claps on each play, using only a few individual clap samples. A specific trigger note will play the cluster of notes selected.

a) Trigger - The device will be trigger by this note coming in, and all other notes will pass through the device
b) Number of notes - This will set the number of notes or hits in the cluster and will be reflected in the box at the bottom
c) Root - This is the root note of the cluster which will play. All of the note numbers in the box below are relative to this specified pitch.
d) Notes - This is the notes in the cluster, their pitches are set relative to the root note above.
e) Shuffle - When this is off, the notes will play in the same order each time, left to right. When shuffle is on, instead a random order of the notes will be selected on each hit so that it sounds different every time

a) Stagger - The left box is to have evenly spaced hits. The timing of the hits are evenly spaced across the duration set below in ms. Stagger mode will give each hit a random amount of delay within its own time spacing, they still play within the same division of time but each time it is randomised.
b) Velocity Variation - This will add or subtract a random amount to the velocity of each note on each hit.
c) Curve - This provides another was to change the distribution of notes across the duration. Drag up and we get more of an exponential spacing, with a higher density of notes towards the start. This makes for a much more natural simulation of a number of people trying to clap at the same time, they are more likely to play on time, with some delayed. Drag down for the opposite effect.
d) Duration - Set the duration for the playback of the entire cluster. All of the other timing controls are relative to this duration amount.
e) Time Variation - This will add or subtract a random number of ms to the duration amount, so that each time there is a slightly different duration, again another way to humanize the cluster playback.

Note - Since this device creates a lot of new notes (up to 12) spread across the midi channels, any other notes which are not triggering the device can potentially interfere with the note allocation system and MPE data. To counteract this, all other notes are send out on channel 14 and so if there are multiple extra notes they will interfere with each other, but not the cluster notes. This device is not really
designed with MPE polyphony in mind but rather triggering a number of samples in a drum rack together.

