NEPHETON

Drum Machine

d16 group

User Manual

Overview

Interface

Nepheton's interface is split into two parts:

- **Internal Sequencer** – Responsible for editing patterns in **Int.Seq.** mode.

Internal sequencer section

- **Synthesis Module** – This part is designed for a controlling the sound synthesis.

Synthesis section

- **Control Module** – Used for Nepheton presets, patterns and settings management.

Work modes

Nepheton works in two modes:

- **Internal** – The drum patterns are played using Nepheton's internal sequencer.
- **External** – Nepheton acts as a sound module playing drum sounds. Patterns are played by sending Midi notes from host sequencer.

➲ *Note: Drum sound mapping is compatible with General Midi Standard. However, mapping can be changed by user.*

Audio outputs

Nepheton is a multi-output VSTi plug-in. It has 12 stereo (or mono – configurable) outs. Instruments can be freely mapped to each of those available outputs according to their individual volumes setting.

⟳ Note: Being able to change the above settings may depend on the host sequencer.

By the default, outputs are set to be stereo. That can be changed in a **Options** menu (described later).

When Nepheton is loaded, the 17 individual drum sounds (+ 1 extra trigger out sound described later) are mapped to first output. To change the output assignment, just click and drag on the LED above the drum sound settings.

Audio outputs configuration

Sounds can be mapped to any available output (one of 12). For example, the Open and Closed Hi Hats could be assigned to a single output 2 together or the Clap could appear on output 1 etc. It is fully configurable.

When Nepheton is playing, it is possible to turn on or turn off individual channels (instruments) using the **Mute** / **Solo** LED switches:

Mute, solo switches

These stop the triggering of the instruments but allow the sounds to play until the end of the envelope. This stops a rapid cut in the sound making the transition sound more natural.

1

Preset management

All the parameter settings (level, tuning, decay etc) for a complete Nepheton drum kit are stored in a Preset. Nepheton can store a total of 128 presets.

Sound parameters

The **Preset browser** tool is provided to simplify the organisation and use of Presets. The **Preset** section on GUI is used for navigation through the preset bank. To read more about preset management go to chapter **Preset Management**.

Play modes

External sequencer mode

Clicking the **Int.Seq.** diode in the **Sequencer Settings** box will switch it off:

Sequencer settings

Nepheton will now act as a sound module. MIDI Notes corresponding to the Instrument (drum sound) note numbers are sent from the host sequencer to play drum patterns. The mapping follows the General Midi standard – it is possible to change mapping.

Note velocity is used to determine how loud notes are played.

- **48** – Corresponds to the non-accented step.
- **96** – Corresponds to accented step.
- **127** – Corresponds to step with total accent set.

In **External mode**, only the controls from **Synthesis module** and **Control module** functions work.

Internal sequencer

Internal Sequencer mode allows Nepheton to act as a fully functioning drum machine within the host sequencer. Pressing **Play** on the host sequencer, or **Start** on Nepheton, will start play back of the default internal patterns.

➲ *Note: If a pattern is started using the Nepheton's **Start** button and the host sequencer has not been started then, playback can only be stopped using the **Stop** button on Nepheton.*
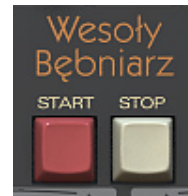
Start, stop buttons

Nepheton can be set to synchronize perfectly to the host tempo (by setting the **Int.Sync.** led to off) or to play to its own tempo (set by turning the **Int.Sync.** led on).

Sequencer settings

With internal synchronization turned on, each of the internal patterns has its own Tempo value, which can be adjusted by tweaking the **Tempo** knob (Only in the **Pattern Write** mode, described later):

Tempo knob

Internal pattern storage

There are two internal **Play modes**:

- **Native mode** – Available when the **Host mode** LED is turned off:

Sequencer settings

- **Host mode** – When this LED is turned on.

Each of these modes has its own pattern storage system.

Native mode

Nepheton is in this mode when it is first loaded.

There are 16 available patterns. Each pattern is comprised of 4 parts. Each part can be up to 16 steps in length (that is, any size from 0 to 16 steps). The parts have names: A1, A2, B1, B2. Each complete pattern corresponds to one of the **Step buttons**:

Step buttons

The first 12 patterns are called **Regular patterns**. The remaining 4 patterns are **Fill In patterns**. When a **Regular pattern** is selected, the LED above it will flash. When a **Fill in pattern** is selected, the LED will stay lit.

Pressing the **Start** button will cause the chosen **Regular pattern** to play.

The **Measures auto fill in** knob:

Measures auto fill in knob

The default setting is **Man.** (Manual). To play the fill-in pattern, the **Tap** button is used. After pressing the **Tap** button, the currently playing **Regular pattern** will play to the end and then chosen **Fill in pattern** will play. When it finishes, the **Regular pattern** plays again continuously.

Fill in button

Setting the **Measures auto fill in** knob to any of the other values will cause the **Regular pattern** and **Fill in pattern** to play in a cycle. For example, setting the value to 16 will cause the **Regular pattern** to repeat 15 times and then play the **Fill in pattern**. The cycle will then repeat. The **Total** length of the cycle corresponds to the selected knob value.

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As mentioned earlier, every **Regular pattern** is comprised of 4 parts. The **Basic variation** switch determines how the parts are played within the pattern.

Basic variation switch

There are 3 possible settings:

- **Position A** – Parts **A1** and **A2** (if exists – that is if the length of **A2** is greater than 0) are played.
- **Position B** – Parts **B1** and **B2** (if exists – that is if the length of **B2** is greater than 0) are played.
- **Position AB** – Parts **A1**, **A2**, **B1** and **B2** are played.

Play mode of the **Fill in patterns** is set by **I/F Variation** switch:

I/F variation switch

Fill in patterns consist of **A1**, **A2**, **B1**, **B2** parts. The **I/F Variation** determine which play.

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Example 1: **Basic Variation** switch = **A**, **I/F Variation** switch = **B**, **Measures auto fill in** knob = **4**. With Length **A2** set to 0, the following sequence will be played:

- Regular – **A1**
- Regular – **A1**
- Regular – **A1**
- Fill in – **B1**

If the length of **A2** was greater than zero, then the pattern would be played back as follows:

- Regular – **A1+A2**
- Regular – **A1+A2**
- Regular – **A1+A2**
- Fill in – **B1**

Example 2: Both **Regular pattern** and **Fill in pattern** have all 4 parts filled. **Basic variation** switch = **AB**, **I/F Variation** switch = **A**, **Measures auto fill in** knob = **4**. Following sequence will be played:

- Regular – **A1**
- Regular – **A2**
- Regular – **B1**
- Regular – **B2**
- Regular – **A1**
- Regular – **A2**
- Fill in – **A1**
- Fill in – **A2**

↻ *Note: The cycle is **A B A Fill A** = a total of **4** parts in cycle. If the **Measures auto fill in** knob is set to **12** in the example above, then the following pattern would play: **A B A B A B A B A Fill A** = a total of **12** in cycle.*

↻ *Note: For the purposes of the cycle and fill in; **A** = A1 + A2, **B** = B1 + B2, **Fill A** = Fill A1 + Fill A2, **Fill B** = Fill B1 + Fill B2.*

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Currently playing pattern is shown by the pattern number in the display box with the pattern name below it:

Pattern number and name

Blinking LED on **Step buttons** mark the pattern position. The Part LED's combined with the **Basic variation** switch indicate the part.

Basic variation switch   *Part indication*

States of these LEDs give us all 4 possible pairs: **A1**, **A2**, **B1** and **B2**.

When Nepheton is stopped in **Native mode**, the **Tap** button allows the selection of **Regular patterns** or **Fill-in patterns** (shown by a blinking LED in corresponding section on the chosen step button). If the blinking LED is in the **Regular pattern** area, then the chosen pattern will start to play when **Start** is pressed. If the blinking LED is in the **Fill-in pattern** area, then when play is started the chosen Fill-in pattern will play followed by the regular pattern.

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Host mode

In **Host mode**, patterns are triggered using a MIDI keyboard. A **Note on** causes the corresponding pattern to play. This mode is recommended for creating drum line arrangement in host application. Releasing the key and sending a **Note off** will eventually stop the pattern. It depends on whether the **Note Off Mode State** is set in configurational panel is checked. To change **Note Off Mode** open configurational window by clicking **Options** button:

Options button

Go to **Sequencer** tab and check or uncheck the **Note Off Mode State** checkbox in **Current Settings** group.

The pattern will play back at the tempo of the host sequencer (if internal sync turned off – **Int.Sync.**) or at the tempo which Nepheton's **Tempo** function is set to (if using internal sync). This happens while a key is pressed and held.

This is a very creative mode which, by recording the notes into the host sequencer, can allow very complex percussion structures to be created using patterns in Nepheton's internal pattern memory.

It should be noted that in **Host mode** the **Start**, **Stop** and **Step buttons** on Nepheton don't function. Patterns are only played back while a key on a connected midi keyboard is pressed (and held).

➲ *Note: In this mode the pattern structure is quite different. They don't consist of parts anymore. They're just* **Simple patterns** *with maximum 16 steps. They're mapped to Midi keyboard as notes: C-1 to B-8. That is, 96 patterns.*

2

In this mode, currently playing pattern is indicated by display unit:

Pattern number and name

in format:
P.[TONE NAME][– or #][OCTAVE NUMBER]

Nepheton has permanently active Midi output, which allows to control external instrument (virtual or hardware) by Nepheton's internal sequencer. It works either in **Native** or **Host mode**. Plug-in sends a midi note codes accordingly to the current drum map configuration to its Midi output. Velocity values of Midi notes sent by Nepheton are calculated on a basis of **Step attributes** (accented or non-accented) and value of **Global accent**.

When you set the Nepheton into **External** mode, it just passes Midi notes through itself unchanged. So basically the same notes you redirect into a plug-in you will get on the Midi output.

Sound editing

Synthesis module is for sound editing in Nepheton:

Synthesis section

There are various parameter settings for the 17 drum sounds:

- Bass Drum
- Snare Drum
- Low Conga
- Mid Conga
- High Conga
- Low Tom

- Mid Tom
- High Tom
- Claves
- Rim Shot
- Maracas
- Hand Clap
- Cow Bell
- Laser Gun
- Cymbal
- Open Hihat
- Closed Hihat

For each instrument there is one common parameter:

- **Level** – Volume level of each instrument.

And various instrument specific parameters:

- Bass Drum:
  - **Tone** – Volume of the initial click.
  - **Decay** – Amplitude release time.
  - **Sweep** – Release time of frequency envelope.
- Snare Drum:
  - **Tone** – Crossfade between audible one and two oscillators.
  - **Decay** – Noise amplitude release time.
  - **Snappy** – Crossfade between noisy and muddy sound.

- Low Conga, Mid Conga, High Conga:
  - **Tunning** – Base frequency.
  - **Decay** – Amplitude release time.
- Low Tom, Mid Tom, High Tom:
  - **Tunning** – Base frequency.
  - **Decay** – Amplitude release time.
  - **Snappy** – Crossfade between dirty and clean sound.
- Claves:
  - **Tunning** – Base frequency.
  - **Decay** – Amplitude release time.
- Rim Shot:
  - **Tunning** – Base frequency.
  - **Decay** – Amplitude release time.
- Maracas:
  - **Tone** – Noise color.
- Hand Clap:
  - **Tone** – Filter's cutoff frequency.
  - **Reverb** – Reverb's decay time.
- Cow Bell:
  - **Tunning** – Base frequency.
  - **Decay** – Amplitude release time.

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- Laser Gun:
  - **Depth** – Frequency envelope modulation.
  - **Decay** – Amplitude release time.
  - **Sweep** – Release time of frequency envelope.
- Cymbal:
  - **Tone** – Attack.
  - **Decay** – Amplitude release time.
- Open Hihat, Closed Hihat:
  - **Tone** – Noise colour.
  - **Decay** – Amplitude release time.
  - **HH Frq** – Base frequency for a square oscillators, which are used to generate the noise sound.

Trigger out

There's possible to make audible a trigger sound, which occurs in analogue machines. By default this signal is off. To turn it on you need to decide which track (instrument) will be triggering this sound. Check out further chapters for the details.

Master volume

To change the **Master volume** just tweak the **Master volume** knob:

Master volume knob

Drumline editing

Pattern editing

To edit the currently selected pattern, press the **Patt.Write** button (it's not necessary in **Host mode**, since **Pattern write** is the only possible mode there).

Pattern write button

To edit another pattern other than the current one playing, use the **Prev** and **Next** buttons. The playing pattern won't change but the edited pattern will be the newly selected one.

To choose which pattern part to edit (**A1**, **A2**, **B1**, **B2**), use the **Edit part** buttons:

Edit part buttons

➲ *Note: Make sure the length of a pattern is greater than 0 or it cannot be edited (see later).*

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Every pattern consists 18 tracks, one for each instrument + accent.

Instrument selector

The parts are edited using the **Step buttons**:

Step buttons

These keys work in toggle mode and for most instruments have 3 states:

- **Accented** – LED on, the key lights with a bright red color.
- **On** – LED on, the key lights with darker red color.
- **Off** – LED is off

The main difference between a non-accented and accented sound is the volume. However, accent also causes subtle changes to the sound character in other ways.

The **Global accent** (**AC**) track have only two possible step values: **On** or **Off**.

To select an instrument (track) to edit, use the **Instr.Sel.** bar below the **Step Buttons**:

Instrument selector

The instrument names on the top of **Synthesis module** can also be used to select an instrument:

Instrument names

We can select a single instrument by clicking on it in the **Instr.Sel** bar. However, to select more than one instrument, press and hold **CTRL** on the keyboard whilst clicking.

Tap mode

Tap mode allows patterns to be "tapped" in real time:

Instrument selector

This is done by selecting an instrument and pressing the **Tap** button whilst in **Patt.Write** mode. The notes are automatically quantized to the nearest step.

Fill in button

Pressing **Tap** button enter non-accented notes. Pressing **Tap** with **CTRL** key enters accented notes.

Editing functions

Standard editing functions:

Editing functions

- **Shift left** / **right** – Shifts steps on the selected tracks left or right. The shifting is cycled. This means if the last step on the right side (during the shifting right) it will appear on the first step on the left side. Similarly it happens while shifting left. Pressed with **CTRL** key, shifts whole pattern.

- **Copy** – Copies selected tracks to buffer. After pressing this button, LEDs in **Instr.Sel.** start to blink to indicate that there is data in the buffer. Pressed with **CTRL** copies whole pattern to a buffer.

- **Paste** – Pastes buffer to the selected tracks. If do not change destination tracks, they'll be copied in the same place (in the same or other pattern). But you can change it, by a selecting some other tracks on the **Instr.Sel.**

- **Clear** – Clears selected tracks. Pressed with **CTRL** key, clears whole pattern.

Clear when combined with the **CTRL** key (on the keyboard) cause operation to be performed for **WHOLE** pattern.

To select the destination pattern, use the **Prev** and **Next** buttons.

➲ *Note: Copying can be also performed for the tracks assigned to the different instruments.*

Pattern number and name

Length of the pattern (part)

The length of the pattern's part can be set to a maximum of 16 steps. It can be changed using **Length** function. Whilst in **Patt.Write** mode, press the **Length** button – this will light up the LED's above:

Editing functions

All LED's above **Step buttons** indicate the number of steps in the pattern:

Step buttons

Pressing a **Step button** will make it the last step in the pattern. To leave this mode, just press the **Length** button again.

Pressing **Clear** button when the **Length** key is active sets the pattern's part length to zero. This is only possible with 2nd parts (**A2** and **B2**). Parts **A1** and **B1** MUST have the Length set to a value greater than 0.

Global accent

The **AC** track is used to accent **ALL** instrumental tracks on a given step.

AC Track on instrument selector

The steps to accent are selected the same as any other track using the **Step buttons**. The value is either **On** or **Off**. If an Instrument has an accent on a step and **AC** is added to that step, the two accents will be combined to give the loudest possible value for that instrument at that step.

The **AC knob** controls how much extra volume is added to a step. Set to zero, no **AC** is added.

Accent knob

Tempo scale

On the **Scale bar** bar, the lit LED marks the current **Tempo scale** (one of four):

Scale bar

Tempo scale can be described as the number of steps per quarter note. Default value is four steps per quarter note. Successively counting from the bottom there are: 8 steps per quarter note, 4 steps per quarter note, 6 steps and 3 steps per quarter note. Tempo scale is switched by the **Scale** LED's on **Scale bar**:

Scale bar LEDs

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Shuffle

Shuffle is also called Syncopation or Swing, It is added by turning the **Shuffle** knob when in **Patt. Write** mode.

Shuffle value is stored per "letter" part (A, B) independently in **Native mode**. For **Host mode** it is stored per **Simple pattern**.

Shuffle knob

Pattern follow

Follow button works only when the **Patt.Write** mode is active.

Pattern number and name

With **Follow** button turned off, to choose a pattern to edit we need to navigate through all the available patterns using the **Prev** and **Next** buttons.

With **Follow** turned on, currently playing pattern becomes the edited one immediately. With **Follow** turned on switching between patterns using keys **Prev** and **Next** is disabled.

Additionally currently played part becomes edited one. The **Edit part** buttons are switched automatically.

Edit part buttons

Loading and saving patterns

It is possible to save or load a single pattern or a complete bank of patterns.

Saving patterns

1. Before saving, the pattern should be named (click on **Pattern name** display):

Pattern number and name

Just click on it and enter the name for the newly created pattern. Pressing enter ends the editing process.

2. To save pattern just click **Next** button with **CTRL** key pressed on keyboard. The menu should appear:

➲ *Note: On **MacOS** use **Apple CMD** key instead of **CTRL** key.*
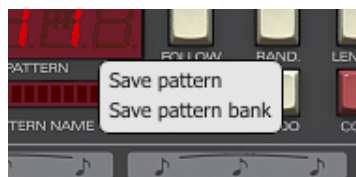
Saving patterns

Choose the **Save pattern** option to show file save dialog. To save all patterns currently stored in Nepheton, choose **Save pattern bank** option.

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Loading patterns

To load pattern click **Prev** button with **CTRL** key pressed on keyboard. The menu should appear:

Loading patterns

Choose the **Load pattern** option to show file dialog. To load whole bank of patterns to Nepheton's memory, choose **Load pattern bank** option.

Following file types are saved and loaded by Nepheton:

- **Native mode**
  - **.npptrbN** – Bank consisting all 16 patterns.
  - **.npptrN** – Single pattern.
- **Host mode**
  - **.npptrbH** – Bank consisting all 96 patterns.
  - **.npptrH** – Single pattern.

↺ *Note: Files saved by Nepheton are in standard **XML** format and can be easily edited within any text editor.*

Randomizing drumlines

Randomize

To randomize a pattern, we need to select **Rand.** mode while in **Patt.Write** mode. In **Rand** mode, the GUI functionality changes slightly:

Editing functions

The **Instr.Sel.** LEDs select which instrument will be included in the randomization. Clicking will turn them on or off. The same principles apply as during instrument selection (using **CTRL** key on keyboard).

Instrument selector

To randomize the pattern, press the **Next** button. **Prev** will function when we have randomized a few patterns and wish to go back to a previous randomization.

Pattern number and name

The LEDs above the **Level** knob for each selected instrument will flash. This indicates that they are now assigned to **Rand.Mode**. They are used to determine the intensity of the randomization for that instrument. That is, how much randomization will occur across the selected steps.

Instrument level knobs

To accept the current randomized pattern, just press **Tap** button.

Fill in button

The **Undo** key will remove the randomization.

Editing functions

Preset Management

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Browsing presets

Presets in the plug-in are hierarchically organized in groups and, contrary to the linear structure, this setting is not compatible with the native methods used within the host application. The user can see the presets assigned to particular groups in the **Preset Browser**. Groups can be also defined by the user.

Preset management section

Controls available in the preset selection section:

- **Preset name** – Displays the name of the selected preset. Allows editing of the preset name before saving the preset. Clicking on the control causes a shift into edit mode. After applying changes through the keyboard, confirm the new name with the Enter button.

- **Prev** / **Next** – Buttons used to navigate through the preset bank. **Next** button moves the browser to the next preset. If the current preset is the last preset in a group, pressing **Next** moves the browser to the first preset in the subsequent group. **Prev** button moves the browser to the previous preset. If the current preset is the first preset in a group, pressing **Prev** moves the browser to the last preset in the preceding group.

- **Prev** + **CTRL** – **Prev** button pressed while holding **CTRL** copies the edited preset to the buffer.

- **Next** + **CTRL** – **Next** button pressed while holding **CTRL** pastes the buffer to the current preset with postfix "_copy" added to its name.

- **Browse** – Opens a **Preset Browser** menu.

➲ *Note: On **MacOS** use **Apple CMD** key instead of **CTRL** key.*

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Changes in the preset bank are not permanent. After removing and reloading the plug-in, the default preset bank will be loaded. However, saving the project within the host application will also save the status of the plug-in including changes in the preset bank. After reloading the project, all changes in the current parameter settings and in the preset bank will be restored.

Preset Browser

As it was mentioned, the preset bank in the plug-in has a hierarchical structure i.e. presets are organized in groups. Presets can be selected by **Next** / **Prev** buttons, which navigate through the structure in a linear way or by using the **Preset Browser**. The **Preset Browser** is a tool which allows to easily manage the preset structure. To open it, click **Browse** in the preset selection section:

Preset management section

The **Preset Browser** will be displayed on the GUI:

Preset browser

The left side shows the list of groups in the preset bank: The right side shows the list of presets in the selected group:
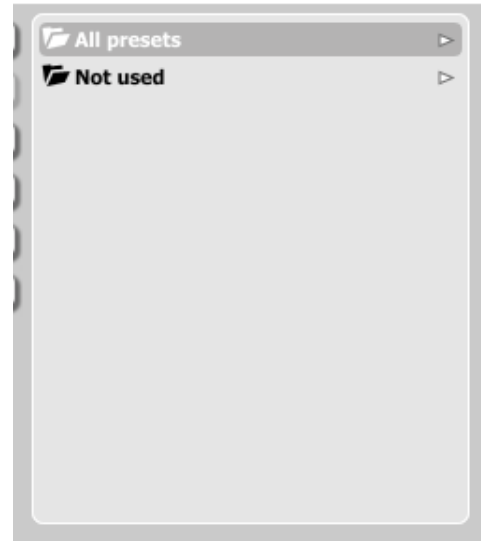
List of groups in the preset bank

List of presets in the selected group

Actions available in the **Preset Browser**:

- Clicking on a slot in the preset list loads the selected preset.

- Clicking on a slot in the group list selects a group of presets.

- Both presets and groups can be renamed. Double clicking on a slot toggles edit mode. After entering the new name, press enter to finish.

- The bank of presets has exactly 128 items. The number of presets cannot be changed. This means that there is no possibility of adding or removing presets. Only relocating them between groups or changing their order is possible.

  By dragging the preset you may:

  – Change its position in the group by dropping it in a different slot in the list of presets in a selected group.

  – Move the preset to a different group by dragging and dropping it in the chosen slot in the group list.

  Holding CTRL or SHIFT and using the mouse button allows to select more presets:

  – Holding CTRL and clicking on presets selects single items.

  – Using SHIFT allows to select a range of presets. The first click marks the beginning of the range and the second click marks the end.

  When more than one presets are selected, it is possible to drag them to a different group.

➲ *Note: Changing the order of presets in a group is possible for a selected single preset. Changing the order by dragging several presets in a group is inactive.*

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On the left side of the **Preset Browser** there are function buttons located:

+ – Adds a new empty group to the preset bank.

– – Removes a group from the preset bank, but only if the selected group is empty. Before removing a group, remaining presets should be relocated to different groups. An empty group can be recognized by the lack of bold font and the lack of a pointer on the right from its name.

_Misc
_Organs
Pads

Empty group in the Preset Browser

– Pastes the edited preset to the buffer; works exactly like the combination of **Prev** and **CTRL**.

– Overwrites the selected preset with the buffer content; works exactly like the combination of **Next** and **CTRL**. The postfix "_copy" is added to the name of the preset pasted from the buffer.

▲ – Works exactly like **Prev** on GUI; allows to move backwards on the hierarchical structure of presets.

▼ – Works exactly like **Next** on GUI; allows to move forward on the hierarchical structure of presets.

Function buttons of the Preset Browser

Loading and Saving presets

At the bottom of the **Preset Browser** there are function buttons which allow to save/load presets on/from the hard drive.

Loading and Saving presets from the hard drive function

Four buttons are available:

- Preset **Load** – loads a single preset from a file (file .npprs – Nepheton preset).
- Preset **Save** – saves the current preset to a file.
- Bank **Load** – loads the entire bank of presets from a file (file .npprb – Nepheton bank).
- Bank **Save** – saves the entire bank of presets to a file.

➲ *Note: Before saving the preset to a file, save it in Nepheton using* **CTRL** *+* **Browse** *when* **On demand** *function is selected in the plug-in configuration.*

➲ *Note: Files saved by Nepheton are compatible with XML format, which enables their edition in any text editor.*

Configuration

Options button

After clicking on **Options** in the upper-left corner of GUI, a configuration panel unfolds. The panel has several tabs:

Configuration panel tabs

- **Outputs** – configures audio outputs.
- **Sequencer** – configures sequencer's work mode.
- **Presets** – indicates personal resources loaded instead of default presets.
- **Patterns** – indicates personal pattern banks loaded with every new instance of the plug-in in the host application.
- **Drum map** – configures the drum map for **External** mode.
- **Midi control** – configures MIDI communications with the plug-in.

Clicking on **Options** while holding **CTRL** opens a window with information about the version and the license owner.

Outputs tab

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Configures audio outputs from the plug-in.

Default output assigns

Setting the default internal audio outputs mapping.

Default output assigns

If you have your favorite audio output configuration:

Audio outputs configuration

You may set it to be the default one, recalled after each time when you load the plug-in into host application.

You may set a default audio output configuration using combo boxes under instruments' abbreviations by choosing one of twelve available audio outputs for every instrument.

Default output assigns –selecting outputs

Or map the output using the GUI accordingly to your preferences and then use **Set from current assignations** option. Then your map becomes the default one.

The content of the **Default outputs assigns** group is saved in the Nepheton configuration file and applies to all new instances of the plug-in. When removing any instance of the plug-in from the host application the configuration file is saved.

Default outputs type

This is responsible for choosing the type of outputs.
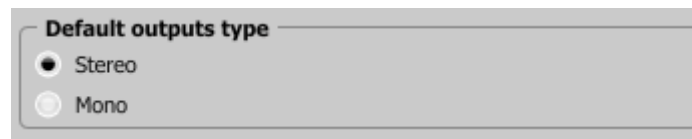
Default output type

We're allowed to choose one of the two available types: **Stereo** or **Mono**.

The content of the group is saved in the Nepheton configuration file and applies to all new instances of the plug-in. When removing any instance of the plug-in from the host application the configuration file is saved.

➲ *Note: The plug-in in the AU version allows only Stereo outputs.*

Trigger output

There's possible to make audible a trigger sound, which occurs in analogue machines. By default this signal is off (**Source** combo box set to **- None -**). To turn it on you need to decide which track (instrument) will be triggering this sound, by selecting it from **Source** combo box:
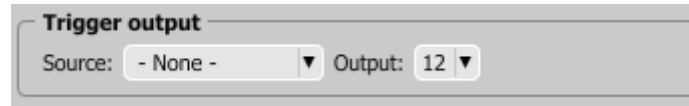
Trigger output

Chosen track (instrument) apart from regular role will also be responsible for controlling trigger out sound.

Trigger out will be mixed into the selected output (one of twelve available). Use the **Output** combo box to select the audio output for Trigger out.

Sequencer tab

Current Settings

Current Settings checkboxes:
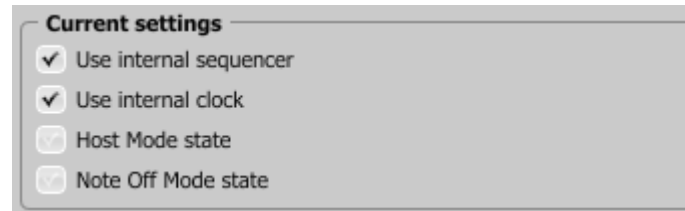
Current settings

reflect the state of controls from the **Seq.Settings** section on GUI.

Sequencer settings

The **Note Off Mode state** checkbox is an exception and it is not available on GUI. It is only available in this tab (**Host mode** – description available in earlier chapters).

Default Settings
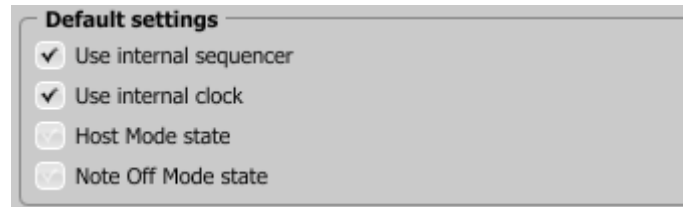
Default settings

Default Settings group contains checkboxes with default flag values for the **Current Settings** group. In every new instance of the plug-in, in the host application, the **Default Settings** flags are overwritten on the **Current Settings** flags. **Default Settings** values are saved in the Nepheton configuration file and applies to all new instances of the plug-in. When removing any instance of the plug-in from the host application the configuration file is saved.

Host play detection
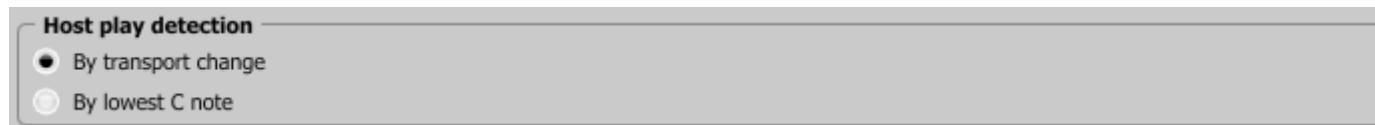
Host play detection flag

This solves sync problems with some hosts. It mainly concerns **Native mode**. The properly written host should send a **Transport Change** code to the plug-in after pressing the **Play** button in the host application.

When the **By Transport Change** option is selected, then don't need to add an extra Midi track to force the plug-in to start to play. It should start to play automatically. In some cases it doesn't work. If this happens, choose the **By The lowest C Note** option. Then, add a Midi track with output set to Nepheton and place the Midi note (lowest C note) in the Midi clip. As soon as the Midi **Note On** is sent to the plug-in, Nepheton will start playing.

Presets tab

Preset Storing

Using **Prev**, **Next** buttons or the **Preset Browser** navigates through the preset bank. Any change in the current preset can be stored automatically or on demand. Depending on the selection one of the two options is active:
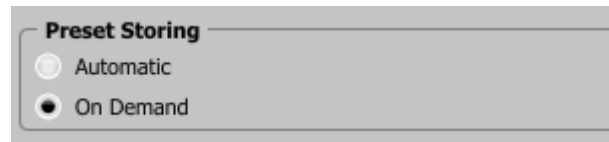
Preset Storing flag

- **Automatic** – Any change of a parameter in the current preset is automatically stored.

- **On Demand** – If any parameter is changed, the change is not saved in the current preset until the **Store** option is used (**CTRL** + **Browse**). Selecting a different preset from the bank causes irreversible loss to changes applied to the parameters, unless the **Store** option is used.

The **Preset Storing** flag is saved in the Nepheton configuration file and applies to all new instances of the plug-in. When removing any instance of the plug-in from the host application the configuration file is saved.

Default Presets

D16 provides a set of default presets with Nepheton. They are applied to every new instance of the plug-in. If a bank of presets is created which should be applied every time instead of factory presets, it is possible to select such an on option **Default Presets** section:
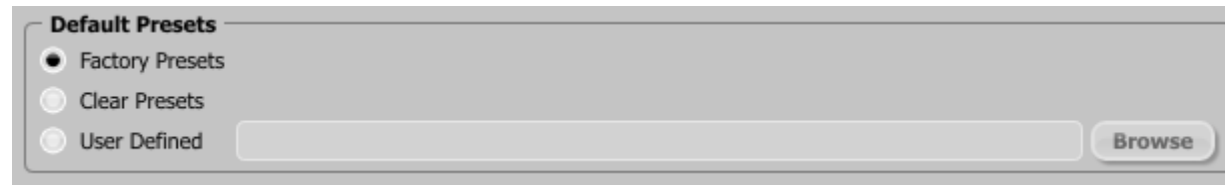
Default Presets selection

Options available in the **Default Presets** section:

- **Factory Presets** – Default value after installing Nepheton. Choosing this option loads the factory presets with every new instance of the plug-in.

- **Clear Preset** – Zeroed parameters with every new instance of the plug-in.

- **User Defined** – Preset bank selected by the user. When choosing User Defined option, the **Browse** button on the right side is activated. Using this button opens a dialog box in order to select a path to the user's preset bank. Confirming the path saves it in the Nepheton configuration file. The selected preset bank will be loaded as default.
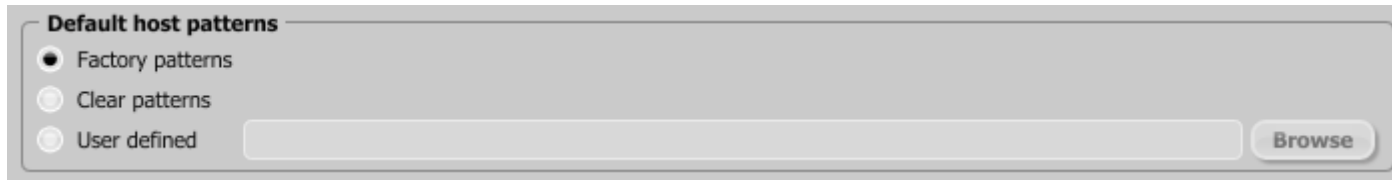
  The text box on the left from the **Browse** button shows the path to the user's preset bank.

Patterns tab
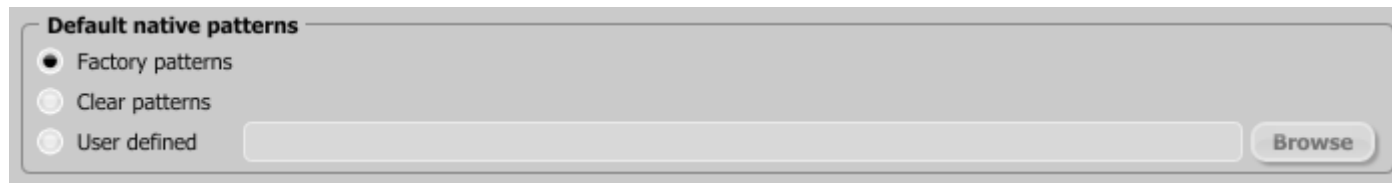
There're included some default patterns and drum kits with Nepheton. These are loaded every time it is started. This can be changed to point to user default patterns and kits.

If a bank of patterns is created which should be applied every time instead of factory pattern bank, it is possible to select such an on option **Default Pattern** section. It is best to keep in mind that depending on the sequencer's work

mode there are two independent patterns banks available separate for **Native mode** and for **Host mode**. Therefore it is possible to indicate default resources independently for **Native mode** and for **Host mode**.

Default patterns

Default native patterns

Options available in the **Default Patterns** section both for **Native** and **Host mode**:

- **Factory Patterns** – Default value after installing Nepheton. Choosing this option loads the factory patterns with every new instance of the plug-in.

- **Clear Patterns** – With every new instance of the plug-in an empty preset bank is loaded.

- **User Defined** – Patterns bank selected by the user. When choosing **User Defined** option, the **Browse** button on the right side is activated. Using this button opens a dialog box in order to select a path to the user's patterns bank. Confirming the path saves it in the Nepheton configuration file. The selected patterns bank will be loaded as default.

  The text box on the left from the **Browse** button shows the path to the user's preset bank.

Drum map tab

In **External** mode, Nepheton by default works with General Midi drum mapping, but it's possible to load your own drum map using an options in this tab.

Current Drum map

In order to load or save the current drum map, use the Load/Save buttons from this group:

Current drum map

- **Load** – Loads a custom drum map from a file (.npdrmap – Nepheton drum map).
- **Save** – Saves a current drum map to a file.

Default Drum map

To set **Default Drum map**, choose options available in this group.

We can choose one of following options:

- **Factory map** – It means the default factory mapping (**General midi** compatible) is applied to the **External** mode available after loading Nepheton into the host application.
- **User defined** – This option is used to set the new default **Drum Map**, which will be loaded every time we load Nepheton in the host application. When choosing User Defined option, the **Browse** button on the right side is activated. Using this button opens a dialog box in order to select a path to the user's drum map. Confirming the path saves it in the Nepheton configuration file. The selected drum map will be loaded as default.

  The text box on the left from the **Browse** button shows the path to the user's preset bank.

⮌ *Note: There's no way to re-edit drum map using a Nepheton's UI. You need to save default drum map to a file first, and re-edit it within any text editor. Files saved by Nepheton are XML compatible.*

Midi control tab

Nepheton can assign its controls (on GUI) to any MIDI CC (Midi Control Change), allowing the control of the plug-in using external hardware or software.
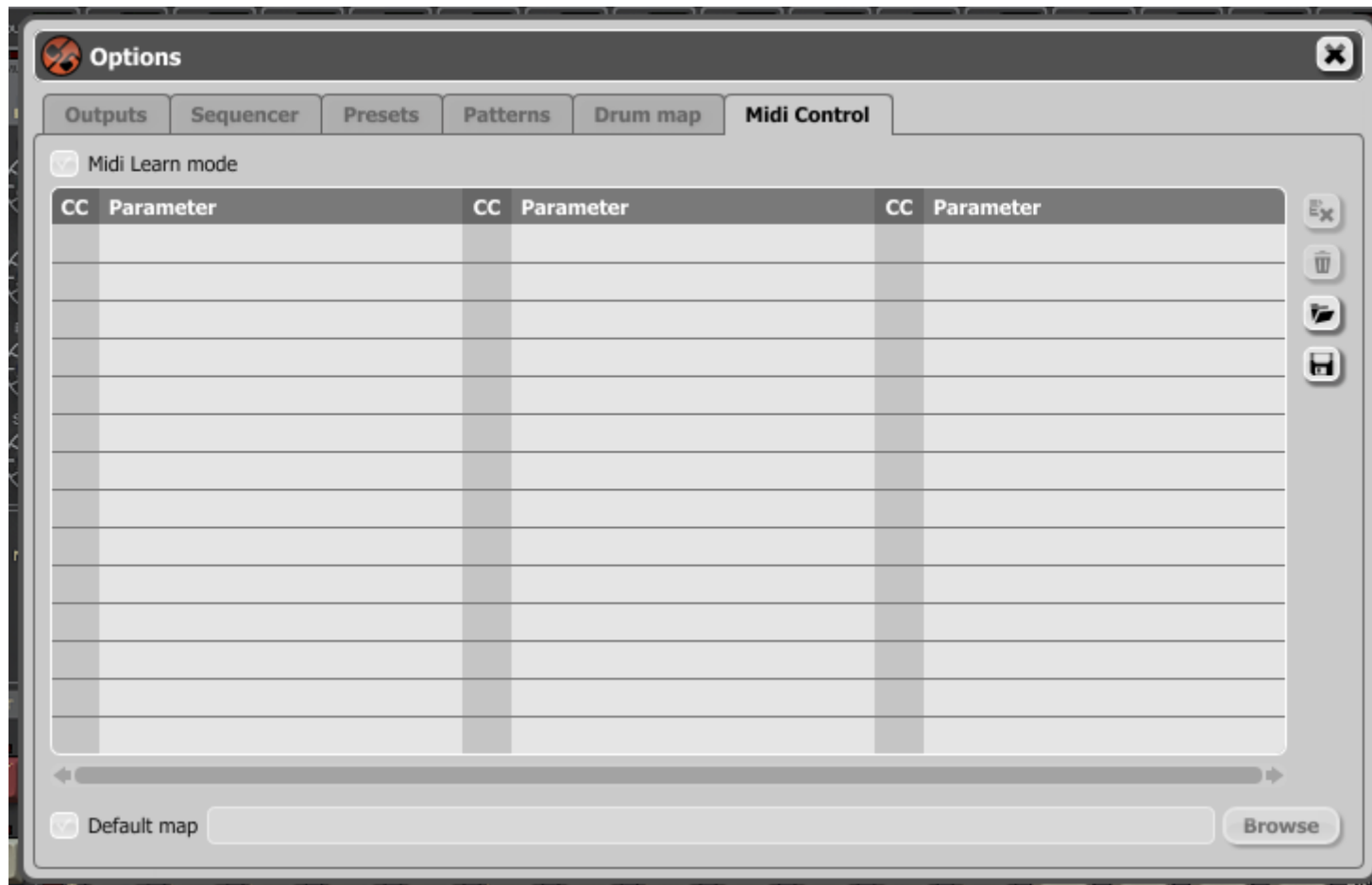
Midi control tab

Controls included in the tab:

- **Midi learn mode** – Checkbox which activates Midi learn mode.
- A list of active MIDI CC links containing pairs comprising of a CC code and the name of the plug-in parameter.
- **Default Map** – Checkbox which activates a default MIDI CC map. When the map is activated it will be loaded with creating a new instance of the plug-in.

Midi learn

Assigning a Nepheton control to the MIDI controller requires:

1. Checking **Midi Learn Mode** checkbox in the **Midi Control** tab:

Midi Learn Mode selection checkbox

or press the **Midi Learn** button in the **Midi** section on GUI:

Midi section on GUI

2. In the status bar in the bottom section of GUI a message should appear *"waiting for a controller or parameter movement..."*:
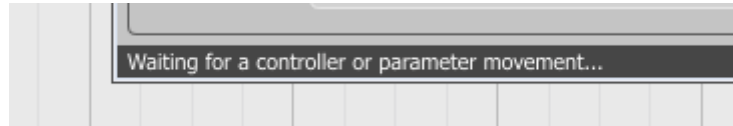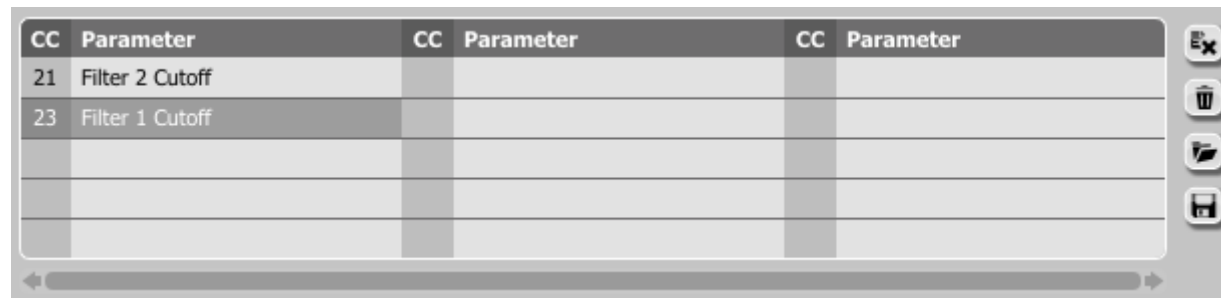
Status bar

In this mode the plug-in waits for any change in the parameter value (movement of any control on GUI) and for the movement of any MIDI CC control from the external MIDI controller, which operates on an active MIDI input channel directed to Nepheton. The order of these actions is irrelevant.

During the above-mentioned actions, the status bar informs about the currently changing values of controls and provides their names.

When a MIDI control <–> GUI control link is established, a line is added to the MIDI CC link list:

MIDI CC link list and function buttons

When a link is established for a controller, it is possible to repeat the operation for the next MIDI CC and parameter pairs. Subsequent links will be created and added to the list.

3. When all the needed links are created, uncheck the **Midi Learn Mod**e checkbox or press the **Midi Learn** button in the **Midi** section on GUI again.

In order to create new links, it is possible to reactivate the **Midi Learn Mode** at any time.

The links are always sorted in an ascending manner in relation to the CC column according to the MIDI CC code.

Unlinking and midi link management

On the right side of the link list there are 4 function buttons located:
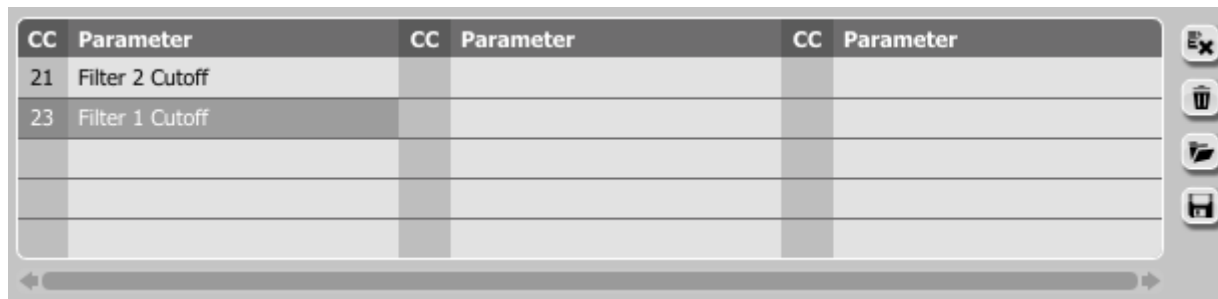
MIDI CC link list and function buttons

- – Removes a selected link; choosing any link from the list and clicking on it highlights the selected link. Using this button removes the selected link.

- – Removes all MIDI CC links.

- – Loads link lists/MIDI maps from file (.npccmap – Nepheton MIDI CC Map).

- – Saves link lists/MIDI maps to file.

↻ *Note: MIDI map files are saved in XML format, which enables their edition in any text editor.*

Default MIDI Map

Selecting a default MIDI Map:

1. Check the **Default Map** checkbox, which activates the **Browse** button on the right.

2. Click **Browse** and select a file with a saved MIDI Map.

After selecting the MIDI map the text box on the left from the **Browse** button shows the path to the active map file. A default MIDI map is loaded each time when the plug-in is loaded.
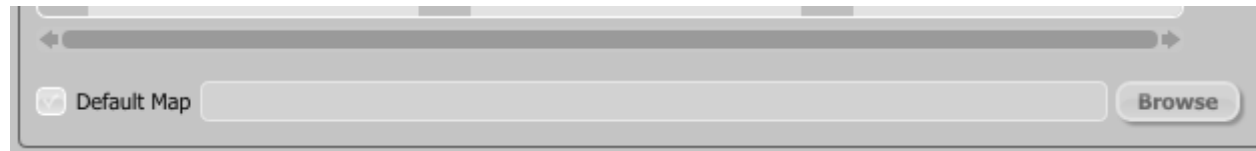
Default MIDI Map selection

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