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1 Introduction to Tres

Tres is a circuit-modelled monophonic synthesizer Rack Extension.

It features an oscillator section with a wide variety of functions for complex tones which are sent through a versatile Emphasis and Filter section for sculpting a wide variety of sounds. The final output is put through a modelled VCA circuit for added warmth and grit.

Most of Tres' controls can all be modulated simultaneously via its extensive TransMod modulation system. A number of internal modulators can be used, as well as external CV sources.

Tres Layout



The Tres front panel is laid out in 3 sections, from top to bottom:

- Audio path: these are the controls for the Oscillator, Filter and Output sections
- Modulation source selection: this area lets you select a modulation source to edit its modulation amounts for parameters
- Internal modulation sources: these controls represent Tres' internal envelopes and LFOs for modulating parameters

Tres also features a number of inputs and outputs on its rear panel, which allow you to inject external audio and modulation sources and also to route the output of the internal modulation sources to other destinations in your Reason session.

Standard controls/indicators

Patches

Tres features programmable preset sounds, called Patches. It includes a number of factory Patches which can be used as they are or to provide you with a good starting point for further tweaking.

Patches use the '.repatch' file extension. Loading and saving Patches is done in the same way as for other instruments and effects in Reason, using the Patch browse and save controls at the top of the Tres front panel.

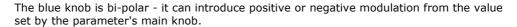
Patches are supplied both as:

- Individual sounds for the synth: these are raw building blocks or starting points for further tweaking and sculpting with effects
- Combinators: these may contain multiple instances, arpeggiators and effects using a variety of Reason's built-in devices

Using TransMod modulation in Tres



- 1. Select one of the 10 available modulation sources as the *currently viewed* source (the LFO 1 source is selected by default).
- 1. Each parameter in Tres that can be modulated has an accompanying blue *TransMod amount knob* which sets the modulation depth from the *currently viewed* TransMod modulation source.



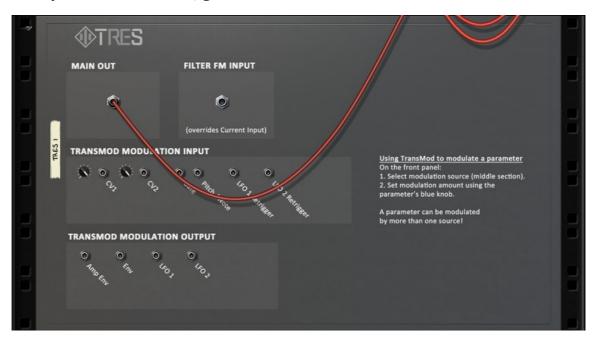


Each TransMod source features its own set of modulation depths to each parameter: a parameter can be modulated by any number of the 10 available sources simultaneously. The TransMod system is discussed in detail in chapter 3.

1.1 Using Tres in Reason

Tres is a Reason Rack Extension synthesizer. In use, it is operated in a very similar way as any other device within Reason: the front panel houses Tres' controls and built-in modulation functions, while the rear panel features a number of audio and CV inputs and outputs.

Rear panel audio and CV/gate connections



Main Out

Tres features a mono audio output in the Main Out section.

Filter FM input

This input overrides the **FM In** setting on the Tres front panel, allowing you to connect an external audio-rate FM source for the filter cutoff.

This input is for audio-rate (audible) signals only. Therefore, outputs from other synths and audio tracks should be connected to this input.

To use CV modulation sources from other Reason devices within Tres, the CV1 and CV2 TransMod Modulation Inputs should be used instead.

TransMod Modulation Output section

These CV outputs provide the output from Tres' internal modulators so that they can be used to modulate parameters elsewhere within Reason. Simply patch the outputs to suitable CV inputs on another Reason device.

The LFO1 and LFO2 outputs transmit unipolar (0 to 1) or bipolar (-1 to 1) modulation depending upon the state of each modulator's **Unipolar** button.

TransMod Modulation Inputs

CV1 and CV2

These inputs are used for the <u>CV1 and CV2</u> TransMod modulation sources. Each of these inputs features an attenuator for fine-tuning the level of incoming CV signals.



LFO1 and LFO2 Retrigger

These inputs accept gate-type CV signals - when a suitable gate signal is received at each input, the relevant <u>LFO</u> is retriggered (it is restarted according to its current Phase setting). An LFO could also be used for this input.

Note that this function occurs in addition to the note reset (Rst) function on the LFO.

Pitch, Gate

These inputs are related to various functionality within various TransMod sources and internal modulator devices in Tres.

The **Pitch** input is used for:

- the Pitch TransMod source, which lets you modulate parameters according to incoming note input
- the keyboard tracking of Tres' oscillators themselves

The **Gate** input receives velocity-sensitive gate CV signals and is used for generating the following:

- the Amp Envelope and Envelope modulators
- the Velocity and Random TransMod sources
- note-on Reset functions (for resetting oscillator and LFO phase)

Important note

Both the Pitch and Gate inputs *must* be connected for this set of rear-panel inputs to function.

Using MIDI alongside the Pitch/Gate inputs

As well as the Pitch and Gate inputs on the rear panel, Tres also receives MIDI note input (effectively containing both Pitch and Gate information) from Reason's MIDI input and sequencer. Tres' synth engine reacts to events from both these sources in the same way and they can be used at the same time - for example, MIDI input notes can be jammed over step-sequencer events to add variation to your monosynth lines.

2 Tres audio path



Tres features a number of exciting timbral possibilities within its Oscillator and Mixer sections, including an audio-rate Min/Max function capable of a variety of complex tones. The oscillator output is sent through an Emphasis and Filter section for a variety of tonal sculpting possibilities.

The Emphasis section allows you to change the tone of Tres' Oscillator section before the Filter section. It is designed to emphasize or de-emphasize higher harmonics in the frequency spectrum in a similar way to a shelving EQ rather than the more extreme sound-sculpting offered by the Filter section. The Emphasis function always tracks the keyboard so that the timbre entering the filter remains constant throughout the keyboard range, with its centre frequency positioned 3 octaves higher than the Master Pitch.

The Filter section is capable of self-oscillation and also contains an audio-rate FM function for its cutoff frequency, which offers a wide variety of timbral possibilities. External audio sources can be used as the filter FM source.

Tres' Output section contains a circuit-modelled VCA for a variety of sounds from smooth and warm to gritty and distorted.

2.1 Oscillator and Mixer sections

Tres Oscillator section overview

At the heart of Tres are 2 circuit-modelled antialiased VCOs, tuned relative to the Master Pitch controls. The oscillators feature Saw, Pulse and Triangle waveforms, hard Sync and Phase Reset functions as well as Pulse Width modulation for the Square waveform. Osc 2 can also be used as a fixed-frequency oscillator or LFO.



The oscillators feature an audio-rate Min/Max function which is introduced via the **1x2** fader in the Mixer section. This function creates complex timbres reminiscent of FM, cross-modulation or ring-modulation.

Tres also features a sub-oscillator and noise source for further timbral options.

Master Pitch section

The Master Pitch controls set the overall pitch of both oscillators in Tres.

The tuning of Osc 1 is always locked to that of the Master Pitch and, although its **Octave** setting can be changed, it does not possess its own tuning controls.

The tuning of Osc 2 can be set independently. Since it is also linked to the Master Pitch, the Osc 2 **Pitch** control can be considered as an offset to that of the Master Pitch. Therefore, Osc 2's **Pitch** and **Fine** controls should be used whenever detuning the 2 oscillators apart from each other.

Pitch

This control sets the Master Pitch within a range of 4 octaves (+/- 24 semitones from the centre position).

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Fine

This control allows you to detune the Master Pitch by up to \pm 1 semitone.

Phase Rst (Phase Reset)

When this button is activated, the phase of Osc 1 and Osc 2 is reset on the start of each note. This can be useful when a consistent sound is desired, especially for basses and percussive sounds.



Osc 1 section

The Pitch of Oscillator 1 is locked to the Master Pitch.

Shape

This control sets the waveform shape of Osc 1: Saw, Square (Pulse) and Triangle shapes are available.

Octave

This control offsets the pitch of the Osc 1 by -1, 0, 1, 2 or 3 octaves.

PW (Pulse Width)

The ${\bf PW}$ control sets the Pulse Width when the ${\bf Shape}$ control specifies the Pulse waveform.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.



Osc 2 section

Shape

This control sets the waveform shape of Osc 2: Saw, Square (Pulse) and Triangle waveforms are available.

Octave

This control offsets the pitch of the oscillator by -1, 0, 1, 2 or 3 octaves. It also allows you to set the oscillator to either of 2 additional modes instead:

Fixed

In Fixed mode, the oscillator does not track the keyboard in this mode so its pitch does not change according to the MIDI notes that are played into it. Its **Pitch** control can, however, still be varied over time via the TransMod modulation system.

Low

In Low mode, the oscillator is switched to LFO mode. It does not track the keyboard but, again, its rate (**Pitch**) can be varied via the TransMod system. This mode is useful for sweeping the rate of filter cutoff modulation from slow LFO rates to low audio frequencies when used in conjunction with the filter's **FM** and **FM Source** controls.

Pitch

As mentioned earlier, Oscillator 2's tuning can be considered as an offset to the Master Pitch. The Osc 2 **Pitch** control sets the tuning of Osc 2 relative to the Master Pitch within a range of 4 octaves (+/- 24 semitones from the centre position).

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.





Fine

This control allows you to detune Osc 2 by up to +/-1 semitone from its **Pitch** setting. Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Sync

Activating the **Sync** control forces Osc 2 to reset its phase with each cycle of Osc 1, effectively imposing the pitch of Osc 1 upon that of Osc 2.

Using oscillator sync eliminates 'beating' between the 2 oscillators if they are detuned relative to each other while still retaining waveform complexities and the resulting harmonic timbral characteristics.

It can also force 12-tone keyboard pitch scaling to very complex and dissonant sounds which can result from using the 1x2 function.

PW

The ${\bf PW}$ control sets the Pulse Width when the ${\bf Shape}$ control specifies the Pulse waveform.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.



Sub Osc and Noise Col sections

Shape

This control sets the waveform shape of the Sub Osc: Sin, Square and Triangle shapes are available.

Octave

This control sets the pitch of the Sub Osc 1, 2 or 3 octaves below the Master Pitch. The Sub Osc can also be set to the same pitch as the Master Pitch (0 octaves below), which can be useful in reinforcing Osc1 with another waveform at the same pitch.

Noise Colour

This control adjusts a dedicated bandpass filter which is used to tune the character of the Noise source before it is mixed with other parts of the Oscillator section and sent to the Emphasis and Filter sections.



Mixer section

The Mixer section allows you to set the levels of the various parts of the oscillator section.

Each of its 5 parameters feature a corresponding TransMod control allowing you to modulate it from the TransMod system.

1

This control sets the level of Osc 1.

2

This control sets the level of Osc 2.

1x2

This control sets the level of the audio-rate Min/Max function between Osc 1 and Osc 2.

The Min/Max function is effectively a form of audio-rate modulation realised as an analogue-style logic function. It constantly compares the waveforms generated by Osc 1 and Osc 2 and outputs the highest value at any one time. This can lead to a wide variety of timbrally complex output, especially when the Pitch and Pulse Width of the oscillators is modulated over time.

Enabling Osc 2's **Sync** function can force more wild and dissonant 1x2 timbres to musically useful tuning.

Sub

This control sets the level of the Sub Osc.

Noise

This control sets the level of the Noise source.

2.2 Tone, Filter and Output sections

Tone section

The Tone section allows you to change the spectral emphasis of Tres' Oscillator section before the Filter section. It is designed to emphasize or de-emphasize higher harmonics in the frequency spectrum in a similar way to a shelving EQ rather than the more extreme sound-sculpting offered by the Filter section. The Emphasis function always tracks the keyboard and the shelving function is positioned 3 octaves higher than the Master Pitch. This means that the timbre entering the filter remains constant throughout the keyboard range.

The **Emphasis** control, which sets the amount of emphasis or de-emphasis, can also be modulated with the TransMod system so that the timbre becomes brighter or darker over time - an LFO or external CV source can achieve interesting results. Another idea is to modulate the parameter with the Velocity source, to mimic the effect per note of increased high-frequency energy or 'damping' with playing intensity.

Emph (Emphasis)

This control adjusts the gain of the Emphasis EQ between -24dB and +24dB. At the centre setting (0dB) the **Emphasis** control does not alter the signal.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Sat

Activating the **Sat** button enables a saturation circuit in the Emphasis section, leading to subtle grit and warmth in its processing.



Filter section

The Filter section offers 3 switchable circuit-modelled filter algorithms for sculpting the complex oscillator output into a wide variety of sounds. Please note that to set up key-tracking on the filter cutoff, the **Freq** control should be modulated by the Pitch TransMod source.

Filter Power

Activating the **Filter Power** button enables the Filter section in Tres' signal path. With the button deactivated, the Filter does not affect the signal.

Type

This control selects from the 3 available filter models.

Japan

This filter is a classic Japanese monosynth filter, circa 1975-85, based on cascaded OTA components.

SVF

This filter is a typical state-variable filter (SVF) design found in many synths with a multi-mode filter.

Fatty

The Fatty filter is an OTA-based Sallen-Key filter design famously used in a classic Japanese semi-modular synth.





Mode

This control sets the filter's response: L.P. (Low pass), H.P. (High pass), B.P. (Band pass) and Notch responses are available.

Drive

This control adjusts the amount of drive within the filter circuit. Higher settings lead to a more saturated, gritty filter sound with less obvious resonance.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Freq (Frequency)

The **Freq** control sets the frequency cutoff of the filter.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

FM & FM In

The **FM** control sets the amount of frequency cutoff modulation from the source specified by the **FM In** control. If an audio source from elsewhere in your Reason project is connected to Tres' rearpanel Filter FM input, it overrides the **FM In** setting on the front panel.

Although the **Freq** control can also be modulated at control rates via its TransMod control, the filter FM function is capable of audiorate FM from the oscillators and from the external FM input.

Using audio-rate FM from Tres' oscs or from external sources opens up a huge world of additional timbral variety.

The **FM** control's corresponding TransMod control allows you to modulate this parameter from the TransMod system.



FM In Off

B.P.

Notch

OUTPUT

FILTER

Type

Japan

Res (Resonance)

The **Res** control sets the resonance of the filter - its emphasis around the cutoff frequency. At the highest settings, this parameter causes the filter to self-oscillate. The sine-like waveform of the self-oscillating filter is especially useful when using FM from the oscs or an external source.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Output section

Tres' output section features a modelled VCA circuit. Its output is hardwired to the Amp Envelope, meaning that MIDI or Pitch/Gate input to trigger the Amp Envelope must occur in order to hear the synth's output.

Drive

This control increases the gain of the signal entering the VCA circuit. Higher values lead to a more saturated, gritty sound.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Level

This control adjusts the final output level of the VCA circuit which should be reduced to compensate for additional gain added by Tres' drive stages in the Filter and Output sections. Alternatively, increase it to boost the signal level when using low **Drive** settings.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.



2.3 Other controls

Bend and Mod wheels

These wheels are assigned to your keyboard's Pitch Bend and Modulation wheels by Reason's MIDI system. If you want to override the default assignments, you can do so by right-clicking on each control and using Reason's functions for achieving this.



Legato

With the **Legato** switch activated, a new note which is played before releasing the previous note does not retrigger any gate-sensitive function in Tres (such as its envelopes or Osc **Phase Reset** function) although the new note's pitch is used to track the oscillators and any other pitch-tracking functions.

Glide

The **Glide** control sets the time for the pitch to 'glide' between successive notes when the **Glide mode** switch is set to the 'Auto' or 'On' positions. This function is also commonly known as 'portamento'.

Glide mode

This 3-position switch sets the behaviour of the **Glide** function.

When set to 'Auto', portamento occurs in legato situations - when a new note is played before releasing the previous note. Note that the envelopes are still retriggered unless the Legato switch is activated.

In the 'On' position, portamento always occurs between notes regardless of when they are played.

In the 'Off' position, portamento does not occur in any situations.

3 Using TransMod modulation in Tres

Guide to using the TransMod system

1. Select a TransMod modulation source

In the middle of the Tres front panel are a number of buttons which represent the various TransMod modulation sources that are available.

One of the sources must be the *currently selected source* - only one source 'view' is visible at one time, but modulation can exist from any number of the available sources simultaneously. The yellow LED on a source's selector button is lit when it is currently selected.

There are 3 ways of selecting a TransMod modulation source:

1.



Click the selector button for any modulation source to select it.

3.



Click the display to select the desired source from a drop-down menu.

2.



Click the up/down buttons to cycle through all the modulation sources sequentially.



2. Set the modulation depth for a parameter using its associated TransMod amount knob

Each parameter that can be modulated features an associated knob with a blue border around it, used for specifying the amount of TransMod modulation from the currently selected modulation source.

TransMod amount knobs are bi-polar:

- When centred, their value is 0
- Turning them to the right causes positive modulation from the original value of the parameter
- Turning them to the left causes negative modulation



Note that the LED above the Osc 2 **Pitch** TransMod amount knob has turned *yellow* - this indicates that the knob features a modulation depth for the *current source*.

Also note that the LED to the top-right of the LFO1 source's selector button has turned red, to indicate that modulation exists to one or more parameters from that source.

TransMod depths

The defined modulation depth represents the maximum amount of modulation possible from the initial value of the parameter (defined by its main knob) with the current TransMod source. The changing intensity of the TransMod source, as well as the combined effect of any other TransMod sources which have been routed to the parameter, dictate the actual modulation that occurs at any one time.

Using multiple modulation sources

1.



Select another modulation source, such as the Amp Envelope source.

Note that the Osc 2 **Pitch** parameter's TransMod amount knob has snapped back to zero, due to the fact that no modulation yet exists from the Envelope source to this parameter.

Also note that the LED above the knob has turned red. This indicates that the parameter features modulation depths from a modulation source other than the current source.

Envelope source's selector bu to indicate that modulation exparameters from that source.

2.



Create a modulation depth for a parameter.

Note that the LED above the **PW** parameter's TransMod amount knob has turned *yellow*, which indicates that it features a modulation depth from the *current source*.

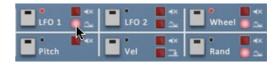
Also note that the LED to the top-right of the Amp Envelope source's selector button has turned *red*, to indicate that modulation exists to one or more parameters from that source.

Polarity: Unipolar / Bipolar operation

The LFO1, LFO2, Wheel and Random sources can all be set to operate with unipolar or bipolar behaviour:

Bipolar Modulation from the source acts in 2 directions, between -1 and 1
 Unipolar: Modulation from the source acts in 1 direction, between 0 and 1

Activate the **Unipolar** button for a source to set it to unipolar operation. Deactivate the button to set it to bipolar operation.



Source Mute buttons

Each source also features a **Mute** button. While this button is activated, the modulation from the source is disabled and the source therefore has no effect.



This function is useful for quickly establishing which source may be causing a certain audible effect.

Controls that can be modulated

All of the following Tres parameters can be modulated:

Audio path controls

- Master Pitch
- Osc 1 PW (Pulse Width)
- Osc 2 PW (Pulse Width)
- Osc 2 Pitch

- Osc 2 Fine Pitch
- Osc 1 Mix Level
- Osc 2 Mix Level
- 1x2 Mix Level (Min/Max function for Oscs 1 and 2)
- Sub Osc Mix Level
- Noise Mix Level
- Emphasis
- Filter Drive
- Filter Freq (Cutoff)
- Filter FM
- Filter Resonance
- Output Drive
- · Output Level

Internal modulator controls

- Amp Envelope Attack
- Amp Envelope Decay
- Amp Envelope Gain
- Envelope Attack
- Envelope Decay
- Envelope Gain
- LFO1 Rate
- LFO1 Gain
- LFO2 Rate
- LFO2 Gain

TransMod resolution

TransMod modulation occurs at control rates, in 64-sample blocks. Tres' dedicated filter **FM** function operates independently of the TransMod system and is optimized for audio-rate modulation of the filter cutoff.

Setting Osc 2 to 'Low' mode (using its **Octave** control) and specifying it as the **FM In** source is useful for smooth sweeps from low frequency cutoff modulation to audio rate timbral effects.

3.1 TransMod modulation sources



Amp Envelope

The Amp Env source provides the output from the Amp Envelope module.

Envelope

The Envelope source provides the output from the Envelope.

LFO1 and LFO2

These sources provide the output from LFO1 and LFO2.

Both these sources can be set to bipolar operation instead of the default unipolar behaviour by deactivating the source's **Unipolar** button.

Wheel

This source provides the source from Tres' modulation wheel. Reason assigns this to your keyboard mod-wheel by default, but this assignment can be changed if you wish.

This source can be set to bipolar operation by deactivating the source's **Unipolar** button.

CV 1 and CV 2

These sources provide the CV signals that are inserted into the CV 1 and CV 2 inputs located on the rear panel.



Pitch

The Pitch source is derived from notes received at the **Pitch** CV input on the rear panel from other devices' CV outputs and from Reason's MIDI input and sequencer.



The Pitch source is very useful for setting up filter key-tracking behaviour so that the filter is applied relative to keyboard pitch.

Vel (Velocity)

The Velocity source provides the velocity value of each gate signal received at the **Gate** input on the rear panel and each note received from Reason's MIDI input or sequencer.

The Velocity source features an additional button in the modulation source selector area. If the **Note-off Reset** button is enabled, the value of the Velocity source returns to zero after the input gate signal has returned to zero (or if the sequencer/MIDI input note is released). If the button is deactivated, the source stays constant at the last value until a new value is generated.



The Note-off Reset button is deactivated by default.

Rand (Random)

The Random source outputs a random value each time that the **Gate** input on the rear panel is fed with a suitable gate signal and when notes are received from Reason's MIDI input or sequencer.

This source can be set to bipolar operation by deactivating the source's **Unipolar** button.

3.2 Envelopes

Amp Envelope and Envelope

Tres features 2 envelopes - the Amp Envelope and the Envelope.

The **Amp Envelope** is hard-wired to Tres' Output section VCA, although it can also be used to additionally modulate any TransMod-capable parameter. It can also be used as the **FM in** source for modulating the Filter section's **Freq** control.



The **Envelope** is a freely assignable TransMod source. A typical use for this envelope is to modulate the Filter section's frequency cutoff (**Freq** control) - this is achieved via the TransMod system and can also be achieved with the **FM** parameter when the **FM in** source is set to 'Env'.

Each envelope features a visualizer bar which represents its current value in real time.

Atk (Attack)

The **Attack** control sets the time taken for the envelope to rise from 0 to its highest point.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Dcy (Decay)

This control sets the time taken for the envelope to fall to the **Sustain** level.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Sus (Sustain)

This parameter represents the level to which the envelope returns after the **Decay** stage.

Rel (Release)

This parameter sets the time after which the note is released for the envelope to fall from the **Sustain** value to 0.

Gain

The **Gain** control offers a final attenuation control for the output of the module before it enters the TransMod modulation system. At 100%, no attenuation is applied to the output modulation signal.

This control is intended to be modulated by other TransMod sources, in a similar way to using a VCA to scale one modulation source with another in an analogue modular system.

Exponential mode

By default, each of Tres' envelopes feature linear envelope curves.

Activating the **Exponential Mode** button switches each envelope to exponential curves, characterised by a sharper response which also results in envelope times that sound 'faster' at the same **Atk**, **Dcy** and **Rel** settings.



Velocity mode

Activating this button results in scaling the envelope's output with input note velocity. It achieves the same result as modulating the envelope's \mathbf{Gain} parameter with the Velocity TransMod source (with a TransMod control setting of +100%).



3.3 LFOs

LFO1 and LFO2

Both of Tres' LFOs feature an identical set of controls.

Each LFO features a green visualizer bar at its upper-right which represents its current value in real time.

Rst (Reset)

With the **Reset** button enabled, the phase of the LFO is reset at the start of every note received. With the button deactivated, the LFO is free-running.



LFO 1

Rst

Mph

Sync button

With the \mathbf{Sync} button enabled, the \mathbf{Rate} control is set in BPM values derived from Reason's master tempo.

With the **Sync** button disabled, the **Rate** control is set in Hz.

Rate

The **Rate** control dictates the speed of the LFO's oscillation.

Its corresponding TransMod control allows you to modulate this parameter from the TransMod system.

Mph (Morph)

The **Morph** control shifts the centre point of the waveform without altering the wavelength. It is similar to a pulse width control in that it varies the duty cycle of the waveform.

Phs (Phase)

The Phase control allows you to adjust the start phase of the LFO within 360 degrees.

Shape

This control selects between the available LFO shapes. Saw, Square, Sine, Triangle and Asymmetric Sine shapes are available.

Gain

The **Gain** control offers a final attenuation control for the output of the module before it enters the TransMod modulation system. At 100%, no attenuation is applied to the output modulation signal.

This control is intended to be modulated by other TransMod sources, in a similar way to using a VCA to scale one modulation source with another in an analogue modular system.



4 Credits

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