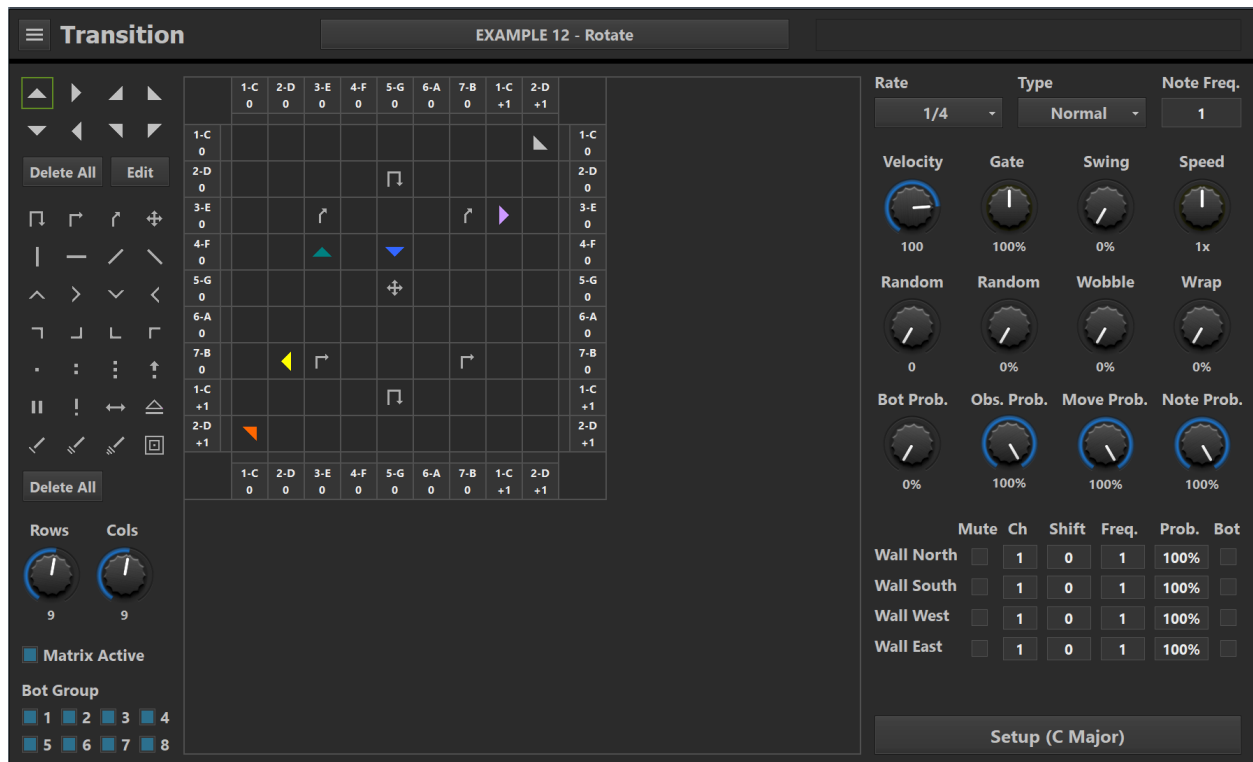


# Transition

## User Guide



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### Introduction

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Transition is a generative MIDI sequencer. The basic idea is that bots move through a matrix of cells until they encounter a wall, another bot, or an obstacle.

When a bot hits a wall it will trigger a note, or a chord. The note/chord is based on the scale degree and octave settings of the wall cell. The output can be transposed up or down within the selected scale by incoming MIDI notes.

When a bot crashes with another bot they will both change direction. When a bot encounters an obstacle the effect on the bot is based on the type of obstacle (for example it can change direction, jump to another part of the matrix, change speed, or pause movement).

There are numerous settings you can edit to control the behavior of the bots and the MIDI output they generate. The various randomization features allows you to create more interesting and unpredictable output. Most of the parameters can also be automated.

Transition gives you an interesting and fun way to come up with new musical ideas. It can produce a chaotic random result, work more like a standard step sequencer, or something in between.

### System Requirements

To use Transition you need a VST2 compatible 64-bit DAW (Digital Audio Workstation) running on Windows 7 or higher.

### Installation

To install Transition, run the Setup program, or copy simply the dll file to your VST plugin folder.

### Setting up Transition in your DAW

---

Transition is a MIDI only VST plugin. It does not produce any sound of its own. You need to set it up so it can receive MIDI data (if you want to use the transpose feature), and 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 Transition 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 Transition to one, or multiple, VST instruments. If you are not sure how to do this, please refer to your DAW's documentation.

**NOTE:** For detailed instructions on how to set up MIDI routing in some popular DAWs, please see the [FAQ](#) on our website.

An alternative is to use a modular plugin that lets you route MIDI data between VST plugins, for example [DDMF Metaplugin](#), [Blue Cat PatchWork](#) or [ImageLine Minihost Modular](#).

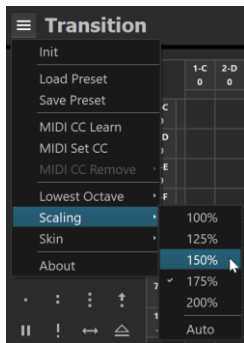
### Change scaling and skin

---

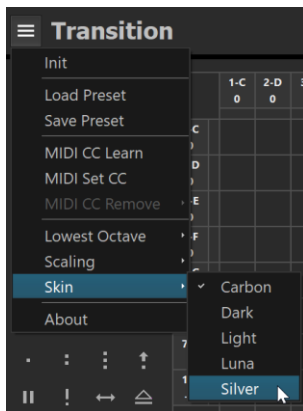
You can select between five different scalings: 100%, 125%, 150%, 175% and 200%.

In addition, you can select Auto. This will auto select scaling based on the current Windows scaling (and, if you move the plugin window between monitors with different scalings, the plugin scaling will automatically change).

To change scaling, select the desired scaling from the main menu.



You can select between five different GUI skins from the main menu.

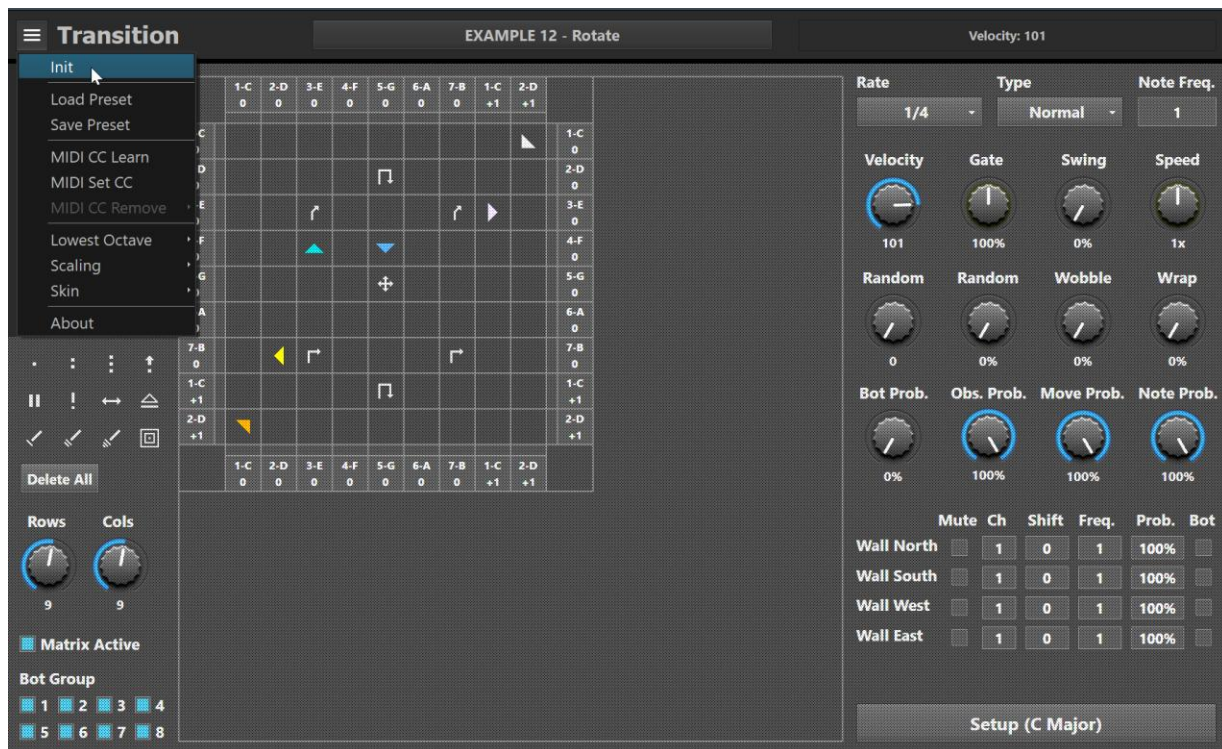


You must close and re-open the plugin window for the skin changes to take effect.

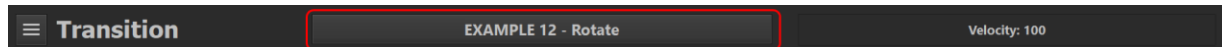
## User Interface

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, configure MIDI CC assignments, customize the octave numbering, and change GUI scaling and skin, etc.

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

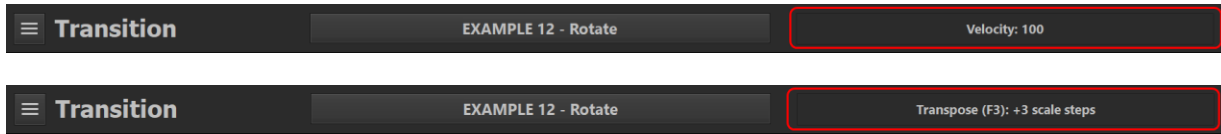


In the middle you see the preset button. This shows the name of the current preset if it is named. Click this button to open the “Load Preset” panel. For more information on how to work with presets, see the “Presets” section later in this user guide.



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In the upper right corner you find the info panel. This shows information about the parameter you are editing, and whether the MIDI output is being transposed or not.



Below you find the main section with the parameters you can edit.

Click the Setup button (which also shows the currently selected scale) to open the “Setup” panel where you can edit scale, tonic and base octave, and other global settings.

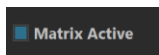
Click the Edit button to open the “Edit Bots” panel where you can edit parameters specific to a single bot.

### User interface controls

There are four basic types of user interface controls. You find more information about the various parameters you can modify in the “Editing Parameters” section.

#### Check boxes

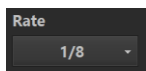
For example, Matrix Active.



Simply click to turn the parameter on or off.

#### Drop-down menus

For example, Rate.



To select a value, simply click, then select from the drop-down menu.



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

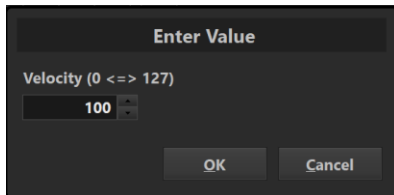
### Knobs

For example, Velocity.



Click and drag down to decrease the value, or drag up to increase the value. To slow down the selection, hold down the Shift key while you drag (fine tuning). You can also use the mouse wheel to change the value.

To enter a specific value, double-click the knob, or right-click and choose **Enter Value** from the popup menu.



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

### Numeric input boxes

For example, Note Frequency.

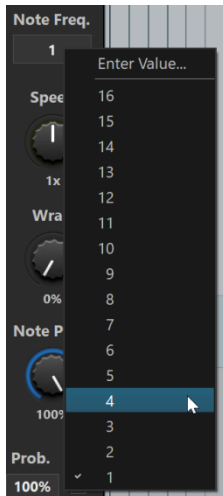


There are three ways to change the value:

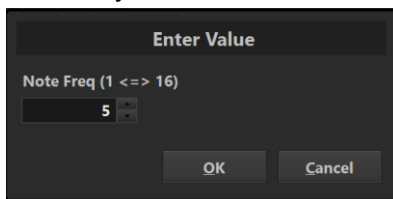
- Click with the mouse, then drag up (to increase the value) or down (to decrease the value). To slow down the selection, hold down the Shift key while you drag (fine tuning).
- Position the mouse cursor over the control, then use the mouse wheel.

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- Right-click and select a value from the popup menu.



- Double click, or right-click and choose **Enter Value** from the popup menu, to manually enter a value.



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

### The Matrix

---

The basic idea of Transition is that bots move through a matrix of cells until they encounter a wall, another bot, or an obstacle. A bot can move in 8 directions: north, east, south, or west, or north-east, south-east, south-west, or north-west.

When a bot hits a wall it will trigger a note, or a chord. The note/chord is based on the scale degree and octave settings of the wall cell. The output can be transposed up or down within the selected scale by incoming MIDI notes.

**NOTE:** For the bots to generate notes, the DAW's transport must be playing.

When a bot crashes with another bot they will both change direction. When a bot encounters an obstacle the effect on the bot is based on the type of obstacle (for example it can change direction, jump to another part of the matrix, change speed, or pause movement).

The maximum size of the matrix is 16 by 16 cells. The minimum size is 1 by 1 cell. You change the number of rows and columns with the Rows and Cols parameters.

### Bots

There are 8 different bot types.

- ▲ **North:** Bot moves north (up).
- ▶ **East:** Bot moves east (right).
- ▼ **South:** Bot moves south (down).
- ◀ **West:** Bot moves west (left).
- ↗ **North-East:** Bot moves north-east.
- ↘ **South-East:** Bot moves south-east.
- ↙ **South-West:** Bot moves south-west.
- ↖ **North-West:** Bot moves north-west.

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### To add a new bot to the matrix

1. Click to select the bot you want to add in the “Bot Toolbox” to the left.

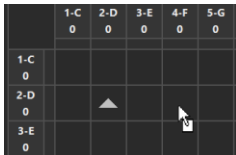


2. Click in the matrix cell you want to add the bot to.

**NOTE:** You cannot add a bot to a cell that already contains another bot, or an obstacle.

### To move a bot

1. Hold down the Ctrl key, click on the bot you want to move, then drag to the cell you want to move the bot to.



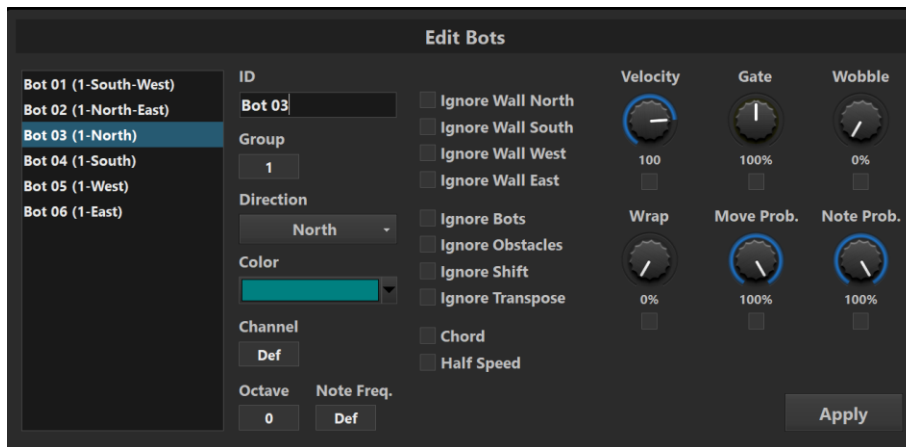
**NOTE:** You cannot move a bot when the transport is running.

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### To edit a bot

1. Double click on the bot you want to edit. This opens the “Edit Bots” panel with the bot you clicked selected in the bot list to the left.

**NOTE:** You can also click the Edit button below the “Bot Toolbox” to open this panel.

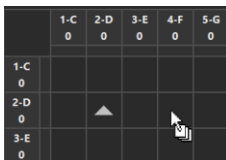


For more information about the parameters you can edit here, see the “The Edit Bots panel” section later in this manual.

2. Click the Apply button to save the changes. Click outside the panel to close it without applying the changes.

### To clone a bot

1. Hold down the Alt key, click on the bot you want to clone, then drag to the cell you want to add the new bot to.



**NOTE:** You cannot clone a bot when the transport is running.

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### To delete a bot

Simply right-click the bot you want to delete.

To delete all bots, click the Delete All button in the “Bot Toolbox”.

### Obstacles

There are 28 types of obstacles.

-  **Rotate 180:** Bot is rotated 180 degrees. For example, a bot moving north, will turn around and start moving south.
-  **Rotate 90:** Bot is rotated 90 degrees clockwise. For example, a bot moving north, will turn to the right and start moving east. A bot moving east, will start moving south.
-  **Rotate 45:** Bot is rotated 45 degrees clockwise. For example, a bot moving north, will turn halfway to the right and start moving north-east. A bot moving east will start moving south-east.
-  **Rotate Random:** Bot is randomly rotated 45, 90, 135, 180, 225, 270, 315 or 360 degrees. In other words, it will randomly select one of the 8 directions a bot can move in. There is a 12.5% (1/8) chance the bot will not change direction.
-  **Mirror North-South:** Will change the bot's direction depending on the direction it is travelling: E>W, W>E, NE>SE, SE>SW, SW>SE, and NW>NE. This obstacle will not affect bots moving north or south.
-  **Mirror East-West:** Will change the bot's direction depending on the direction it is travelling: N>S, S>N, NE>SE, SE>NE, SW>NW, and NW>SW. This obstacle will not affect bots moving east or west.
-  **Mirror North-East South-West:** Will change the bot's direction depending on the direction it is travelling: N>E, E>N, S>W, W>S, SE>NW, and NW>SE. This obstacle will not affect bots moving north-east or south-west.
-  **Mirror South-East North-West:** Will change the bot's direction depending on the direction it is travelling: N>W, E>S, S>E, W>N, NE>SW, and SW>NE. This obstacle will not affect bots moving south-east or north-west.
-  **Wedge North:** Will change the bot's direction to north. The exception is if the bot is moving south. Then there is a 1/3 chance it will continue moving south, 1/3 chance it will change direction to east, and 1/3 chance it will change direction to west.
-  **Wedge East:** Will change the bot's direction to east. The exception is if the bot is moving west. Then there is a 1/3 chance it will continue moving west, 1/3 chance it will change direction to north, and 1/3 chance it will change direction to south.

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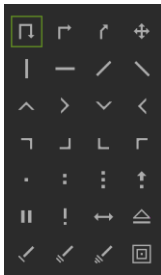
- ✓ **Wedge South:** Will change the bot's direction to south. The exception is if the bot is moving north. Then there is a 1/3 chance it will continue moving north, 1/3 chance it will change direction to east, and 1/3 chance it will change direction to west.
- < **Wedge West:** Will change the bot's direction to west. The exception is if the bot is moving east. Then there is a 1/3 chance it will continue moving east, 1/3 chance it will change direction to north, and 1/3 chance it will change direction to south.
- ↖ **Wedge North-East:** Will change the bot's direction to north-east. The exception is if the bot is moving south-west. Then there is a 1/3 chance it will continue moving south-west, 1/3 chance it will change direction to south-east, and 1/3 chance it will change direction to north-west.
- ↘ **Wedge South-East:** Will change the bot's direction to south-east. The exception is if the bot is moving north-west. Then there is a 1/3 chance it will continue moving north-west, 1/3 chance it will change direction to north-east, and 1/3 chance it will change direction to south-west.
- ↙ **Wedge South-West:** Will change the bot's direction to south-west. The exception is if the bot is moving north-east. Then there is a 1/3 chance it will continue moving north-east, 1/3 chance it will change direction to south-east, and 1/3 chance it will change direction to north-west.
- ↖ **Wedge North-West:** Will change the bot's direction to north-west. The exception is if the bot is moving south-east. Then there is a 1/3 chance it will continue moving south-east, 1/3 chance it will change direction to north-east, and 1/3 chance it will change direction to south-west.
- **Jump 1:** The bot will jump 1 cell forward.
- ⋮ **Jump 2:** The bot will jump 2 cells forward.
- ⋮ **Jump 3:** The bot will jump 3 cells forward.
- ↑ **Jump Random:** The bot will jump a random number (between 0 and 3) of cells forward. (0 means it will not jump forward at all).
- || **Wait:** The bot will wait one step before it moves again.
- ! **Toggle Speed:** This will toggle the bot's Half Speed setting. If it is current moving at normal speed, the bot will now move at half speed. If it is currently moving at half speed, it will now move at normal speed.
- ↔ **Wobble Random:** The bot will change path and move a random number of cells to the left or the right (relative to the current direction).
- △ **Start Position:** The bot will move back to the start position. That is, the same x and y coordinates, and direction, as when the transport was started.

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- ✓ **Flip 1:** The bot will flip position in the matrix, relative to the middle cell. For example, if the Flip obstacle is in the upper left cell, the bot will move to the lower right cell. If the obstacle is along the west wall in the center cell vertically, the bot will move to the center cell vertically along the east wall.
- ✓ **Flip 2:** Same of Flip 1, but the bot will change direction by 90 degrees clockwise.
- ✓ **Flip 3:** Same of Flip 1, but the bot will change direction by 180 degrees.
- **Wormhole:** The bot will move to a random cell, and also change to a random direction.

### To add a new obstacle to the matrix

1. Click to select the obstacle you want to add in the “Obstacle Toolbox” to the left.

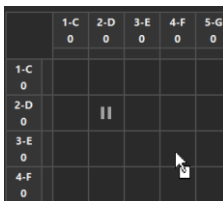


2. Click in the matrix cell you want to add the obstacle to.

**NOTE:** You cannot add an obstacle to a cell already containing another obstacle, or a bot.

### To move an obstacle

1. Hold down the Ctrl key, click on the obstacle you want to move, and drag to the cell you want to move the obstacle to.

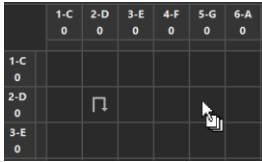


**NOTE:** You cannot move an obstacle when the transport is running.

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### To clone an obstacle

1. Hold down the Alt key, click on the obstacle you want to clone, then drag to the cell you want to add the new obstacle to.



**NOTE:** You cannot clone an obstacle when the transport is running.

### To delete an obstacle

Simply right-click the obstacle you want to delete.

To delete all obstacles, click the “Delete All” button in the “Obstacle Toolbox”.

## Walls

There are four walls, the north wall (top), the east wall (right), the south wall (bottom) and the west wall (left). When a bot hits a wall, it will generate a note, or a chord. The note/chord is based on the scale degree and octave settings of the wall cell.

The number of scale degrees is determined by the selected scale (for example, major and minor scales have 7 scale degrees, while pentatonic scales have 5 scale degrees). You change the scale type from the “Setup” panel. For more information, see the “The Setup panel” section later in this manual.

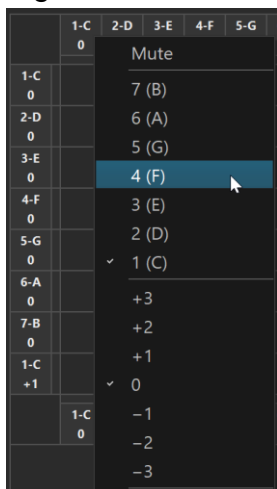
The octave (-3 to +3) is relative to the base octave you specify in the “Setup” panel.

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 7-B | 1-C | 2-D | 3-E | 4-F | 5-G | 6-A | 7-B | 1-C | 2-D | 3-E | 4-F | 5-G | 6-A | 7-B | 1-C |
| -1  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | +1  | +1  | +1  | +1  | +1  | +1  | +1  | +2  |

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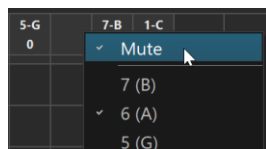
There are several ways you can specify scale degree and octave of a wall cell:

- Right-click a wall cell, and choose from the popup menu:



- Click and drag up or down with the mouse.
- Use the mouse wheel.

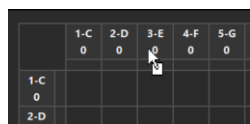
**NOTE:** You can mute a wall cell by choosing Mute from the popup menu.



### Change the note order

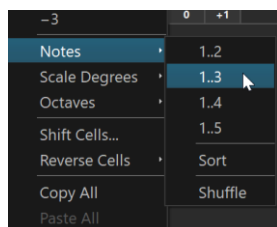
By default, the first wall cell is the tonic (scale degree 1) in octave 0 (same as the base octave). There are several ways to change the note order (“note” in this context means both scale degree and octave combined).

First of all, you can use drag-and-drop. Simply click on the wall cell you want to move, then drag to the new position (you can also drag cells between different walls). The source and target cell are swapped when you release the mouse button.



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Right-click a wall cell to display a popup menu with various options:



**1..2** – The wall cells are filled with a new note with every note in the scale in ascending order. The cell you right-clicked is the tonic of the base octave.

**1..3** – Same as 1..2, but with every second note (for example 1, 3, 5, 7, and so on).

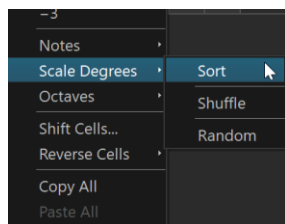
**1..4** – Same as 1..2, but with every third note (for example 1, 4, 7, 3, and so on).

**1..5** – Same as 1..2, but with every fourth note (for example 1, 5, 2, 6, and so on).

**Sort** – The notes are sorted from lowest to highest.

**Shuffle** – The order of the notes is shuffled.

### Change the scale degree order

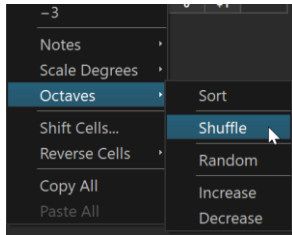


**Sort** – The scale degrees are sorted from lowest to highest. This will only affect the scale degrees, the order of the octaves is not modified.

**Shuffle** – The order of the scale degrees is shuffled.

**Random** – This will randomly generate new scale degrees.

### Change the octave order



**Sort** – The octaves are sorted from lowest to highest. This will only affect the octaves, the order of the scale degrees is not modified.

**Shuffle** – The order of the octaves is shuffled.

**Random** – This will randomly generate new octaves in the range of the lowest and highest octave currently selected. For example, if you want to keep the octave between -1 and +2, make sure -1 and +2 is the lowest and highest octave in the wall (doesn't matter which cells).

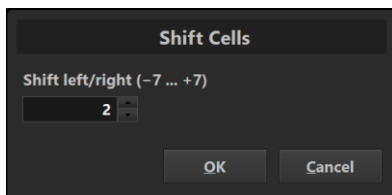
**Increase** – Increase all the octave number by 1.

**Decrease** – Decrease all the octave number by 1.

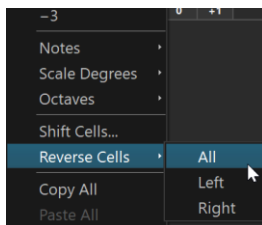
### Shift wall cells

You can shift the wall cells to the left and right (north and south wall), or up and down (east and west wall).

Choose Shift Cells from the popup menu, and specify the number of wall cells to shift (use a negative number to shift cells left or up).



### Reverse the order of wall cells



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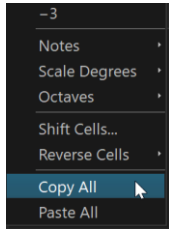
These commands will reverse the order of the wall cells.

**All** – Will reverse all the cells in the wall.

**Left/Above** – Will reverse all cells to the left/above the cell you right-clicked.

**Right/Below** – Will reverse all cells to the right/below the cell you right-clicked.

### Copy/paste wall cells

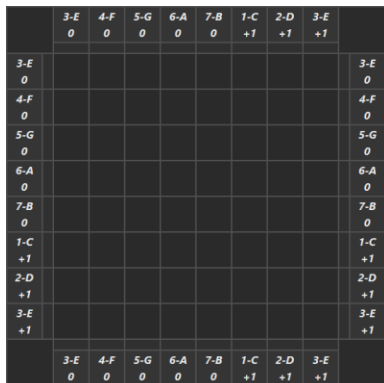


You can copy the contents of the wall cells (scale degree and octave) from one wall to another with the Copy All and Paste All commands. This can be within the same instance of Transition, or between two different instances, even in different DAW projects.

### Transposing the output

The output generated by Transition can be transposed up or down within the selected scale by an incoming MIDI note.

When the output is being transposed, the walls will show the transposed scale degree and octave in italics:

A screenshot of the Transition GUI showing a grid of wall cells. The grid is 10 columns wide and 10 rows high. The top and bottom rows, as well as the first and last columns, contain scale degree and octave information. The top row shows: 3-E 0, 4-F 0, 5-G 0, 6-A 0, 7-B 0, 1-C +1, 2-D +1, 3-E +1. The bottom row shows: 3-E 0, 4-F 0, 5-G 0, 6-A 0, 7-B 0, 1-C +1, 2-D +1, 3-E +1. The first and last columns show: 3-E 0, 4-F 0, 5-G 0, 6-A 0, 7-B 0, 1-C +1, 2-D +1, 3-E +1. The central 6x6 grid of cells is empty, representing the transposed output.

The info panel in the upper right corner of the GUI will show how to output is being transposed.

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Transpose (E3): +2 scale steps

Note that the transposition is scalar. In scalar transposition every note in the scale is shifted by a fixed number of *scale steps*.

For example, if the tonic is middle C (MIDI note number 60), and the incoming note is E above middle C (MIDI note number 64), the output is transposed up two scale steps. That is, C will be transposed up to E, E up to G, A up to C in the octave above, etc.

If the incoming note is below the tonic, for example G (MIDI note number 55), the output is transposed down three scale steps. That is, C will be transposed down to G in the octave below, F down to C, and B down to F, etc.

If the incoming transpose note is not in the scale, it will by default be ignored. You can change this behavior by setting “Transpose Trigger Outside Scale” to “Nearest” in the “Setup” panel.

# Editing Parameters

---

## The main panel

All parameters in the main panel, except Rows and Cols, can be automated.

### Rows

The number of rows in the matrix (1 to 16).

### Cols

The number of columns in the matrix (1 to 16).

### Matrix Active

This will activate/deactivate the matrix. When you deactivate the matrix, the playing notes will stop playing, and all bots will stop moving. When you activate the matrix, the bots will start moving again.

**NOTE:** Do not use your DAW's built in feature to deactivate the plugin. This may result in hanging notes.

### Bot Group 1-8

There are 8 bot groups. Each bot can be linked to one of these groups. The 8 bot group parameters allow you to enable or disable the bots in a specific group. When a group is disabled the bots will continue to move, but they will not generate any notes, nor crash with other bots.

This feature is useful if you want to slowly build up intensity. Add a few bots to each group, and only activate group 1 by default. Then you can later activate one group at time. And vice versa, you can lower the intensity by deactivating groups.

### Rate

The rate determines the length of each step. Possible values go from 1/32 (32th notes) and up to 1/1 (each step lasts one bar).

**NOTE:** The actual length of each note can be modified with the Gate parameter. When Gate is set to 100%, the note length is the same as the step length.

By default, the rate is synced to the host. Use the Speed parameter to scale the step length between 0.25x and up 4x of the rate.

### **Rate Type**

Normal, dotted or triplet time.

### **Note Frequency**

This determines how often a bot will generate a note when it hits a wall. The default value is 1, meaning a note will be generated each time a bot hits a wall. A value of 2 means that a note will be generated every second time a bot hits a wall, etc.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Velocity**

This determines the velocity value of the generated notes (a value between 0 and 127).

**NOTE:** Not all synth patches respond to velocity.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Velocity Random**

Use randomization to make the velocity more unpredictable. When you use randomization, the random value is added to the velocity value to create the actual velocity.

For example, if you set Velocity to 80 and the random value to 40, the actual velocity will vary between 80 and 120.

### **Gate**

The Gate parameter sets the length of each note as a percentage of the step length (determined by the Rate parameter).

For example, when Gate is set to 100% the note length is the same as the step length. When Gate is set to -50% the note length is half of the step length, and when Gate is set to +200% the note length is twice the step length.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

## *Transition - User Guide*

### **Gate Random**

Use randomization to make the note length more unpredictable. When you use randomization, the random value is added to the gate value to create the actual gate percentage.

For example, if you set Gate to 100% and the random value to 20%, the actual note length will vary between 100% and 120% of the step length.

### **Swing**

Swing specifies how much every other step is delayed. Setting swing to the maximum value of 100% will delay every other step by half the step length. The note is also shortened by the same amount.

### **Speed**

Use the Speed parameter to scale the step length from 0.25x and up 4x of the rate.

By default, the rate is synced to the host (when Speed is equal to 1). When Speed is less or greater than 1, the plugin is no longer synced to the DAW's tempo.

For example, if Rate is 1/8 and Speed is 0.50, the length of each step is a quarter (1/4) note.

If Rate is 1/8 and Speed is 2, the length of each step a sixteenth (1/16) note.

You can of course use Speed to set up a step length to be in-between standard rates, for example 0.90 which will give you a step length that is 10% shorter than the selected rate.

### **Wobble**

This is the probability that bots will deviate from their path, and will introduce some chaos to static patterns. When a bot wobbles it will move one cell the left or right (relative to the current direction) for each step.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Wrap**

This determines the probability that bots will pass through a wall, and wrap around to the other side of the matrix rather than hitting the wall, generate a note and turn around 180 degrees.

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**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Bot Probability**

This determines the probability of a bot crashing with another bot and changing direction.

### **Obstacle Probability**

This determines the probability of a bot being affected by an obstacle.

### **Move Probability**

This determines the probability of a bot moving for each step.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Note Probability**

This determines the probability of a note (or chord) being generated when a bot hits a wall.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Wall/Mute**

When this is selected no notes will be generated when a bot hits this wall.

**NOTE:** You can also mute individual wall cells.

### **Wall/Channel**

The MIDI channel (1 to 16) to send the note to when a bot hits this wall.

**NOTE:** This parameter can be overwritten for each individual bot in the “Edit Bots” panel.

### **Wall/Shift**

When a bot hits a wall, the wall cells will shift left/right, or up/down, the number of times you specify here (use a negative number to shift cells left or up).

Possible values go from -8 to +8. You can also select Random. The wall will then shift by a random value.

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**NOTE:** When the Bot box is selected, the bot itself will shift instead of the wall cells.

### Wall/Shift Frequency

This determines how often the wall/bot will shift when a bot hits this wall. The default value is 1, meaning it will shift each time the wall is hit by a bot (as long as Shift is  $\neq 0$ ). A value of 2 means that the wall will shift every second time the wall is hit by a bot, and so on.

### Wall/Probability

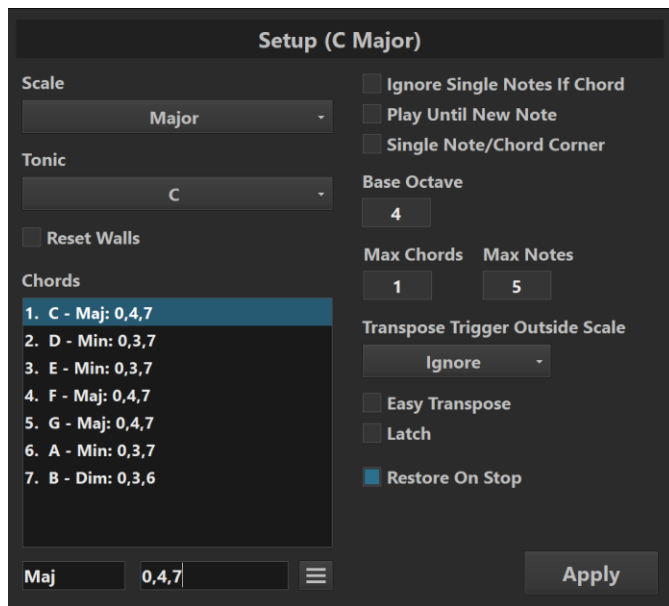
This determines the probability of the wall contents shifting when it is being hit by a wall (when Shift  $\neq 0$ ).

### Wall/Bot

When this box is selected, the bot itself will shift instead of the wall cells.

## The “Setup” panel

From the “Setup” panel you specify scale, tonic and base octave, and other global settings.



### Scale

Select the scale you want to use from this drop-down list.

### Tonic

Select the scale tonic from this drop-down list.

### Reset Walls

If you have changed either the scale or the tonic, select this box to reset the notes in the wall cells.

**NOTE:** This has the same effect as right-clicking the first wall cell, and choosing “Note Order => 1..2” from the popup menu.

### Chords

You can assign a chord to each scale degree. The chord is played if the bot's Chord parameter is activated.



The following scales have default chords assigned: Major, Minor, Harmonic Minor, Melodic Minor, Major Pentatonic and Minor Pentatonic.

You can use the arrow up / down keys to select scale degree in the chord list with the keyboard. Hold down Ctrl and press the arrow right key to open the Chord menu.

You can give each chord an ID (for example Maj or Min).



In the Notes field you specify the notes the chord consists of.



This is either zero (the root note of the chord), or a positive number (semitones above the root), or a negative number (semitones below the root).

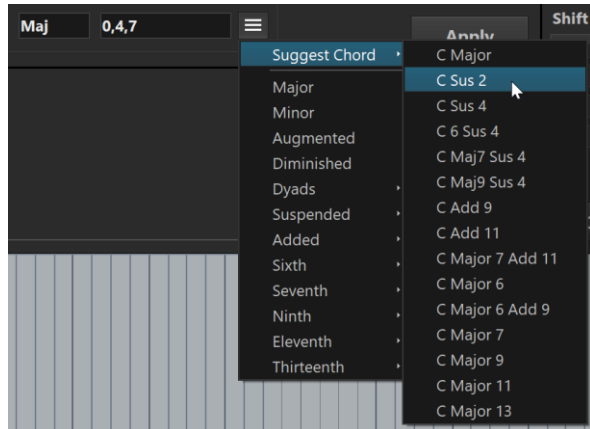
The formula for a major chord is “0,4,7”. The zero means the root note, the second note is 4 semitones above the root (the major third) and the third note is 7 semitones above

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the root (the fifth). The formula for a minor chord is “0,3,7”, the formula for a sus2 chord is “0,2,7” and the formula for a major 7th chord is “0,4,7,11”.

You can double certain notes. For example, to double the root note both one octave below and one octave above the root of a major chord, use the formula “-12,0,4,7,12”.

From the Chord menu to the right of the Notes field you can select one of the many standard chords. This will fill in both the ID and the Notes field.



### Ignore Single Notes If Chord

Select this box to ignore the single notes if both chord(s) and single notes are being generated in the same step.

### Play Until New Note

Select this box to keep playing a note until a new note is generated.

**NOTE:** This will override the Gate setting.

### Single Note/Chord Corner

Select this box to only generate one note/chord when a bot hits one of the four corners of the matrix.

By default, a bot hitting a wall corner will generate two notes/chords. For example, when a north-west bound bot hits the upper left corner, it will generate a note for both the first cell of the north wall and the west wall.

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### **Base Octave**

The base octave is the octave of the scale tonic when the octave setting of a wall cell is 0.

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

### **Max Chords**

This is the maximum number of chords that can be generated in the same step. Default value is 1.

### **Max Notes**

This is the maximum number of single (non chord) notes that can be generated in the same step. Default value is 5.

### **Transpose Trigger Outside Scale**

Choose between Ignore or Nearest. This determines whether trigger notes outside the scale are ignored, or mapped to the nearest scale note. For example, when Nearest is selected and the scale is C Major and you press D#, the note is mapped to E.

### **Easy Transpose**

When "easy transpose" is enabled, the white keys are used to transpose the output (some of the black keys will be used if the scale contains more than 7 notes). C is used to select the first scale degree, D the second scale degree, E the third, and so on.

### **Latch**

When Latch is activated, the trigger note will continue to be used until you press the same note again, or press another trigger note.

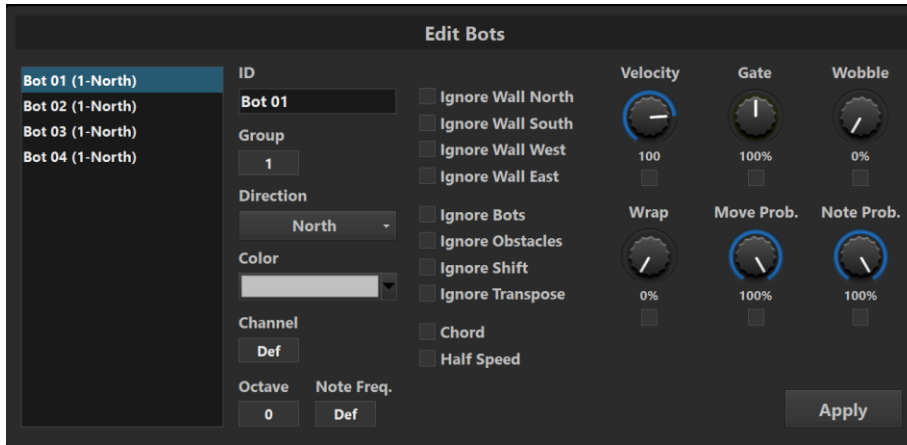
### **Restore On Stop**

This will restore the position/direction of all bots, and the order of wall cells (if shift is enabled), when the transport is stopped.

**NOTE:** If this setting is enabled and you modify the order of wall cells while the transport is running, the cell order will be reset (the cell order, NOT the scale degree and octave settings) when the transport stops.

### The “Edit Bots” panel

From the “Edit Bots” panel you modify parameters specific to a single bot.

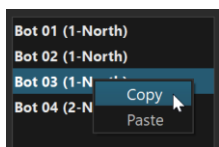


The list to the left shows all bots in the matrix. In addition to the bot ID (automatically generated, but can be edited), it shows the group the bot belongs to and the current direction.

Use the arrow up / down keys to select bot in the list with the keyboard.

You can rearrange the bot order with drag-and-drop. Note that the bot order only matters when the Max Chords and Max Notes settings are used. Bots first in the list take precedence.

You can copy all parameters (except ID) from one bot to another bot with the Copy and Paste commands available on the popup menu when you right-click a bot in the list.



#### ID

This is an ID/name you can give to each bot.

#### Group

Each bot can be assigned to one of the 8 bot groups.

The 8 bot group parameters allow you to enable or disable the bots in a specific group. When a group is disabled the bots will continue to move, but they will not generate any notes, nor crash with other bots.

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### **Channel**

The MIDI channel (1 to 16) to send the note to when the bot hits a wall. This will override the channel setting for the walls.

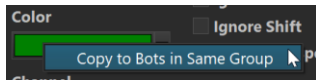
### **Direction**

From this drop-down list you can change the bot's direction.

### **Color**

You can change the color of bots.

To set the color of all bots in a group to the same color, right-click the Color parameter and choose "Copy to Bots in Same Group" from the popup menu.



### **Octave**

You can transpose the notes the bot generates by up to 3 octaves up or down.

### **Note Frequency**

This determines how often the bot will generate a note when it hits a wall. The default value is 1, meaning a note will be generated each time the bot hits a wall. A value of 2 means that a note will be generated every second time the bot hits a wall, and so on.

### **Ignore Wall North**

Select this box if you do not want this bot to generate notes when it hits the north wall.

### **Ignore Wall South**

Select this box if you do not want this bot to generate notes when it hits the south wall.

### **Ignore Wall West**

Select this box if you do not want this bot to generate notes when it hits the west wall.

### **Ignore Wall East**

Select this box if you do not want this bot to generate notes when it hits the east wall.

### **Ignore Bots**

Select this box if you do not want this bot to crash with other bots.

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### **Ignore Obstacles**

Select this box if you do not want this bot to be affected by obstacles.

### **Ignore Shift**

Select this box to ignore the shift settings for walls this bot hits.

### **Ignore Transpose**

Select this box if you do not want the notes generated by this bot to be transposed by incoming MIDI notes.

### **Chord**

Select this box to play a chord instead of a single note when the bot hits a wall.

The chord assigned to each scale degree is set up on the “Setup” panel.

### **Half Speed**

Select this box to make the bot move at half speed.

**NOTE:** This parameter is modified by the Toggle Speed obstacle.

### **Velocity**

Here you can override the global velocity setting. Make sure you also select the box below.

### **Gate**

Here you can override the global gate setting. Make sure you also select the box below.

### **Wobble**

Here you can override the global wobble setting. Make sure you also select the box below.

### **Wrap**

Here you can override the global wrap setting. Make sure you also select the box below.

### **Move Probability**

Here you can override the global move probability. Make sure you also select the box below.

### **Note Probability**

Here you can override the global note probability. Make sure you also select the box below.

## Editing User Scales

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In addition to the more than 20 scales Transition comes with, you can add your own custom scales in the Scales\_User.txt file. This file is located in the Transition data folder ('\\CodeFN42\\ Transition' in your 'Documents' folder).

Scales\_User.txt is a standard text file you can edit in any text editor (for example Notepad).

Add each scale on a separate line. First the scale name (displayed in the menu), followed by a semicolon, then for each scale degree separated by a semicolon, the root note (in semitones) relative to the tonic of the scale, the chord ID, followed by numbers to describe the chord formula in semitones, all separated by a comma.

See the next section, “Editing User Chords”, for more information on how to specify the chord formula.

For example, the major scale:

**Major;0,Maj,0,4,7;2,Min,0,3,7;4,Min,0,3,7;5,Maj,0,4,7;7,Maj,0,4,7;9,Min,0,3,7;11,Dim,0,3,6**

To create a separator item in the drop-down menu, add a hyphen on a separate line. For example:

**Prev scale...**

**-**

**Next scale...**

To create a submenu in the drop-down menu, add a greater than symbol, followed by the submenu name. For example:

**Prev scale...**

**>More Scales**

**Next scale...**

## Editing User Chords

---

Transition comes with a library of more than 50 chord types. You can add you own chords by editing the Chords\_User.txt file. This file is located in the Transition data folder ('\\CodeFN42\\ Transition' in your 'Documents' folder).

Chords\_User.txt is a standard text file you can edit in any text editor (for example Notepad).

Add each chord setup on a separate line. First the chord name (displayed in the menu), followed by a semicolon, then the chord ID, followed by the numbers to describe the chord formula in semitones, all separated by a comma.

For example, the major triad chord, minor triad chord, major seventh chord, and minor ninth chord, respectively:

**Major;Maj,0,4,7**

**Minor;Min,0,3,7**

**Major 7;Maj7,0,4,7,11**

**Minor 9;Min9,0,3,7,10,14**

"0" is the root note of the chord. "3" means three semitones (a minor 3rd) above the root, "4" means four semitones (a major 3rd), "7" means seven semitones (a 5th) and so on.

You can use negative numbers to add notes below the root. For example, to double the octave one octave below the root.

**Major;Maj,-12,0,4,7**

To create a separator item in the drop-down menu, add a hyphen on a separate line. For example:

**Prev chord...**

**-**

**Next chord...**

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To create a submenu in the drop-down menu, add a greater than symbol, followed by the submenu name. For example:

**Prev chord...**

**>Suspended**

**Next chord...**

## MIDI Control / Automation

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Transition can be remote-controlled / automated via MIDI messages from a hardware controller, or from your DAW. MIDI learn is used to assign MIDI CC (continuous controller) messages to Transition's parameters (controls).

**NOTE:** You can assign the same MIDI CC to different parameters, but you cannot assign different MIDI CCs to the same parameter.

### To assign a MIDI CC message with MIDI learn

1. Open the main menu and choose **MIDI CC Learn**.
2. Click on the control (for example the Velocity knob) you want to remote-control.
3. Move a knob or fader on your MIDI device.

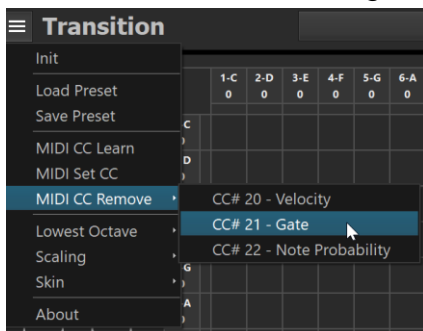
### To assign a specific MIDI CC message

1. Open the main menu and choose **MIDI Set CC**.
2. Click on the control you want assign the CC message to.
3. Enter the CC message number (from 0 to 127), and click **OK**.

This is useful if you if you know the CC message number to assign, for example a standard CC message (like CC #1 for the mod wheel), or you use [CCStepper](#) to control parameters in Transition.

### To remove a MIDI CC assignment

1. Open the main menu and choose **MIDI CC Remove**.  
This will open a sub-menu that shows all currently assigned MIDI CC messages.
2. Choose the MIDI CC assignment you want to remove.



## Presets

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### 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.

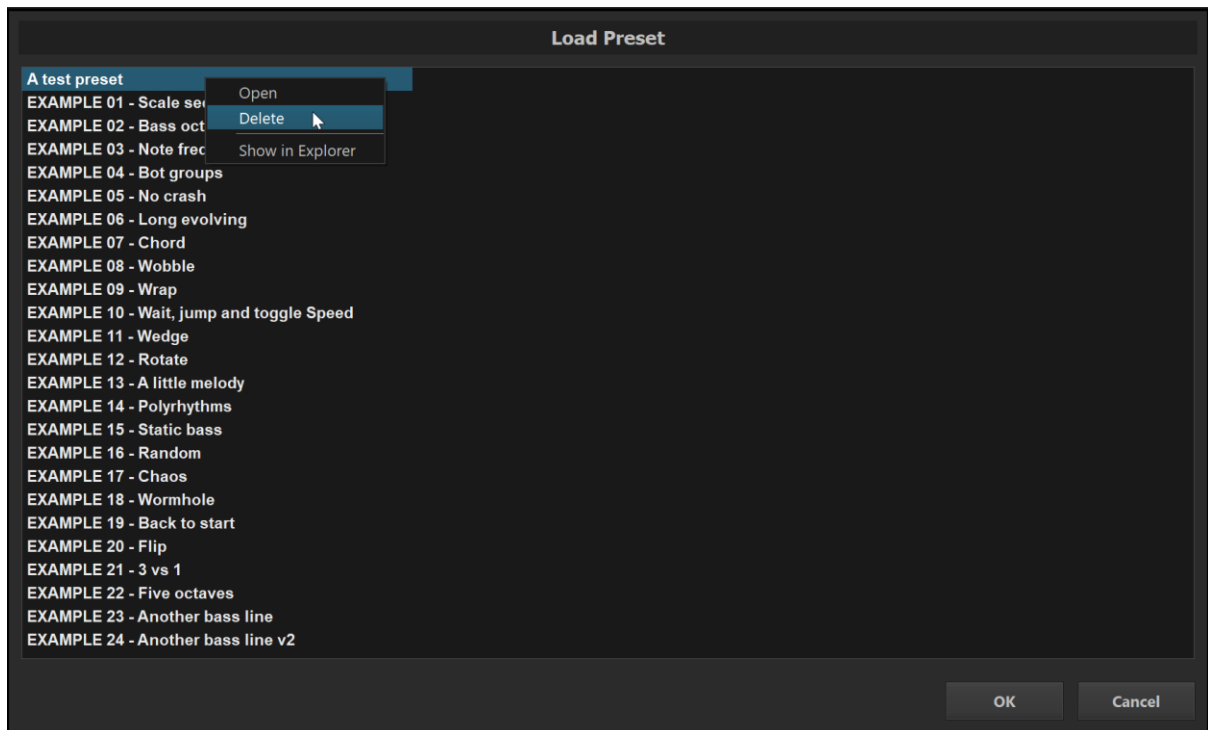
**NOTE:** If you name the preset "init", it is automatically used when you choose Init from the main menu to reset the plugin parameters, or add a new instance of the plugin.

### 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 simply double-click the preset name).  
The preset is loaded, and the preset button shows the name of the preset.

### 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.



### 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.

### To copy a preset to the clipboard

1. Open the main menu and choose **Copy Preset**.  
The preset is copied to the Windows clipboard. You can now paste it into another plugin instance.

### To paste a preset from the clipboard

1. Open the main menu and choose **Paste Preset**.  
The preset is pasted from the Windows clipboard.

### **Example Presets**

---

Various example presets showing some of the capabilities of the plugin are added to the presets folder the first time you open the plugin.

Please note that the end result will greatly vary with what kind of sound you send the output to. For example, preset #2 works best with a snappy bass, while #6 needs a long evolving pad/soundscape.

#### **EXAMPLE 01 – Scale sequence**

Up the C major scale. Try setting Wall/North/Shift to Random.

#### **EXAMPLE 02 – Bass octave**

A simple bass/octave line. Press a key on your MIDI keyboard to change note. Latch is enabled.

#### **EXAMPLE 03 – Note frequency**

Four notes, one with a different note frequency. The north wall plays the scale in descending order, the south wall in ascending order.

#### **EXAMPLE 04 – Bot groups**

Three bots in group 1, three bots in group 2. By default, only group 1 is active. Select Bot Group 2 to bring in all bots. Bots in group 2 plays one octave higher. Gate is set to 200%, meaning note length is twice the step length.

#### **EXAMPLE 05 – No crash**

Bots moving both north/south, and east/west, no crashes. The two east/west bots generate notes one and two octaves lower respectively.

#### **EXAMPLE 06 – Long evolving**

One bot moving slowly with a random bot shift at the north wall. “Play Until New Note” is selected. Move Probability is set to 80%. Works best with a long evolving pad/soundscape.

#### **EXAMPLE 07 – Chord**

One bot playing a chord (with Gate set to 200%), two bots playing shorter single notes. With north and south wall is set to shift the bot one step for each hit, but the south wall with a frequency of 2 (every second hit).

### **EXAMPLE 08 – Wobble**

Wobble set to 50%, Bot Probability to 0%. East and West walls play notes one octave lower.

### **EXAMPLE 09 – Wrap**

Shows how the Wrap setting works.

### **EXAMPLE 10 – Wait, jump and toggle speed**

Shows how the Wait, Jump and Toggle Speed obstacles work.

### **EXAMPLE 11 – Wedge**

Illustrates how you can use the wedge obstacle to change the direction of bots.

### **EXAMPLE 12 – Rotate**

Illustrates how to can use the rotate obstacle to change direction of bots.

### **EXAMPLE 13 – A little melody**

Plays a little melody. Scale is set to Chromatic.

### **EXAMPLE 14 – Polyrythms**

7 notes, playing at different intervals, each note assigned to a separate group. By default, only group 1, 3 and 7 are active.

### **EXAMPLE 15 – Static bass**

Two “bass bots” playing two octaves lower than the other bots. These two bots will not crash with other bots, and will generate a static root/fifth pattern (the output of these two notes will not be transposed either).

### **EXAMPLE 16 – Random**

Velocity and Gate are both randomized.

### **EXAMPLE 17 – Chaos**

Total chaos with 52 bots. You can simplify the output with Note Frequency, Move Probability and Note Probability.

### **EXAMPLE 18 – Wormhole**

Shows how the Wormhole obstacle works.

### **EXAMPLE 19 – Back to start**

Shows how the Start Position obstacle works.

### **EXAMPLE 20 – Flip**

Shows how the Flip obstacles work.

### **EXAMPLE 21 – 3 vs 1**

Use of the Wedge, Mirror and Rotate obstacles. Three bots move north/south, one bot moves from the west to the east via the wedge, mirror and rotate obstacles, sometimes swapping position with one of the other bots. The red bot generates notes one octave lower than the other.

### **EXAMPLE 22 – Five octaves**

Notes generated spans five octaves. Bot Probability is set to 0% resulting in no bot crashes. The north/south bots are assigned to bot group 1, the two east/west bots are assigned to bot group 2.

### **EXAMPLE 23 – Another bass line**

A simple bass line playing root/fifth over two octaves. Press a key on your MIDI keyboard to change root note. Latch is enabled.

### **EXAMPLE 24 – Another bass line v2**

Similar to #23, but the second bot is moved one cell to the left changing the order of the notes, and Swing is set to 25%.

### **EXAMPLE 25 – Ignore Wall**

Four wall cells will not generate a note.

### Moving the data folder

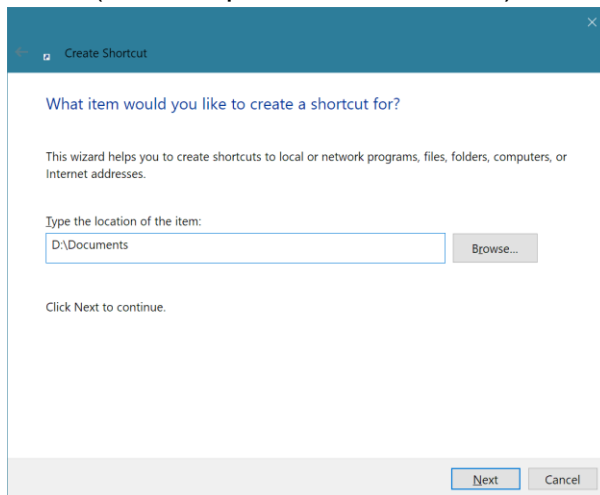
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By default, the presets, and the plugin settings, are stored in your "Documents" folder in a subfolder named "\CodeFN42\Transition".

The full path to the presets folder is usually "C:\Users\[Username]\Documents\CodeFN42\Transition\Presets".

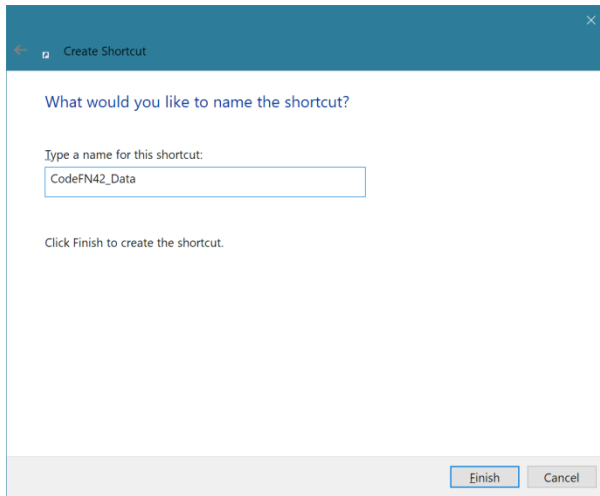
If you would like to move the data folder, you can create a shortcut file that links to a new folder location:

1. Right-click the Windows Desktop, and choose **Create Shortcut** from the popup menu.
2. In the 'Create Shortcut' window, click the **Browse** button and specify the new folder (for example "D:\Documents").



3. Click the **Next** button.

4. Name the shortcut "**CodeFN42\_Data**", then click the **Finish** button.



The shortcut file is created on your desktop.

5. You must now move this shortcut file to either the Documents folder, or the folder the plugin is located in.

When you have done so, double-click the shortcut to make sure the correct folder is opened.

**NOTE:** All plugins from CodeFN42 use the same shortcut file. In the folder the shortcut links to, the Transition settings will be stored in a subfolder named "`\CodeFN42\Transition`" and the presets in "`\CodeFN42\Transition\Preset`".

**NOTE:** You must manually move any existing preset files to the new preset folder.