

V 0.9.1

## User's Guide

[www.pulpoaudio.com](http://www.pulpoaudio.com)

# Table of Contents

Table of Modifications.....	4
Key Facts.....	5
Installation.....	6
Tentacle Player.....	6
A word on version 0.9.1.....	6
Manual Installation.....	6
Instrument Library.....	6
Manual Installation.....	6
Known Installation Issues.....	7
Messages like “Developer can’t be verified” (or so) when opening Tentacle first time on a Mac.....	7
Tentacle is not showing instruments in library tab.....	7
Downloading .ptn files saves them as “.xml”.....	8
Tentacle Player.....	9
About Tab.....	10
Messages Tab.....	10
Library Tab.....	11
Instrument Tab.....	12
Patch selection dropdown listbox.....	13
About button.....	13
Pattern name textbox.....	13
Pattern “Human amount” / “Dev 1/4s” slider.....	13
Out Combobox.....	14
Midi keyboard.....	14
PatternControl Tab.....	14
Global Controls.....	15
Activation Key.....	15
Mute Key.....	15
Stop Key.....	16
Save Button.....	16
Common controls to all sections.....	16
New.....	16
Delete.....	17
Copy.....	17
Paste.....	17
Import.....	17
Export.....	17
Move Up/Move Down.....	17
Editing a name.....	18
Genre Section.....	18
Selection Key.....	18
Style Section.....	18
Selection Key.....	18
Test.....	18
Part Section.....	18
Selection Key.....	18
Bars.....	18
Swap.....	19
Test.....	19

Variant Section.....	19
Step / Midi toggle.....	19
Test.....	19
Pattern Editor Section.....	19
Edit.....	20
Recording button.....	20
Clear.....	20
Disc. (Discard).....	20
Fix.....	20
Add.....	20
Probability.....	21
Step Editor.....	21
Beats.....	21
Learning mode.....	22
Grid.....	22
New Track.....	22
Delete Track.....	22
Beat.....	23
Key.....	23
Velo.....	23
Length beats.....	23
Midi Editor.....	25
Scrollbars.....	25
Zoom.....	25
Mouse QN.....	25
Mouse Key.....	25
Note QN.....	25
Note Key.....	25
Note Velo.....	25
Note LengthQN.....	25
Select a note.....	26
Move a note.....	26
Modify note velocity.....	26
Modify note length.....	26
Insert a note.....	26
Delete a note.....	26
Copy a note.....	26
Quantizing a note.....	26
Recording mode.....	26
Additional information.....	27
Limitations.....	27
Pattern Playing.....	28
Starting and stopping patterns.....	28
Change to patterns of other genres, styles or parts.....	28
Muting patterns.....	28
Drag & drop patterns into DAW tracks.....	29
Additional information.....	31
Contact.....	32
Copyright and Disclaimer.....	32
Copyright.....	32
Disclaimer.....	32

# Table of Modifications

Date	Version	Description
2019-06-18	0.9	Initial version
2021-01-29		Corrected installation instructions
2021-11-07	0.9.1	Updated features of 0.9.1

## Key Facts

- Sample player for TentaclePlayer instruments (download from <http://www.pulpoaudio.com>)
- Pattern Editor for creating and editing percussion patterns
- Pattern Player for playing patterns depending on a probabilistic model
- Available as Multibus (8 simultaneous stereo outputs) version only (Stereo version has been discontinued).
- Available only as VST® 3 (64 bit) and AU3 (64 bit).

Tested configurations (subject to change)

- Windows:
  - Windows 10
  - Cubase LE 9
  - Cubase LE11
- Mac:
  - Mac OS Catalina (10.15.2)
  - Logic Pro X (10.4.8)

In case of problems, please contact PulpoAudio: [pulpo@pulpoaudio.com](mailto:pulpo@pulpoaudio.com)

Tentacle Player v0.9.1 has been created using the JUCE 5 library (<http://www.juce.com>).

Tentacle Player has been released under the GPL3 license (<https://www.gnu.org/licenses/gpl-3.0.en.html>).

For source codes contact me by eMail ([pulpo@pulpoaudio.com](mailto:pulpo@pulpoaudio.com)) and i'll provide you the latest source version.

VST is a trademark of Steinberg Media Technologies GmbH, registered in Europe and other countries

# Installation

## *Tentacle Player*

### A word on version 0.9.1

As you could already see in the key features section, the 1-bus (Stereo) version of Tentacle has been discontinued. As the 8-bus version does work very well as a 1-bus (Stereo device), there's nothing to justify the additional efforts in development and mantainment of a second version.

If you've already used the 1-bus version of Tentacle 0.9.0 you can keep it. New features will appear only using Tentacle 0.9.1 (which is a 8-bus version), though. If you have made DAW projects using the 1-bus version of Tentacle 0.9.0 and would like to switch to 0.9.1, it's not very complicated: just exchange Tentacle (Stereo) for Tentacle (8-bus) in your DAW instrument track and load the instrument again from the library tab of Tentacle.

## Manual Installation

Download the Tentacle Player as ZIP file from <http://www.pulpoaudio.com>

Unzip the ZIP file and move the containing AU (.component) / VST (.dll) to the corresponding folder for your operating system:

### Windows

C:\Program Files\Common Files\VST3

### Mac

/Users/(YourUser)/Library/Audio/Plug-Ins/Components

The Tentacle Player should now appear as instrument plug-in in your DAW or host. Some DAWs or hosts may require a new scan for plug-ins in order to recognize newly added plug-ins. Please refer to your DAWs or hosts manual to learn how to do a scan.

At first start-up in a DAW, **Tentacle will automatically create the folders where the instrument library files should go** (see below: Instrument Library)

## *Instrument Library*

### Manual Installation

Download the .bin and .ptn files for an instrument from <http://www.pulpoaudio.com>.

Move the files to

#### Windows:

C:\Users\YourUser\Documents\PulpoAudio\Tentacle

#### Mac:

/Users/YourUser/Documents/PulpoAudio/Tentacle

TentaclePlayer instruments can be downloaded on our website <http://www.pulpoaudio.com>

### ***Known Installation Issues***

#### **Messages like “Developer can’t be verified” (or so) when opening Tentacle first time on a Mac.**

Funny thing. Apple seems to have changed security handling with Catalina. Thank you !  
If this message pops up for you and there is a “Open” button, just click it, everything will be fine.

If there is NO “Open” button: close the DAW, go to System Preferences -> Security, and in the lower half of the window you’ll find a hint that you’ve tried to open Tentacle.component. Allow it. Next time you start Tentacle in your DAW, the message will pop up again, but this time WITH the “Open” button. Click it, it’ll not appear again.

I’ve googled for this problem in general, and it seems that the SystemPreferences->Security approach does not work for all users/all kind of plug-ins. It worked for me, though ! Just in case it doesn’t work for you, try:

Open the Tentacle\_xbus.component with “Show contents”. OSX will pop up a similar message like the above, but with a “Open” button this time. Click it. When you have opened the .component **once**, OSX seems to remember the allowance and will not ask again.

#### **Tentacle is not showing instruments in library tab.**

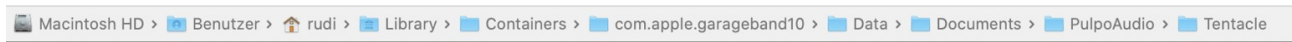
Generally, this happens because you’ve installed the instruments in the wrong folder. Pls see the installation instructions above. However, there are cases where it still doesn’t work:

It seems that there are Windows10 installations/setups where the default Documents folder is [C:\Documents](#) instead of C:\Users\YourUser\Documents\. May have something to do with user account settings on your machine, or because you sign in as admin, or whatever....

Obviously, if you then install the instruments into C:\Users\YourUser\Documents\PulpoAudio\Tentacle, **Tentacle won’t find the instruments**. Use C:\Documents\ instead. I am not sure if other scenarios like this one can happen (with even different mysterious places for the Documents folder). In any case, if you are unsure: **On its first start-up in a DAW, Tentacle will create the .....Documents\PulpoAudio\Tentacle folder automatically**. Just browse for it and you’ll find the right place where to install instruments.

Another funny instance of this “no instruments in library tab” problem is that there may be DAWs that run in a sort of sandboxed environment and provide their private interpretation

of the “Documents” folder location to the plug-ins. E.g. this has been the case with GarageBand. The “Documents” folder for GarageBand is NOT your */users/you/documents* folder but one that lies in *users/you/Library/Containers* :



If you face this problem, pls create the PulpoAudio and Tentacle folders in the location (or similar) that you can see in the above screenshot and copy the .bin and .ptn to that place.

## Downloading .ptn files saves them as “.xml”

It happens in some Firefox setups (I have this behaviour on my Mac, but not on my PC). Firefox seems to look up the content type of a file and automatically **changes the extension to “.xml”**.

Needless to say that **Tentacle is not going to show any patterns....**

For the moment I have no solution for this, other than: download as “.xml”, then rename to “.ptn”. Sorry :-)



# Tentacle Player

The Tentacle Player is a sample player (AU and VST) that can host a Tentacle Player instrument per instance and render the selected instrument to a stereo output in your DAW or host.

If you need a second instance of the same or a different TentaclePlayer instrument, just open a new TentaclePlayer in a new instrument slot of your DAW (please refer to the documentation of your DAW how to do this).

On creating a new Tentacle Player instance and opening the editor you will see the user interface consisting of

- About Tab ( Welcome !)
- Library Tab ( Select and load a Tentacle Player instrument )
- Instrument Tab ( The instrument's UI itself with all its controls )
- PatternControl Tab ( Edit patterns belonging to the loaded instrument )
- Messages Tab ( Displays system messages )

## ***About Tab***

The About Tab is just a welcome screen that displays few information (version number) about the TentaclePlayer and provides a link button to the PulpoAudio website.

The About Tab will appear whenever you create a new instance of the Tentacle Player, or if you select the About Tab intentionally.

In the case that you open a project in your DAW that contains Tentacle Player instances and open an editor of an instance (or when the DAW opens it automatically), the Instrument Tab will be shown directly.

## ***Messages Tab***

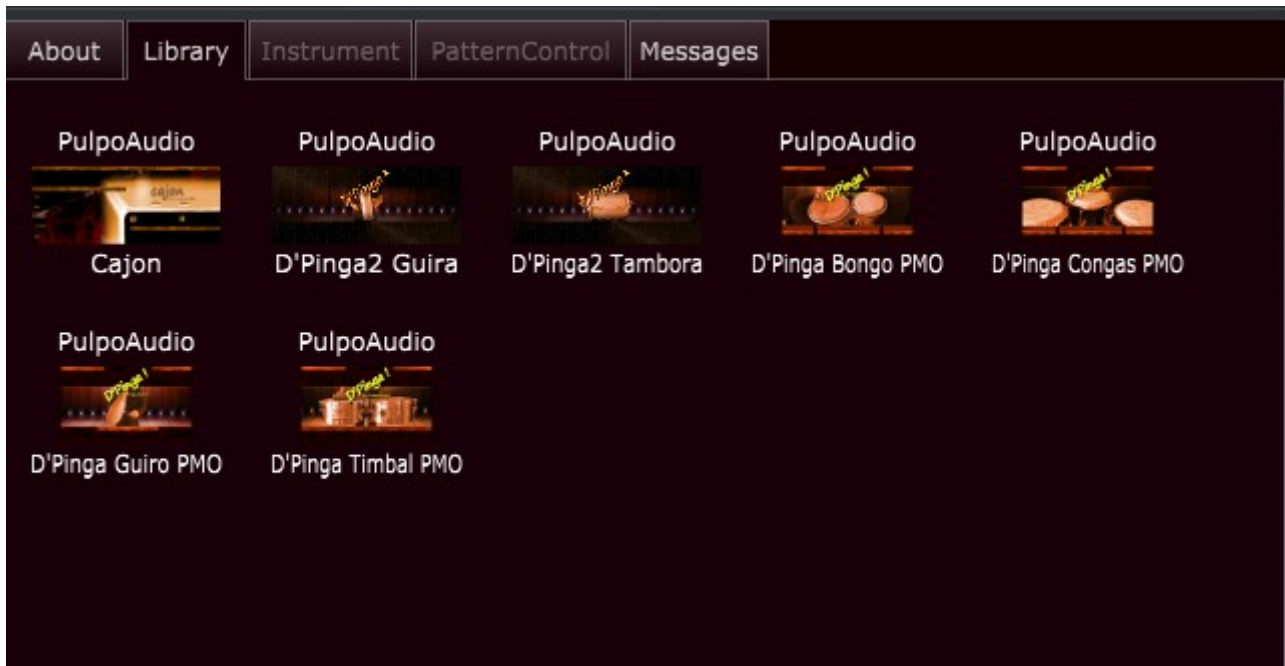
In the Messages Tab, system messages (slightly nicer word for error messages) will be displayed.

You should never see any messages here, otherwise something is terribly fu\*\*\*\* (beep) up. In this hopefully never occurring case, please contact PulpoAudio for support.

## Library Tab

The Library Tab is there to select and load a new instrument. Available Tentacle Player instruments are listed in this tab. Each available instrument shows

- Manufacturer (head line)
- Icon
- Instrument name (bottom line)



If no instruments appear in the Library Tab, this means that no instruments are installed. You can download or purchase instruments from PulpoAudio on our website

<http://www.pulpoaudio.com>

For instructions on how to install purchased instruments, please refer to section "Installation".

## Instrument Tab

The Instrument Tab shows the user interface of the loaded instrument. The look-and-feel depends on the developer of the instrument, so each instrument may have a different look and different control types.

It may also differ from instrument to instrument which controls (on a functional side) are available. While controls like “Vol” and “Pan” are pretty common, others like the “Legato”, “Envelope” or “Vol” (for key groups) controls may not be available for some instruments.

Please refer to the user's guide of the specific instrument in order to read a description of its possibilities and controls.

Nevertheless, there are some common controls on the Instrument Tab, that all instruments share.

- Patch select dropdown listbox
- About button
- Pattern name textbox
- Pattern “Human amount” slider
- Pattern “Human deviation” slider



- Multibus output Combobox

- Midi keyboard with key range / key switch / pattern info

## Patch selection dropdown listbox

Although a Tentacle Player instance covers only one instrument, it may contain several different patches, like

- the same physical instrument in different tunings (different sample set)
- the same instrument type, but different physical instrument (like if you could choose between wooden and plastic Congas)
- a copy of another patch but with different control settings (like shortened release time in envelope settings)

Common to all patches may be that they all cover the same distribution of samples to keys, so that all patterns (if available) work with all patches. (This does not apply to the old D'Pinga instruments Congas, Timbal, Bongo, Guiro).

Using the patch selection dropdown you can select between the available patches. When selecting a new patch, the used samples will be loaded into memory. A window that shows the progress of sample loading will pop up.

## About button

By clicking this button, a popup window that shows information about the current instrument will appear. It may contain information about the developer, copyrights, credits.

## Pattern name textbox

If patterns exist for the currently selected instrument, this textbox along with the two “humanize” sliders will appear. If they don't, this means that there is no pattern file available.

Once you select a pattern part to be played, the name of the pattern part will be displayed in this textbox. It will display “Genre / Style / Part”.

Please refer to the section “Playing Patterns” for a guide how to use the pattern player.

## Pattern “Human amount” / “Dev 1/4s” slider

With these two controls you can simulate timing imperfections such as real players use to have.

The “Dev 1/4s” sets the maximum possible deviation in quarter notes. Values smaller than 0.0 mean “ahead of time”, values greater than 0.0 mean “behind of time”.

Be aware that the deviation is not constant. It will be calculated randomly for each note, so some notes can be just in time, some others ahead/behind of time in the selected range. Obviously, an extreme setting to -1.0 or +1.0 will result in a mess, no real player in this world would give such an imperfect performance. So try to keep the imperfection within max. +/- a 32<sup>nd</sup> note (+/- 0.125) or less, if you want to achieve something real-world-like.

The “Human amount” slider controls how much of the imperfection is added to the performance. Also here it is advisable to use low values.  
Why the possibility to use extreme settings ? It may be fun.....

## **Out Combobox**

The multi-bus versions of the Tentacle Player allow you to route the sound that is produced by the indicated keygroup to alternative output buses (“Outs”).

In the given example you could route each drum (Conga, Tumba Mid, Tumba Lo) to a different output bus and treat them on individual stereo mixer channels.

It depends on the individual instruments definition how these keygroups are set up. This could be one keygroup per drum, but it could be a left hand/right hand grouping as well. Please refer to the corresponding instruments user guide to learn about the output bus routing possibilities.

The maximum number of individual output buses is 8 for the Tentacle (8Bus) version, and 1 for the Tentacle (Stereo) version.

## **Midi keyboard**

The virtual Midi keyboard is fully functional (as it was in the previous version of Tentacle). With version 0.9.1 it also shows:

- Instrument key range (green bar at the top)
- Key switches (blue item in the “green bar at the top”)
- Pattern activation key (purple)
- Pattern mute/stop keys (grey)
- Pattern genre keys (red)
- Pattern style keys (orange)
- Pattern part keys (yellow)

## ***PatternControl Tab***

PatternControl is the place where you edit and test patterns.

Patterns are organized hierarchically into the categories Genre, Style, Part and Variant.

So, each genre can have several styles, each style can have several parts and each part can have several variants.

The classification of patterns into genres, styles and parts has been chosen because it seems to be the most natural option to describe the relationship between a pattern and a (kind of) owner. You can, of course, use the classification differently like saying it's: Project/Song/Part/Variant. It's up to you....

While the terms genre, style and part may be clear to everybody, “Variant” needs an explanation. Let's assume that a part describes an actual pattern, like “Chorus” in a Rock song. You would play a specific pattern here, that differs from patterns that you would play in a verse or in a bridge. But of course you would not like to repeat the same pattern along 16 (or more) bars...you would play with variations, such that fit into the specific song part

and work well together. In other words: variations with subtle differences that make a pattern more lively.

So, you can add several variations of a pattern to a part. You can assign a probability (in percent) to each variant, like saying “play this variant in 70% of all cycles because it's the base pattern” or “play this variant in only 5% of all cycles because it's rather special”.



Find the actual pattern editor below the two test buttons. It can work in a (sort of) step sequencer mode or in a midi editor mode.

## Global Controls

### Activation Key

The Activation Key is the midi key that makes the pattern player listen. In the above example the activation key is A#1. So, if you press A#1 on your keyboard and hold it, all following notes (while holding the activation key) will be considered as a possible pattern player command.

When you release the activation key, processing of midi notes returns to normal.

### Mute Key

The Mute Key mutes the playing of the pattern as long as its pressed. During this time you can play normally with the instrument, e.g. if you want to insert a break or a special variation.

In the background, the patterns keep playing and selecting new variants, only that the audible output is muted.

Usage:

Press activation key and hold

Press mute key and hold

(now play some individual notes)

Release mute key

Release activation key

### **Stop Key**

The Stop Key stops the playing of patterns. Although you can stop playing by re-triggering the currently playing part (refer to the below section “Pattern Playing”), we’ve introduced this particular stop key in order to provide “Drag and drop” functionality (refer to the below section “Pattern Playing”).

Usage:

Press activation key and hold

Press stop key

Release both keys

### **Save Button**

The Save Button lets you manually save your work in PatternControl. However, when your project get saved by the DAW, the patterns get saved automatically.

The pattern file (.ptn) will not be overwritten, but copied to .ptx and newly written. This way you have at least the very last version available for a rollback.

We recommend to make a backup of your pattern files every now and then.

## **Common controls to all sections**

There are four control sections

- Genre
- Style
- Part
- Variant

which have partially different controls, but all have a listbox, a name edit field (below listbox) and a button bar with six buttons (above the listbox:

New,Delete,Copy,Paste,Import,Export).

When you select a object in one of the four list boxes (or add a new one which then gets selected automatically), the name edit field gets updated and buttons get enabled/disabled according to the current status.

### **New**



Add a new Genre/Style/Part/Variant. The new object will appear at the bottom of the list



with the name “New”.

### **Delete**



Delete the selected Genre/Style/Part/Variant. Be aware that child objects will be deleted along with their parents.

### **Copy**



Copy the selected Genre/Style/Part/Variant. The copy of this object will now be held in a buffer.

Note that now the Paste button of the section is enabled (while all other Paste buttons are deactivated).

### **Paste**



If an object copy is available in the buffer, you can paste this copy into the list. It will appear with the extension “-copy”.

You can only paste in copies of an object into a list of the same object type, but it can be pasted into (same object type)lists of different parents. E.g. you can paste variants into parts of different styles or genres.

### **Import**



You can exchange PatternControl objects with other users. If you receive a .pxc file from somebody else, you can import the containing object into a suitable parent. This means that you can import a variant into a variants list, a part into a parts list, and so on. You just have to know what exactly is the content of the .pxc file and decide where it goes into.

### **Export**



In order to exchange PatternControl objects with other users, you can export an object into a .pxc file and send this to somebody else by eMail (...or whatever...). You have to share the information what kind of object is contained in the .pxc file.

### **Move Up/Move Down**



With these two buttons you can modify the order of the objects in a list. This has no effects on the pattern player, it may just help you to arrange the objects.

### ***Editing a name***

You can edit the names of genres, styles, parts and variants. Just double click on the corresponding listbox item, make your modifications and press the Enter key.

## **Genre Section**

### ***Selection Key***

Pressing this key (while Activation Key is held) selects the selected genre for pattern playing.

Note that selecting only a genre has no effect. You have to also select a style and part.

## **Style Section**

### ***Selection Key***

Pressing this key (while Activation Key is held) selects the selected style for pattern playing.

Note that selecting only a genre and style has no effect. You have to also select a part.

### ***Test***



Pressing this button you can listen to the entire style. It'll cycle through all parts and play (only). This way you can have a quick overview of what this style, and its parts, are about.

Be aware that the patterns will be played in the tempo that is currently set in your DAW.

## **Part Section**

### ***Selection Key***

Pressing this key (while Activation Key is held) selects the selected part for pattern playing. If you have selected a genre/style before, then pattern will start to play.

### ***Bars***



You can choose whether the selected part consists of 1 bar or 2 bars. This can be very helpful when you work with rhythms that use 2 bars per cycle, like those which depend on a Clave ( 3-2 or 2-3 ). The yellow digit show the currently active setting.

## Swap



In the case that you are working with 2-bar patterns (see “Bars”), you can swap the first and second bar of all containing variants by clicking this button. This is helpful if you'd like to change clave from 2-3 to 3-2 or the other way round. If you are working with rhythms that depend on clave, you could just build your patterns in 2-3, copy/paste the entire part and swap the bars in the copy, so you'd have a 2-3 and a 3-2 version.

## Test



Pressing this button you can listen to the entire part. This means that it'll start the playing of the variants in loop. Variants will be chosen randomly depending on their probability setting.

Be aware that the patterns will be played in the tempo that is currently set in your DAW.

## Variant Section

### Step / Midi toggle



Clicking this toggle button, you switch your pattern variation type between step and midi mode. Depending on the toggle state, you will find below a (sort of) step editor or a midi editor (refer to section “Pattern Editor Section” below).

## Test



Pressing this button lets you listen to the currently selected variant in a loop.

Be aware that the patterns will be played in the tempo that is currently set in your DAW.

## Pattern Editor Section

The pattern editor has changed from its 0.9.0 version.

The major change is that you now work on a copy of the original pattern variant while you're editing. This way editing patterns is less destructive.

You'll find a button column at the right of the editor:



### ***Edit***

Clicking on this button puts the variant into editing mode. This means that a copy of the original variant is created and then presented in the editor.

Clicking on the Edit button while you are actually editing a variant stops the editing mode (discarding all changes that you've made).

### ***Recording button***

Appears only for Midi-type variants. Activates the recording mode (refer to section "Midi editor – Recording mode", below).

### ***Clear***

Clears the current available step/Midi events and leaves the copy of this variant empty.

### ***Disc. (Discard)***

Discard the changes that you've made in this variant and stop editing.

### ***Fix***

Fix the changes that you've made in this variant, take them over to the original variant and stop editing.

### ***Add***

Fix the changes that you've made (as above) but create a new variant instead of taking them over to the original variant. Stop editing.

There are two types of editors available to edit your pattern variations.

A sort of step editor that allows you to edit time-fixed note events (8ths, 16ths,...depending on your selection in "Beats"),

and a midi editor (default) that allows you to edit notes in a way that you might know from the midi editor of your DAW.

Common to both is the probability slider:

### **Probability**

Set the probability of this selected variant to a value between 0.0 (0%) and 1.0 (100%). The higher this value has been set, the more frequently this variant will be played. The selection of a variant for a new pattern cycle is made randomly according to the probability. This means that a variant that is set to 0.1 (10%) will be played in 10% of all cycles **in average**. It does **not** mean that a variant with a low probability setting cannot be selected for the 2<sup>nd</sup> cycle already....things like these may happen. It's random.

The sum of probabilities across all variants should be 100%. Algorithms that ensure the 100% automatically by redistributing probabilities upon a change have shown to do achieve this in a rather unreasonable way. So, it is the users responsibility to ensure this. The background color of the "Prob.:" label will indicate the status of the sum. It'll be

- green, if the sum is 100%
- blue, if it is lower than 100%
- red, if it is greater than 100%

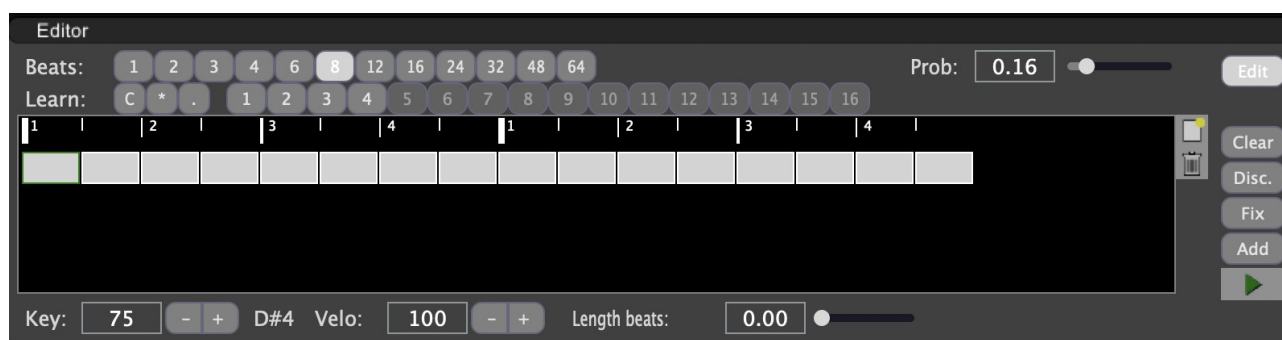
If you leave the sum lower than 100%, it can happen that a non-existing pattern variant will be chosen, hence no pattern will be played.

If you leave the sum greater than 100%, the latter variants may effectively have a lower probability than entered, hence not played as often as its probability requires, or not played at all.

While playing patterns, the variants will be chosen randomly, depending on their probabilities.

Whenever you select a (new) part while playing patterns, the very first variant in the list will be chosen for the first cycle (assuming that the first entry is your base variation).

### **Step Editor**



### **Beats**

Before you add a variant you should decide on how many strokes of equal length (beats) a bar of the variant consists. This will usually be 8 (8 8<sup>th</sup> notes) or 16 (16 16<sup>th</sup> notes). But once you decide that your variant contains triplets you should divide it into 12, 24 or 48 beats and leave blank the beats that you don't use.

Be aware that the number of beats is independent of the current time signature setting in your DAW. If you set number of beats to 8, then a bar will consist of 8 beats of equal length, no matter if you play in 2/4, 4/4, 6/8 or whatever time signature.

Be also aware that changing the number of beats when your pattern has already contain notes, will not redistribute the existing notes relatively to the new number of beats.

## Learning mode

You can activate beats for a midi learning mode. Those beats will then appear in red.

Once you hit a note on your midi keyboard, the activated beat will learn the midi information (key and velocity) and return to grey.

You can activate more than one beat(cell) for learning. The learning sequence will then be from left to right.

There is a handful of buttons on top of the pattern grid, related to the learning function:

- [C] deactivate learning on entire track
- [\*] activate learning on entire track
- [.] toggle learning on selected cell
- [1] – [16] toggle every [1-16]th beat in the selected track.

The [1]-[16] buttons are particularly helpful when you create patterns for shuffled rhythms, where e.g. one out of 3 beats is a rest. Think of a pattern with a 12-division: to activate learning for a “shuffled” model, you would activate manually every 1<sup>st</sup> and 3<sup>rd</sup> cell (= 1-3-4-6-7-9-10-12), or you click on the 1,3,4,6 buttons...the repetition is made automatically. The number of enabled toggle-learning buttons depends on the number-of-beats setting of the pattern variant.

Once beats have been selected for learning, they'll learn midi data as you press keys on your (virtual) midi keyboard.

## Grid

This is the central control of the pattern editor. The pattern grid shows the max. 4 tracks with max. 128 beats of your pattern (64 beats, 2 bars).

You can add a maximum of 4 tracks e.g. to represent the 4 extremities of a drummer, so you can play not only sequential patterns but up to 4 notes at the same time.

The number of beats in the grid is the result of number of beats (variant) by number of bars (part). You can see the breakdown to beats, quarters, eights,...in the scale above the grid.

## New Track



Adds a new track. The new track will contain “number of beats (variant) by number of bars (part)” beats. A maximum of four tracks can be added.

## Delete Track



Delete the track that is selected in the pattern grid.

Note that you actually can't select an entire track, but a beat within a track.

## **Beat**

A beat is one element/cell of the pattern grid. You can select a beat by clicking it with the mouse or by navigating through the grid with the cursor keys.

A beat contains information on if and what midi event should be triggered through it. These information is displayed in the controls "Key", "Velo" and "Length" and can be edited here.

Beats will show in grey by default, and highlighted if they actually trigger a note (when Key and Velo are greater than 0).

Ctrl-Click on a beat will reset the beat, so its note information is deleted.

Ctrl-Shift-Click will reset an entire track.

A track can appear with a blue shade. In this case there are note events at beat positions greater than "number of beats". This can happen when you shorten an existing variant e.g. from 16 to 8 beats, while it contains note events at beats 9 to 16. The entire beats information will be kept in memory, so you can go back to the old number of beats without losing the note events.

However, once you save your patterns or your DAW project, these overlapping midi events will be deleted.

## **Key**

Set the midi key for this note event (beat). A value of 0 means "no note event".

## **Velo**

Set the velocity for this note event. The range goes from 0 to 127. 0 means "no note event".

## **Length beats**

The pattern player is able to trigger note off events.

This makes sense when you think e.g. of a note that triggers longer Güiro scratch. The pattern may sound good at 120bpm but the scratch (when played to the end) may be too long for a tempo of 160. Even if the long scratch may be cut off by a succeeding note event in the same mono key group (if mono group is applied), the cut-off may sound too harsh or unnatural.

For these cases you can set a length for the note event in beats.

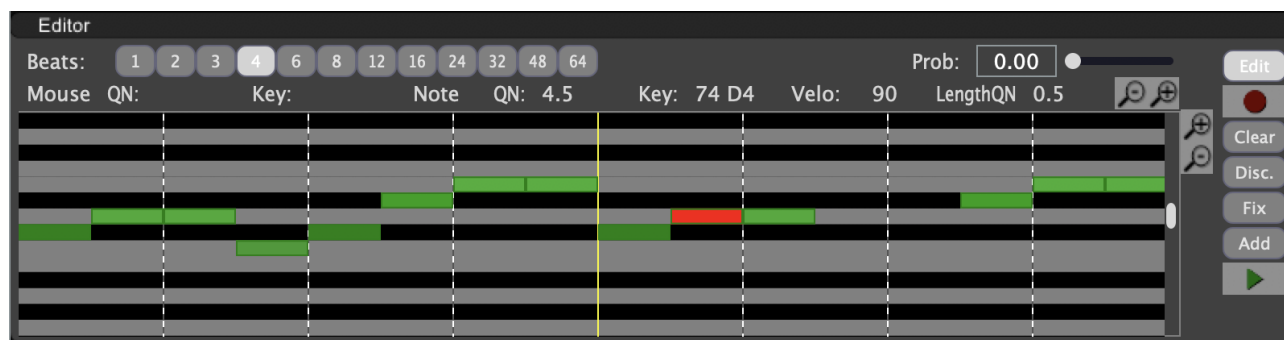
Let's assume a beat corresponds to an 8<sup>th</sup> note. On beat 1 you trigger a longer scratch, on beat 3 a different note event. So you could set the length of beat 1 to e.g. 1.75 beats. After 1.75 beats (respectively 1.75 8<sup>th</sup> notes) the note-off event will be triggered, giving the note some time to release (according envelope settings) and a little pause before the new stroke. This makes your pattern tempo-independent to some extent.

Of course, the note-off event applies only to sounds that listen to note-offs, which is set in the patch definition of the instrument. In other words, it works with sounds that also stop when you release the key on your keyboard. The kind of sounds that always play to the end, like e.g. a Tom-Tom ("one shots") don't listen to note-offs.

Please refer to the users guide to the individual instruments to learn about their implementation and possibilities.



## Midi Editor



### Scrollbars

With the scrollbars (at bottom and right to the editing area) you can scroll the editing area left/right (in time) and up/down (notes 0..127).

### Zoom



The zoom buttons (at top right) will allow you to zoom the editing area in/out horizontally (in time) and vertically (notes 0..127)

### Mouse QN

Shows the quarter note position of the mouse pointer in relation to the pattern variation (and zoom factors).

Note that time information in this editor is not shown in time frames, like you would typically expect this in a DAW midi editor, but in quarter notes !

### Mouse Key

Shows the midi key (note) where your mouse points to currently.

### Note QN

Shows the quarter note position of the selected note.

### Note Key

Shows the midi key of the selected note.

### Note Velo

Shows the velocity of the selected note.

### Note LengthQN

Shows the note length of the selected note in quarter notes.

## ***Editing***

### **Select a note**

Left click on a note. The selected note will change its colour to red and it will be played.

### **Move a note**

Left click on a note (hold) and move it across the editing area.

### **Modify note velocity**

Shift+left click on a note, then move the mouse up/down.

### **Modify note length**

Left click on the right edge of note (hold) and move the mouse right/left.

### **Insert a note**

Ctrl+left click at the desired position in the editing area. A new note will be inserted at that position.

### **Delete a note**

Shift+Ctrl+click on a note.

### **Copy a note**

Alt+left click on a note (hold), then drag the copy to the desired position in the editing area.

### **Quantizing a note**

Left click on a note (select) and then click the “Q” key on your keyboard. The note will be quantized according to the division setting in the “Beats” section (e.g. If “4” is selected, it will be quantized to 1/4 note, if “12” is selected, it will be quantized to a 1/12 note).

## **Recording mode**

The midi editor provides a DAW recording mode in order to learn pattern notes:

- Set the play cursor in the DAW to the start of a recorded pattern.
- Click on the “Record” button right to the editor.
- Start playback in your DAW (usually with the space bar).
- When the pattern (1 or 2 bars, depending on the part settings) has been played, stop playback (again space bar).
- The recorded pattern variation will be shown in the editing area.

Note: when you record pattern variations in this way, the time signature (e.g. 4/4 or 12/8) will be taken from the DAW at the current play position and saved along with the pattern variation.

Whatever modifications you make on pattern variants, don't forget to fix them by clicking the “Fix” button (...or “Add” or “Discard” ).

### ***Additional information***

Instruments that are activated for pattern playing will come with a basic set of patterns. These manufacturer patterns are not editable and will show with an asterisk (\*) before the name. If you choose to make modifications to those patterns, you will have to make a copy first. A good start is to make a copy of the entire genre. But you can also build up your own structure of genre, style and parts and copy the manufacturer objects into.

### ***Limitations***

It may occur that your DAW goes into a sort of sleep mode after a while. This happens when no midi events are triggered from “outside” (from your midi keyboard or from a midi track).

In this case you will notice that patterns are not audible when you hit one of the Test buttons.

This is a limitation of DAWs and cannot be avoided from within a VST or AU plugin.

In this case, just quickly start and stop playback (usually hitting the space key) to wake the DAW up.

## Pattern Playing

If you choose to play patterns instead of playing or programming a rhythm sequence with your DAWs possibilities, first thing to look for is the assignment of patterns to midi keys and the activation key.

If you take a look into the PatternControl screenshot, you will notice that the genre “afro-Cuban” is assigned to midi key 48 (C2), the style “Salsa” to midi key 60 (C3), the part “Verses” to midi key 72 (C4) and the pattern player activation key is 46 (A#1).

You can trigger the pattern either manually on your keyboard or you program it in a midi track and let the DAW trigger the pattern.

### ***Starting and stopping patterns***

The midi key sequence to trigger the “Verses” patterns for the first time is:

- press and hold the activation key (A#1)
- press and release C2 (for the genre Afro-Cuban)
- press and release C3 (for the style Salsa)
- press and release C4 (for the part Verses. Now, the pattern starts to play.)
- release the activation key (A#1)

If you want to stop the pattern (or start it again, afterwards), just

- press and hold the activation key (A#1)
- press and release C4 (stops the playing of part Verses)
- release the activation key (A#1)

### ***Change to patterns of other genres, styles or parts***

Note that the pattern player memorizes the genre and style information, so if you choose to play a different part of the same genre/style, just hit activation key, part selection key and release activation key. If you want to trigger patterns of a part in a different style of the same genre, hit activation key, style selection key, part selection key and release activation key.

If the patterns are triggered from the DAW (midi track), they will automatically stop when you stop playback. Be aware that in this case, pattern playing will not be triggered until the DAW hits a new activation sequence (activation key, part selection key .... and so on).

Using midi tracks to trigger patterns you can put the activation key and genre/style/part keys into your arrangement at the same timestamp (preferably start of a bar). The keys will be processed in the correct sequence.

### ***Muting patterns***

You can mute the currently played part this way:

- press and hold the activation key (A#1)

- press and hold the mute key (B1) as long as the part should be muted
- play some breaks or whatever sequences.....
- release the mute key (B1)
- release the activation key (A#1)

### ***Drag & drop patterns into DAW tracks***

A new feature that has been introduced with Tentacle 0.9.1 is dragging pattern activities into a Midi DAW track. This way you don't have to program the pattern activities in a DAW piano roll.

Everything that you see highlighted in orange colour is a draggeable item, may it be a listbox entry or a label. Just click on it, drag it onto your DAW Midi track and release the mouse key. A Midi region containing the corresponding Midi events will appear in the Midi track then.

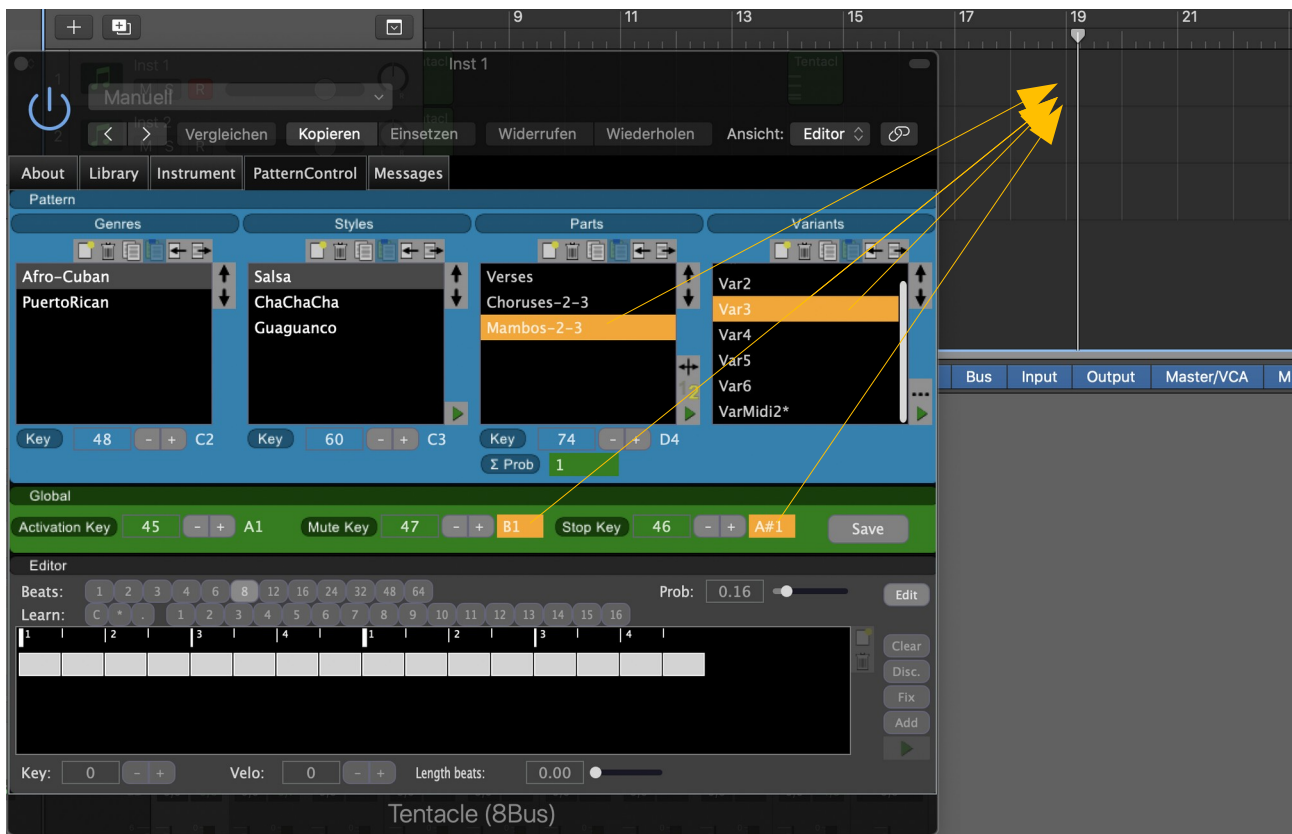
Everything described above (Starting/stopping/muting patterns) is achievable with

- (orange) entries of the Parts listbox (start/change pattern)
- (orange) stop label ("A#1" in this set-up. Stop pattern)
- (orange) mute label ("B1" in this set-up. Mute pattern)

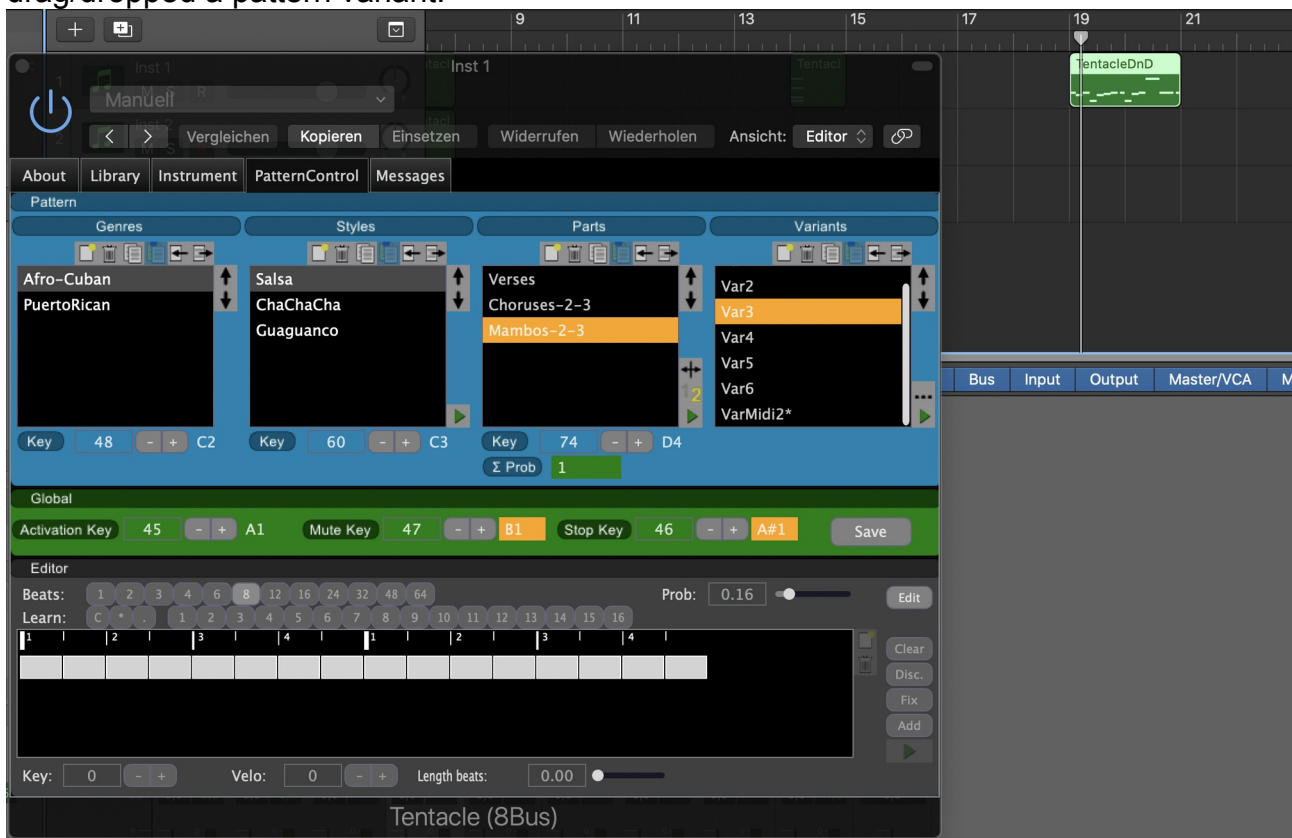
In these cases, Midi regions with the corresponding combination of activation key, genre key, etc. will be generated.

Additionally, individual variants can be drag/dropped onto your DAW midi track. In this case, a Midi region containing the notes for the actual pattern will be generated.

Drag and drop one of the 4 draggable items onto the DAW midi track:



...and a corresponding midi region will appear there. In this particular case we've drag/dropped a pattern variant.



## ***Additional information***

The pattern player will also respond to tempo / signature changes, as you program this in your project.

Although it is technically possible to use the pattern player in live performances, it is not designed for this and not recommended.

There are two reasons for this:

- You'd have to trigger pattern changes absolutely exact in time as the patterns start when you select a part. If you trigger a new part in the middle of a bar, it'll start in the middle of a bar and not wait until the previous pattern has played to the end.
- DAWs can go into a sleep mode when no midi events come from “outside” (from midi keyboard or midi track). This is a limitation of DAWs. It may be that some DAWs or hosts don't behave like that, but from our experiences at least Logic and Cubase use to do that now and then....

## **Contact**

Find us in the web: <http://www.pulpoaudio.com>

For support contact us by e-mail: [pulpo@pulpoaudio.com](mailto:pulpo@pulpoaudio.com)

## **Copyright and Disclaimer**

### ***Copyright***

Published by Rudi Leitner (PulpoAudio).

This publication is copyrighted. No part of it may be reproduced, stored in retrieval systems or transmitted in any form (electronic, mechanical, microcopying, photocopying, recording or otherwise) without the prior written permission of the copyright owner. Address enquiries by e-mail to PulpoAudio: [pulpo@pulpoaudio.com](mailto:pulpo@pulpoaudio.com)

### ***Disclaimer***

The information in this document have been carefully checked for accuracy by PulpoAudio and are presumed to be reliable. The content of this manual is subject to change without notice.

Inconsistencies due to changes in the documented instrument (for example due to new or improved features in new versions) may occur, therefore this manual should be used as a guide only.

This manual is published and distributed on the basis that the publisher is not responsible for any actions taken by users on the basis of information contained in this document, nor for any error, gap or deficit in this manual.

PulpoAudio expressly disclaims any liability and responsibility to any person in respect of claims, losses, damage or any other matter. At this it is of no importance if the accusation arises direct or consequential, out of the use or in relation to the use of this document or the documented virtual instrument.

It is PulpoAudio's goal to supply an accurate and reliable documentation. If you discover deficits in this manual, please contact PulpoAudio by e-mail: [pulpo@pulpoaudio.com](mailto:pulpo@pulpoaudio.com).