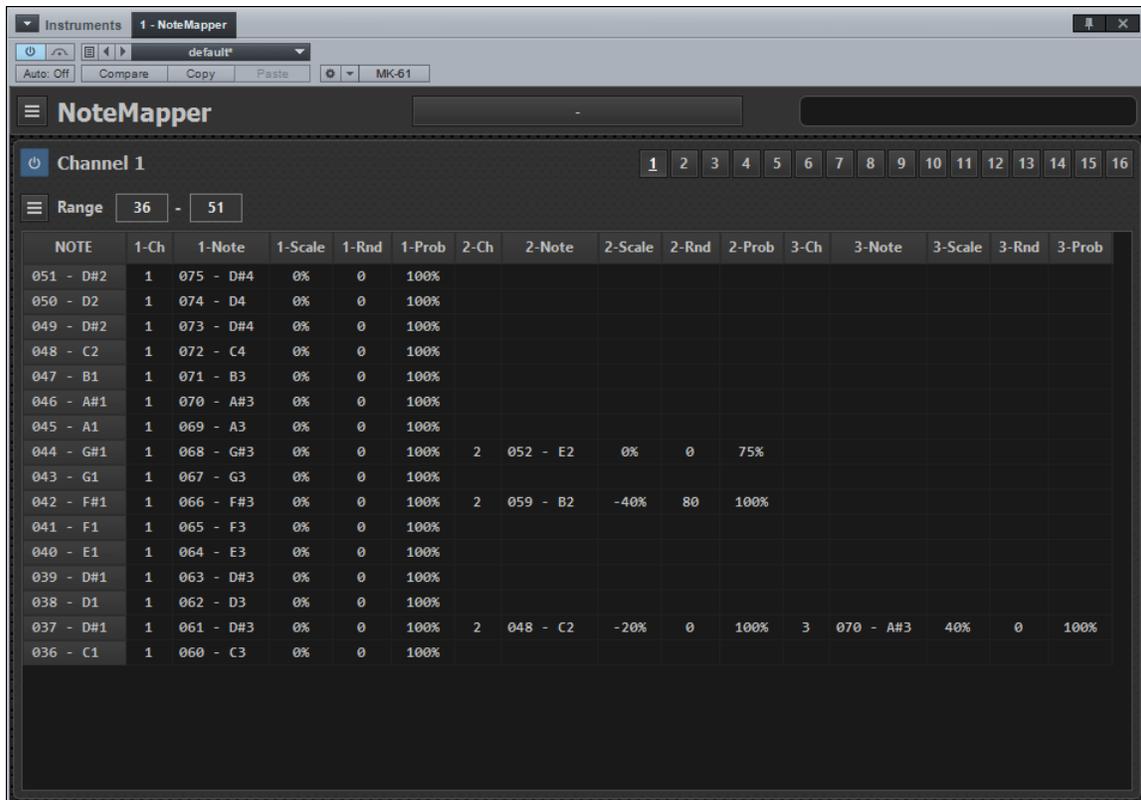


NoteMapper

User Guide



The screenshot shows the NoteMapper software interface. At the top, there is a menu bar with 'Instruments' and '1 - NoteMapper'. Below that is a toolbar with buttons for 'Auto: Off', 'Compare', 'Copy', and 'Paste', and a dropdown menu showing 'MK-61'. The main window title is 'NoteMapper'. Below the title bar, there is a 'Channel 1' section with a range selector set to '36 - 51' and a piano roll view with 16 keys. The main area contains a table of note mappings.

NOTE	1-Ch	1-Note	1-Scale	1-Rnd	1-Prob	2-Ch	2-Note	2-Scale	2-Rnd	2-Prob	3-Ch	3-Note	3-Scale	3-Rnd	3-Prob
051 - D#2	1	075 - D#4	0%	0	100%										
050 - D2	1	074 - D4	0%	0	100%										
049 - D#2	1	073 - D#4	0%	0	100%										
048 - C2	1	072 - C4	0%	0	100%										
047 - B1	1	071 - B3	0%	0	100%										
046 - A#1	1	070 - A#3	0%	0	100%										
045 - A1	1	069 - A3	0%	0	100%										
044 - G#1	1	068 - G#3	0%	0	100%	2	052 - E2	0%	0	75%					
043 - G1	1	067 - G3	0%	0	100%										
042 - F#1	1	066 - F#3	0%	0	100%	2	059 - B2	-40%	80	100%					
041 - F1	1	065 - F3	0%	0	100%										
040 - E1	1	064 - E3	0%	0	100%										
039 - D#1	1	063 - D#3	0%	0	100%										
038 - D1	1	062 - D3	0%	0	100%										
037 - D#1	1	061 - D#3	0%	0	100%	2	048 - C2	-20%	0	100%	3	070 - A#3	40%	0	100%
036 - C1	1	060 - C3	0%	0	100%										

NoteMapper is developed with Delphi XE5 using the Delphi ASIO & VST framework

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Website: <http://www.codefn42.com>

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Example: Remapping MIDI from FXpansion Geist to a Synth

20

Introduction

NoteMapper is a VST plugin that allows you to map MIDI notes to other notes. Each incoming note can be mapped to up to three notes, even on different MIDI channels. This allows you to, for example, let one specific note trigger drum sounds in up to three different drum samplers. In addition, you can scale the note velocity, apply randomization to the velocity scaling, and set a note probability for each individual note.

This is useful for several purposes, for example for MIDI note conversions between different drumkits. You can also use it together with the step sequencers in for example FXpansion Geist or Audio Damage Tattoo (which can output MIDI notes, but will not let you change the MIDI output note numbers) to drive other drum instruments like Toontrack EZDrummer. Or you can map the notes generated by the step sequencer to a melodic scale and send the MIDI data to a synth.

The velocity scaling and randomization allows you to create interesting variations if your destination instrument is set to respond to velocity. Create further randomization with the note probability setting.

Key features:

- Remap MIDI notes
- Each note can be mapped to up to three notes
- Can remap notes between all 16 MIDI channels
- Filter out unwanted notes
- Automatic melodic scale assignment
- Adjust the incoming velocity by a specified percent
- Randomize the velocity scaling
- Set a note probability

System Requirements

To use NoteMapper you need a VST2 compatible 32-bit or 64-bit host running on Windows XP, Vista, 7 or 8.

NoteMapper - User Guide

Installation

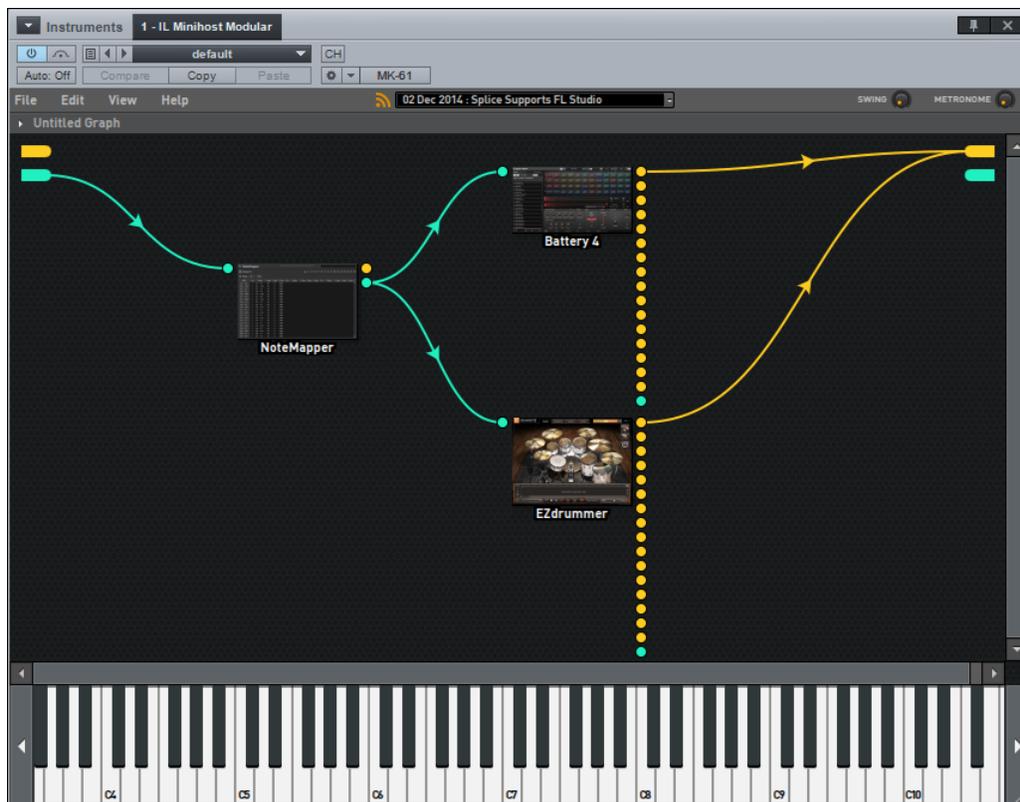
To install NoteMapper, simply open the downloaded zip file and extract the dll file to your VST plugin folder (NoteMapper32.dll if you use a 32-bit host, or NoteMapper.dll if you use a 64-bit host).

Setting up NoteMapper in your DAW

NoteMapper is a MIDI only VST plugin. It does not produce any sound of its own. You need to set it up so it receives MIDI data, and then route the MIDI output to the desired instrument(s). How easy (or even possible) it is to do this depends on your DAW's MIDI routing capabilities.

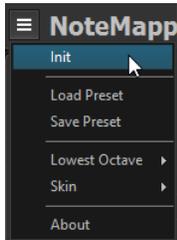
Generally, you should add NoteMapper to a new MIDI or instrument track. This is the same procedure you would follow adding any VST instrument in your DAW. Then you will have to route the output from NoteMapper to one or multiple VST instruments. If you are not sure how to do this, please refer to your DAW's documentation.

An alternative is to use the excellent (and free) [Minihost Modular](#) plugin from Image Line. Minihost Modular can be used to extend the capabilities of your DAW software with its powerful modular environment.

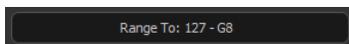


User Interface

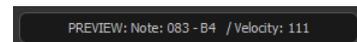
In the upper left corner of the plugin window you find the main menu. From this menu you can initialize the plugin (reset all parameters), load and save presets, customize the octave numbering, and change the current skin.



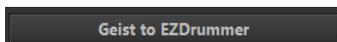
In the upper right corner you see the info panel. This shows information about the parameter you are editing.



When you preview a note, the info panel shows the note and velocity.



In the middle you see the preset button. This shows the name of the current preset (if it is named). Click this button to open the 'Load Preset' panel. For more information on how to work with presets, see the "Presets" section.



Below you find the channel and range parameters, and the note mapper grid, where you specify the properties of the individual notes.

User interface controls

NoteMapper has two basic types of user interface controls.

Numeric input boxes

For example, Range From.

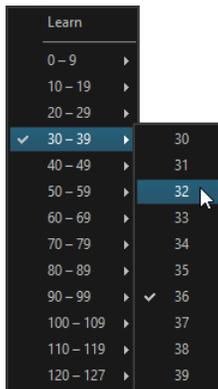


NoteMapper - User Guide

NOTE: You edit the parameters (data cells) in the note mapper grid the same way you edit the Range input boxes.

There are three ways to change the value:

- Click with the mouse, then drag up (to increase the value) or down (to decrease the value). To slow down the selection, hold down the Shift key while you drag (fine tuning).
- Position the mouse cursor over the control, then use the mouse wheel.
- Right-click and select a value from the popup menu.



Hold down the Ctrl key and click to select the default value.

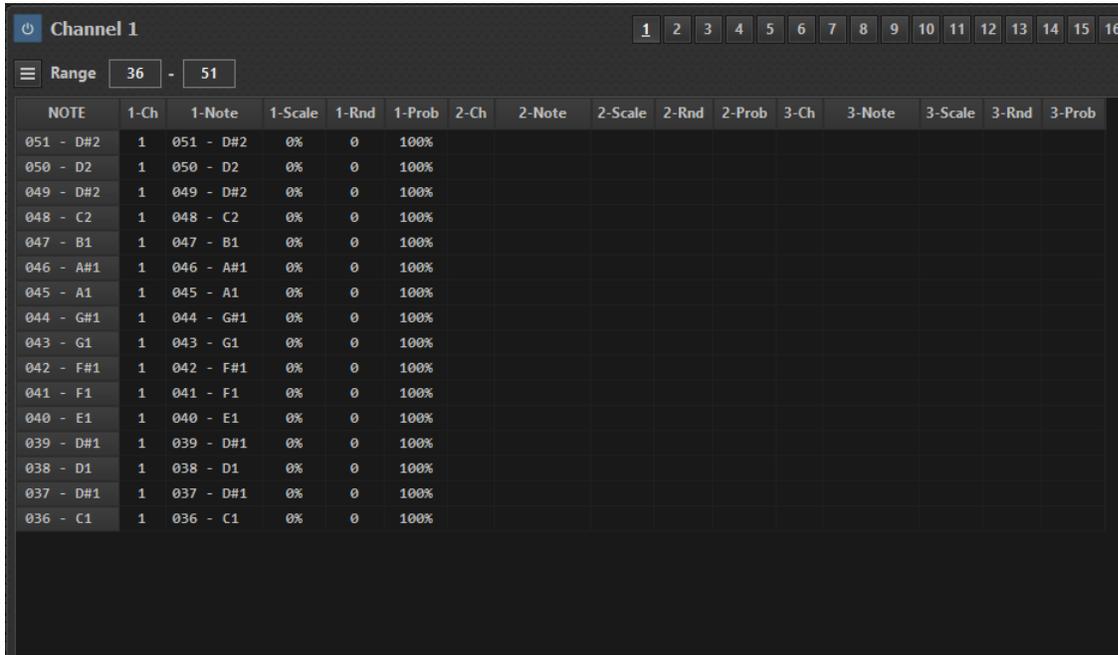
On/Off switches



Simply click to turn the switch on or off.

Editing Parameters

At the top of the main section of the plugin window you select the MIDI channel to edit, and specify the note range to process. Below you find the note mapper grid. Here you set the parameters of the individual notes in the specified note range.



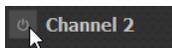
NOTE	1-Ch	1-Note	1-Scale	1-Rnd	1-Prob	2-Ch	2-Note	2-Scale	2-Rnd	2-Prob	3-Ch	3-Note	3-Scale	3-Rnd	3-Prob
051 - D#2	1	051 - D#2	0%	0	100%										
050 - D2	1	050 - D2	0%	0	100%										
049 - D#2	1	049 - D#2	0%	0	100%										
048 - C2	1	048 - C2	0%	0	100%										
047 - B1	1	047 - B1	0%	0	100%										
046 - A#1	1	046 - A#1	0%	0	100%										
045 - A1	1	045 - A1	0%	0	100%										
044 - G#1	1	044 - G#1	0%	0	100%										
043 - G1	1	043 - G1	0%	0	100%										
042 - F#1	1	042 - F#1	0%	0	100%										
041 - F1	1	041 - F1	0%	0	100%										
040 - E1	1	040 - E1	0%	0	100%										
039 - D#1	1	039 - D#1	0%	0	100%										
038 - D1	1	038 - D1	0%	0	100%										
037 - D#1	1	037 - D#1	0%	0	100%										
036 - C1	1	036 - C1	0%	0	100%										

Selecting MIDI channel

NoteMapper can process data on all 16 MIDI channels. You change the active channel with the buttons numbered 1- 16. If a channel is active, the number is underlined.



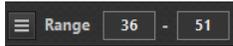
By default, only channel 1 is active. To activate or deactivate a channel, click the on/off switch to the left.



NOTE: When a channel is deactivated, all MIDI notes on this channel will pass though NoteMapper unprocessed. When a channel is activated, notes outside the specified note range will be filtered out.

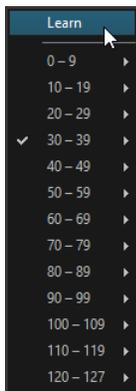
NoteMapper - User Guide

Specifying note range



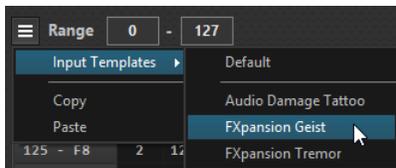
In the two Range boxes, you specify the note range you want NoteMapper to process on the selected MIDI channel (notes outside this range will be filtered out). The notes are numbered from 0 to 127. For example, to process the notes in the lowest three octaves, set the range to 0 - 36.

NOTE: You can right-click a range box and choose **Learn** from the popup menu, and then press a key on your MIDI keyboard to automatically set the corresponding note number.



The Range menu

To the left of the Range boxes you find the Range menu.



Here you can select various input templates, copy the channel setup to the Windows clipboard, and paste the channel setup on the clipboard to the active channel.

The note mapper grid

In the note mapper grid you set the parameters of the individual notes in the specified note range.

The number of rows corresponds to the note range you have specified. The highest note is at the top. The grid has 16 columns. The first column shows the incoming note

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number and note name. You can click the button in this grid cell to preview to note setup. Where you click determines the note velocity. Click along the left edge for a low velocity, and along the right edge for a high velocity.

NOTE: To specify whether the octaves are numbered from -2 to 7 (default), -1 to 8 or 0 to 9, make your selection from the main menu (Lowest Octave).

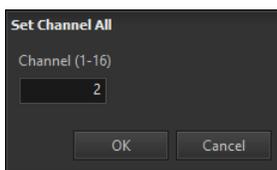
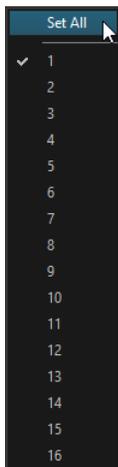


There are 5 columns for each of the 3 notes you can map an incoming note to: Channel (Ch), Note, Velocity Scale (Scale), Velocity Random (Rnd) and Note Probability (Prob).

To edit a cell value, either click and drag up or down, use the mouse wheel, or right-click and choose from the popup menu. For more information on how to edit cell values, see the "User Interface Controls" section.

Channel

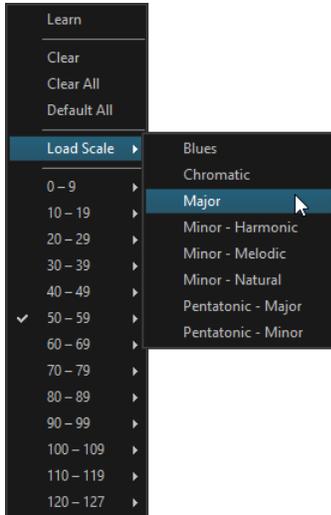
You can remap a note to any MIDI channel (1 - 16). To set the channel to the same value for all notes, right-click the Channel column and choose **Set All** from the popup menu, then specify the channel number.



NoteMapper - User Guide

Note

Here you specify the note you want to remap the incoming note to. Right-click to open a popup menu with various options.



Learn - Choose **Learn**, then press a key on your MIDI keyboard to automatically set the corresponding note.

Clear - This will remove the note setup for the note you right-clicked. This means that NoteMapper to stop the incoming note, and not generate an outgoing note.

Clear All - This will remove all the note setup for all notes in the Note column you right-clicked.

Default All - Will set all notes to the default value (same result as holding down Ctrl and clicking on a cell) for all notes in the column you right-clicked.

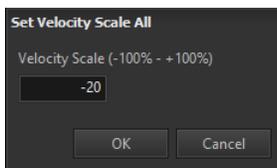
Load Scale - This allows you to load and assign a melodic scale, for example a major scale. The tonic is set to the note you right-click. For more information on how to use this function, see the "Example: Remapping MIDI from FXpansion Geist to a Synth" section.

Velocity Scale

You can scale the velocity by a specified percentage. The scaling can be set to a value between -100% and +100%.

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To set the same scaling for all notes, right-click and choose **Set All** from the popup menu, then specify the scaling in percent.

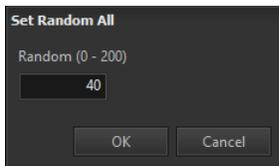


Velocity Random

You can apply randomization to make the velocity scaling more unpredictable. When you use randomization, the random value is added to the scale value to create the actual scaling percentage. For example, if you set the scaling value to -20% and the random value to 40, the actual scaling value will vary between -20% and 20%.

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To set the same random value for all notes, right-click and choose **Set All** from the popup menu, then specify the new random value.

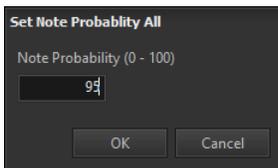


Note Probability

This determines the probability of a note being generated, in percent. Usually, you would want to keep this fairly high (above 90%).

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To set the same note probability for all notes, right-click and choose **Set All** from the popup menu, then specify the new note probability.



Presets

To save a preset

1. Open the main menu and choose **Save Preset**.
2. Type the name you want to give the preset, and click **OK**.

The preset button shows the name of the preset you just saved.

NOTE: If you name the preset "**init**", it is automatically used when you choose Init from the main menu to reset the plugin parameters, or when you create a new instance of the plugin.

To load a preset

1. Either open the main menu and choose **Load Preset**, or click the preset button. You see the 'Load Preset' panel.
2. Select the preset you want to load and click **OK** (or you can simply double-click the preset name).

The preset button now shows the name of the preset you just opened.

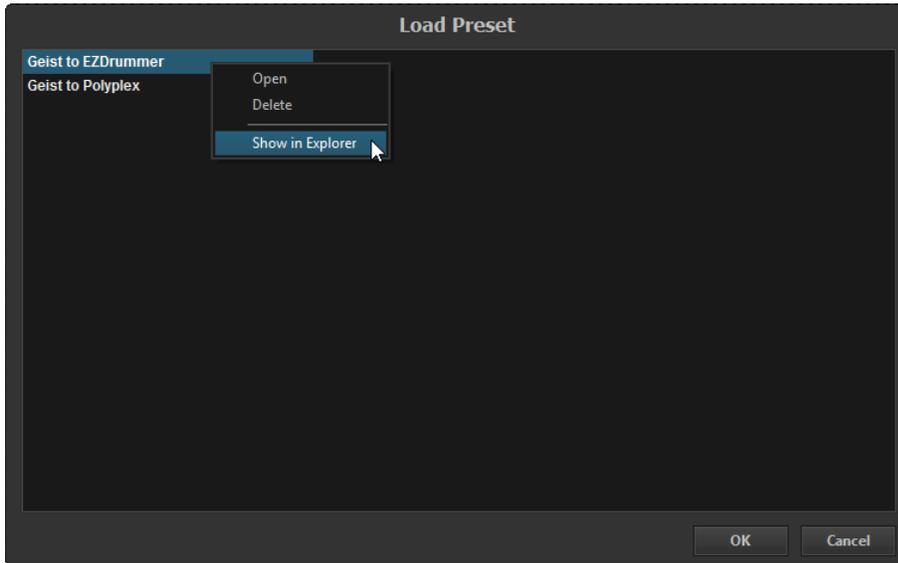
To delete a preset

1. Open the 'Load Preset' panel.
2. Right-click the preset you want to delete, and choose **Delete** from the popup menu.

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To open the presets folder

1. Open the 'Load Preset' panel.
2. Right-click the preset list and choose **Show in Explorer** from the popup menu.



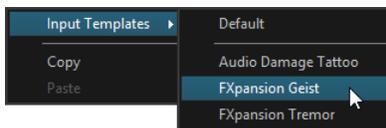
The presets are stored in a folder named '\\CodeFN42\\NoteMapper\\Presets' in your 'Documents' folder.

Example: Remapping MIDI from FXpansion Geist to Native Instruments Polyplex

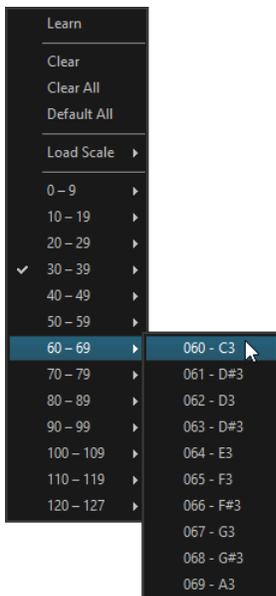
The MIDI output from Geist is hardcoded to MIDI notes 36 (C1) to 51 (D#2), and while one can edit the notes assigned to each pad in Polyplex, the lowest possible note is 60 (C3). With NoteMapper it is easy to remap the notes from Geist to match Polyplex.

For this example to work, load one instance of Geist, and two instances of Polyplex. Set the first instance of Polyplex to receive MIDI on channel 1 and the second instance to receive MIDI on channel 2. Route the MIDI output from Geist to NoteMapper, and the output from NoteMapper to both instances of Polyplex.

First, you need to set the input range to 36 - 51. To do this, simply open the Range menu and choose **Input Template => FXpansion Geist**.



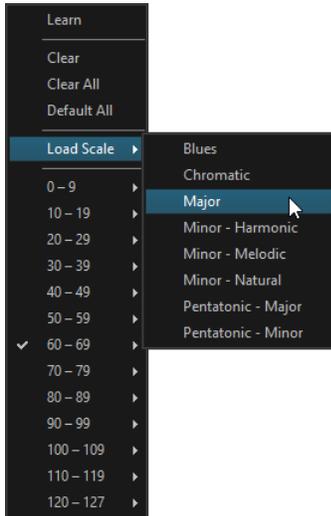
For input note 036 (C1), set the output note to 060 (C3).



To set the rest of the output notes, we can use the Load Scale function. By default, the 8 pads in Polyplex is set to white keyboard keys (C3 to C4). You can therefore load the

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Major scale to automatically set the output notes for the other input notes. To do this, right-click the "060 - C3" cell, and choose **Load Scale => Major** from the popup menu.



Polyplex only has 8 pads, while Geist has 16. Right now, only pad 1 - 8 in Geist will trigger notes in Polyplex. You can use the Channel parameter to send output from pad 9 - 16 to another instance on Polyplex.

To do this, first set the Channel to 2 for input notes 44 to 51. Then, you need to set the output notes from C4 to D5. In this case you cannot use the Load Scale function since this will update all output notes, so you will have to do this manually.

The setup should now look like this:

NOTE	1-Ch	1-Note	1-Scale	1-Rnd	1-Prob
051 - D#2	2	072 - C4	0%	0	100%
050 - D2	2	071 - B3	0%	0	100%
049 - D#2	2	069 - A3	0%	0	100%
048 - C2	2	067 - G3	0%	0	100%
047 - B1	2	065 - F3	0%	0	100%
046 - A#1	2	064 - E3	0%	0	100%
045 - A1	2	062 - D3	0%	0	100%
044 - G#1	2	060 - C3	0%	0	100%
043 - G1	1	072 - C4	0%	0	100%
042 - F#1	1	071 - B3	0%	0	100%
041 - F1	1	069 - A3	0%	0	100%
040 - E1	1	067 - G3	0%	0	100%
039 - D#1	1	065 - F3	0%	0	100%
038 - D1	1	064 - E3	0%	0	100%
037 - D#1	1	062 - D3	0%	0	100%
036 - C1	1	060 - C3	0%	0	100%

Click the button in the NOTE column to preview the setup.

If you want, you can now experience with the randomization features.

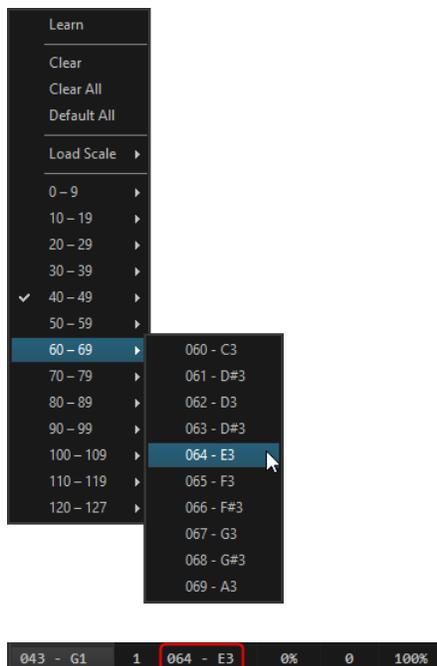
Example: Remapping MIDI from FXpansion Geist to a Synth

You can also use the MIDI output from Geist to drive a synth. Load once instance of Geist and any synth. Route the MIDI output from Geist to NoteMapper, and the output from NoteMapper to the synth.

First, set the input range to 36 - 51 by opening the Range menu and choosing **Input Template => FXpansion Geist**.

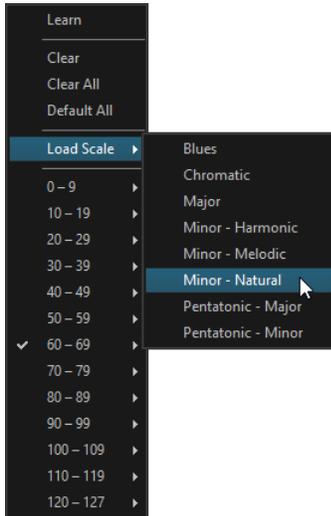
You then need to choose a melodic scale, the scale tonic and which pad in Geist to assign the tonic to. In this example, we will use the E Minor Natural scale, and assign note 64 (E4) to pad 8 in Geist (output note 43).

For input note 043 (G1), set the (first) output note to 064 (E3).



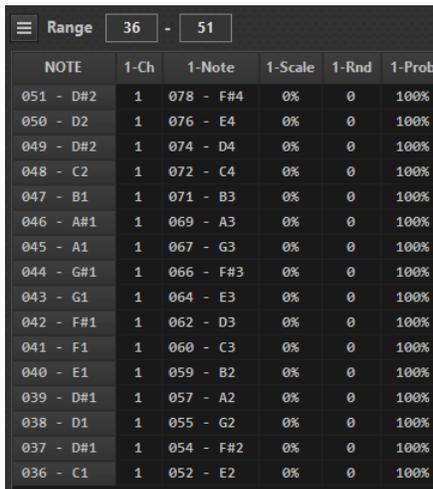
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Then, right-click this note cell and choose **Load Scale => Minor - Natural** from the popup menu.



The 16 pads in Geist will now send out notes E2 (pad 1) to F#4 (pad 16).

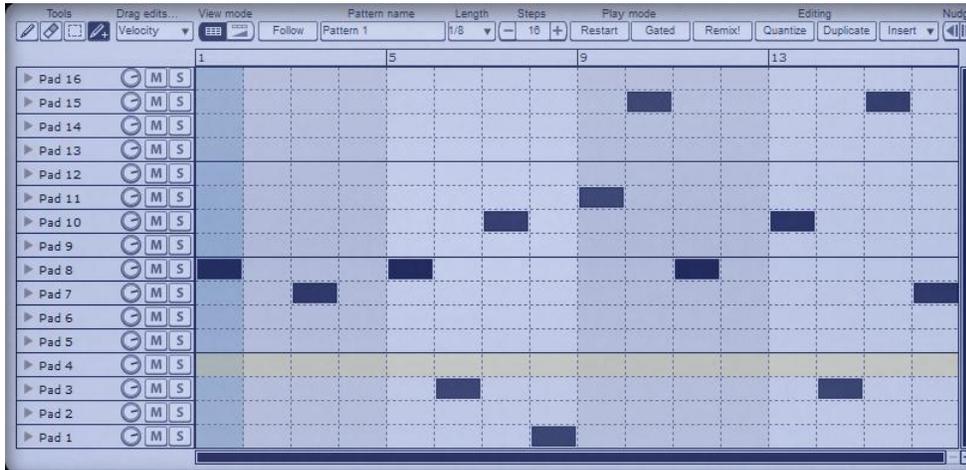
The setup should now look like this:

A screenshot of the NoteMapper software interface showing a table of note assignments. The table has columns for 'NOTE', '1-Ch', '1-Note', '1-Scale', '1-Rnd', and '1-Prob'. The 'Range' is set to '36 - 51'. The table lists 16 rows of data, each representing a pad and its assigned note and scale.

NOTE	1-Ch	1-Note	1-Scale	1-Rnd	1-Prob
051 - D#2	1	078 - F#4	0%	0	100%
050 - D2	1	076 - E4	0%	0	100%
049 - D#2	1	074 - D4	0%	0	100%
048 - C2	1	072 - C4	0%	0	100%
047 - B1	1	071 - B3	0%	0	100%
046 - A#1	1	069 - A3	0%	0	100%
045 - A1	1	067 - G3	0%	0	100%
044 - G#1	1	066 - F#3	0%	0	100%
043 - G1	1	064 - E3	0%	0	100%
042 - F#1	1	062 - D3	0%	0	100%
041 - F1	1	060 - C3	0%	0	100%
040 - E1	1	059 - B2	0%	0	100%
039 - D#1	1	057 - A2	0%	0	100%
038 - D1	1	055 - G2	0%	0	100%
037 - D#1	1	054 - F#2	0%	0	100%
036 - C1	1	052 - E2	0%	0	100%

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You can now use the step sequencer in Geist to program a melodic pattern. For example (E3, D3, E3, G2, G3, E2, A3, E4, E3, G3, G2, E4, D3):



You may also want to apply some randomization in NoteMapper by editing the Velocity Scale, Velocity Random and Note Probability columns.