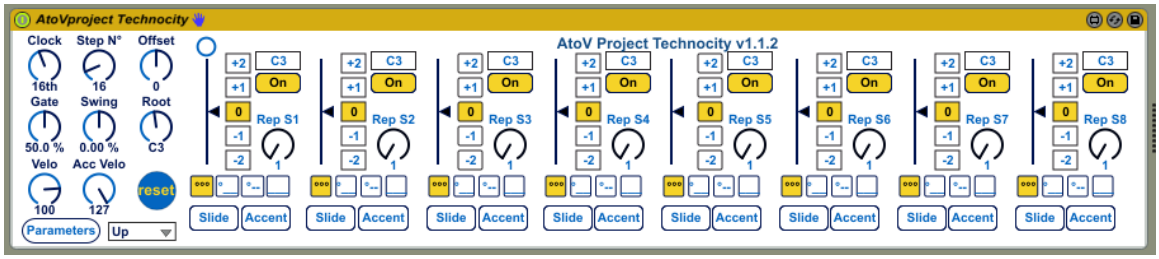
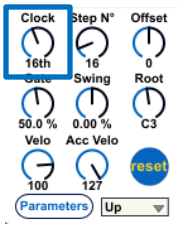
AtoVproject Technocity V1.1.2

User Manual



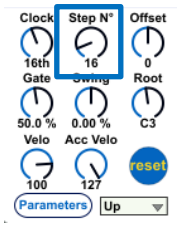
Global Parameters:

Clock



The Clock dial allows you to set at which resolution the sequencer is running. Usual 4th, 8th, 16th and 32th notes have been included but also some more unusual 12th (triplets), 20th (quintuplets), 24th (sextuplets) or 28th (seven-tuplets ??).

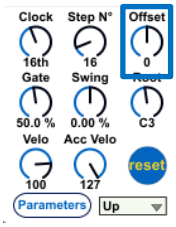
Step number



This Dial allows you to set a number of steps after which the sequencer will be reset to the 1st step.

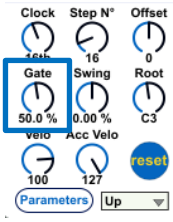
If set to 0 no reset will occur and the sequencer will run freely.

Offset



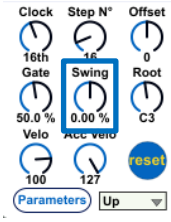
The offset allows you to shift the reset point of the sequence from the midi clock by +/-32 steps allowing you to synchronize your melody in the most efficient way possible to the rest of the track.

Gate length



Gate length corresponds to the length of the notes played by the sequencer in % (no kidding). So for example, if it is set to 50% the note off events will happen midway between two consecutive note on events. If set to 75%, the note off message will be sent at 3/4 of the space between two note on.

Swing



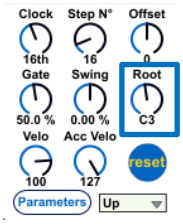
This Dial sets the amount of swing applied to the sequence. This works by shifting the pair steps.

So for example, if you set sequencer to the 8th note resolution and the swing to 33%, odd steps will be played on the beats and pair steps will be played on the last note of the triplets.

Same thing, if you set the swing at 50% the sequencer will effectively play the odd notes on the beat and the pair notes on the last 16th.

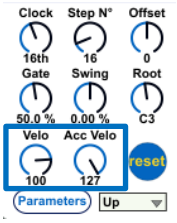
Furthermore, the swing has been set to also go in negative values. Still at a resolution of 8th, if set to -33%, pair notes will be played on the second note of the triplets and if set to -50% pair notes will play the second 16th of this beat.

Root note



Set the middle note of the stage note slider (see note slider description). Changing it will result in transposing the sequence. This parameter can be controlled by sending midi notes to the sequencer.

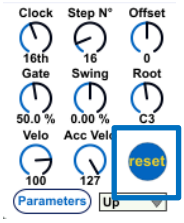
Velocity and Accented Velocity



These set the velocity of non accented and accented stages. They have been set to go from 0 to 127. And if set to 0 this actually will silence the corresponding notes.

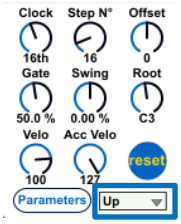
Also, nothing stops you from having higher velocity on non-accented notes rather than accented ones, it's entirely up to you!

Reset button



Clicking this button will reset the sequence at the next step. This has been implemented as a performance tool.

Sequencer running mode

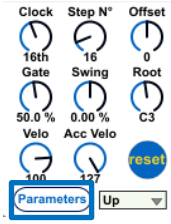


Five run modes have been implemented to the sequencer.

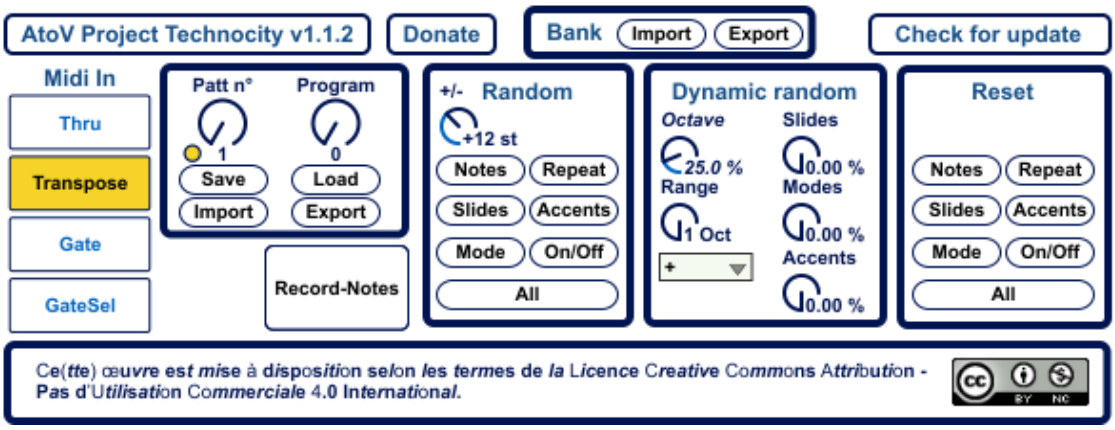
- **Up:** The sequencer will run from left to right.
- **Down:** The sequencer will run from right to left.
- **Ping-Pong:** The sequencer will run from right to left and then left to right and so on.
- **Random-Stage:** The sequencer will pick a random stage and play all its steps then another stage will be randomly selected and so on.

- **Random-Step:** The sequencer will play steps randomly. Step can be also in the middle of a sustained note, in that case the stage will be silent.

Parameter Button

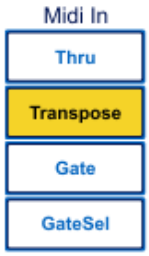


Clicking on this button allows you to open the parameter pop up menu. In this menu you'll be able to change the sequencer behavior regarding incoming midi, manage preset memories, generate random patterns and record note directly from your midi keyboard.



Parameters

Midi in behavior selector



This selector allows you to do what the incoming midi will do.

- **Thru**: This mode will set the sequencer to let through any incoming midi notes. This is useful if you want to sequence a polyphonic instrument, thus, allowing the Technocity to play a bass line while you play a lead part.
- **Transpose**: In this mode any incoming midi note will transpose the sequencer accordingly.
- **Gate**: In this mode the internal midi clock will not drive the sequencer; instead you need to send midi note for the sequencer to go from step to step. The midi notes will also transpose the sequencer. This is useful if you want to use the groove functions of Ableton Live, for example, or if you want to have non-linear sequences. It is worth noting that the clock is still active and that the reset messages will be sent as they would in the two previous modes. This allows you to have repeating sequences musically related to your track.

- **GateSel**: This mode is the same as the previous one with the detail that only one selected note will clock the sequencer. A dial will appear when this mode

is activated allowing you to select the trigger note. This is useful in case you want to trigger the notes with the bass drum of a drum machine, for example.

Pattern selection and options

This section allows you to deal with the pattern memory system.

- **Patt n° dial:** This dial allows you to select which pattern you want to edit. On the bottom left of the dial is a little indicator showing of there is a pattern saved on this slot (yellow) or if it is empty (blue).
- **Program dial:** This dial allows you to set a program change number that will be sent when the corresponding pattern is recalled. If set to 0 no program change will be sent.
- **Save & Load buttons:** These buttons allow you to save a preset dial or recall an already stored pattern on the same number (patt n° dial).
- **Import & Export buttons:** The export button allows you to save in a file on your hard drive all the current state of the sequencer. The Import button then allows you to load a State file to the sequencer, then if you wish so you can save the newly loaded state following the procedure previously descrived

It is worth noting that the memory of the sequencer and the extension are independent and the memory files should be exported and imported for each device accordingly.

Furthermore you can import and export the full memory of the sequencer. By clicking on the Bank **Import** and **Export** buttons

Random section (suggested by Chris Sessions)

The random section contains a number of buttons allowing randomization of each part of the stages.

The **Note** button will set the notes randomly. The notes will be generated in a given range around the **root note**. You can adjust the range of the notes that will be generated using the +/- dial.

Repeat will generate random number of repeat with an

exponential distribution from 8 to 1. Thus, there is more chance to have a lower number of repetitions than a bigger one.

Slides: Steps will have a 50/50% chance to be slided.

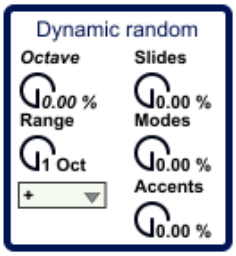
Accent: Steps will have a 50/50% chance to be accented.

Mode: Steps will have 50% chance to be in repeat mode, 25% chance to be sustained, 15% chance to be in first step mode and 10% chance to be silenced.

On/Off: Steps will have 20% chances to be turned off.

All: This button will trigger all the events described above

Dynamic Random



This section allows you to induce a certain level of randomness every time a stage is played.

Octave Randomization: The left part of this section is dedicated to Octave randomization. The Octave Dial allows you to the probability that an octave shift will happen. The Range Dial allows you to set the range of the transposition by the corresponding number of octaves. The Menu allows you to set the direction of the randomness:

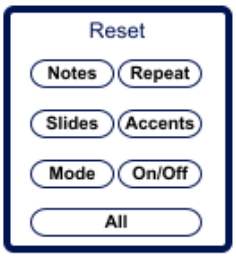
- **+:** The notes will be transposed up only
- **+/-:** The notes will be transposed either up or down
- **-:** The notes will be transposed down only

Slides: This dial allows you set the probability that slides appears randomly is the sequence. Also for stages with a slide there will be the same probability that that slide disappears.

Modes: This dial allows you set the probability that the mode of the stages will be randomly selected.

Accents: This dial allows you set the probability that accents appears randomly is the sequence. Also for accented stages, there will be the same probability that that accent disappears.

Reset Section (suggested by Chris Sessions)



This section allows you to reset the corresponding parts of the sequencer independently to their initial values.

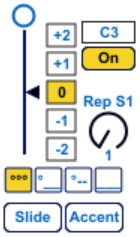
NB: The Random buttons are activate on pressing and the Reset on release. The point in to allow both function to be mapped to the same macro or dial. In this case the Random button will be activated turning the dial up and the reset going down.

Record-Notes button

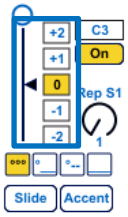
This button allows you to set the notes of the sequencer using incoming midi. Press the button to start recording. Then enter midi notes to set the notes of each stage.

The process can be stopped at any moment by clicking on the same button again.

Stages:



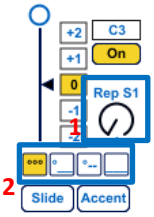
Note slider



Sets the notes of the stage. It has a two-octave range and the center note is set by the root note dial in the global parameter section.

On the right of the slider you can transposes the stage note by -2, -1, 0, +1 or +2 octaves.

Repetition number (1)



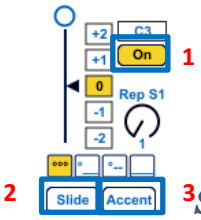
Sets how many steps one stage contains.

Mode Switch (2)

The stages can be played 4 ways:

- °°° all the steps of the stage will be played.
- °__ Only the first step of the stage will be played.
- °-- The stage play a sustained note using the note on of the first step and the note off of the last one.
- ___ The stage will be silent.

On/Off button (1)



- Sets the stage to be ignored.

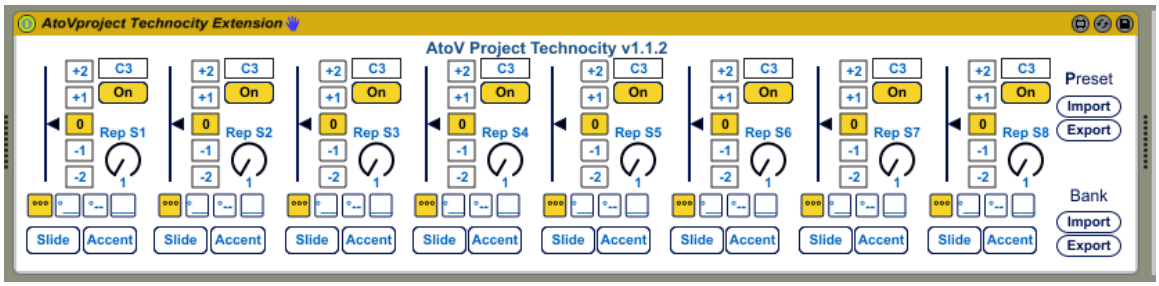
Slide button (2)

The last step of the previous stage will overlap with the first note of the stage creating a legato effect. If the instrument played by this sequencer is polyphonic then 2 notes will be played at the same time.

Accent button (3)

Allows the stage to produce a note with either the non-accented velocity or accented velocity set in the global parameter section.

Extension



This extra device allows you to add up 8 more stages to your sequencer. The clock and all the other global parameters are coming from the master device, thus the extension will not be functional without the master device.

The Import and export buttons on the right side of the device allows you to load and save sets of patterns for the extension part. As well as load and save state files. **You can only add one extension.**

Last word

I hope you will have a great time using this device. Please pay us a little visit on our websites.
https://atovproject.wordpress.com/
https://www.facebook.com/AtoVproject/

I want my devices to be as good as possible so really don't hesitate contacting me if you find any bug or if you have any suggestions!

Please send an email at AtoVproject@gmail.com I'll read every email and try to answer them as fast as possible.

I also have a donation page if you feel like supporting me. There is no obligation, for now everything will be for free but pre-release beta version of my devices will be available to my donators.

Special thanks to all donators and beta testers

- Chris
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