PREDATOR

User Guide

Powered by RPCX

Welcome

Thank you for purchasing the Rob Papen Predator.

Predator is a killer synthesizer that combines inspiring presets and first-class features to make this your 'go-to' synth for contemporary music production.

The user interface has been designed so that almost all controls are visible on screen, making it fun and incredibly easy-to-use. And if you're unsure about a particular synth function, simply right click your mouse to access the help screen.

Predator is packed with powerful features such as Preset morphing, Intelligent Preset Variation, MIDI and Synth Controllable FX, Unison Detune, Chord Memory and an extremely versatile Arpeggiator.

Included preset banks: HipHop (NY, Club, DirtySouth and GFunk) banks.
Jump, hardcore, breakbeat, dubstep, various trance styles, DnB banks and much more…

Last but not least…Predator also includes PredatorFX, allowing you to use the incredible filters, modulations, effects and vocoder as an FX plug-in within your music host.

Rob Papen and the RPCX team, December 2011

Installation

Installation on PC (VST)

1. If you have purchased a box version of the RP plug-in, you can use the installer on the CD-ROM/DVD. However we recommend you download the latest version of the plug-in, by following the steps below.

2. Login onto the www.robpapen.com homepage or create an account if you do not have one yet

3. Then register your RP plug-in, using the serial from your registration email.
NOTE: registering your plug-in allows you to obtain support, updates and 2nd serials for additional computers.

4. Next click on the download link that pops up after registration and download the correct version for your computer. The Multi-core versions for PC are for multi-core processor computers and the 64bits versions are for 64bits (music software) hosts and computers.

5. Run the plug-in's installer and enter the RP serial when prompted.

6. Open, inside your (music program) host, the RP plug-in. If you have mis-entered your serial you will be prompted to enter it again. After it has been entered correctly the plugin will be authorized and ready for use.

If you have any questions regarding the installation of your RP software please look in the FAQ section or contact our support team at www.robpapen.com/yourdetails
For details on how to handle plug-ins in general, please look at your music software (host) documentation.

Installation on PC (RTAS)

1. If you have purchase a box version of the RP plug-in, you can use the installer on the CD-ROM/DVD. However we recommend you download the latest version of the plug-in, by following the steps below.

2. Login onto the www.robpapen.com homepage or create an account if you do not have one yet

3. Then register your RP plug-in, using the serial from your registration email.
NOTE: registering your plug-in allows you to obtain support, updates and 2nd serials for additional computers.

4. Next click on the download link that pops up after registration and download the correct version for your computer.

5. Run the plug-in's installer and enter the RP serial when prompted.

6. Open, within your DAW (music program host), the RP plug-in. If you have made a mistake with your serial number, you will be prompted to enter it again. After it has been entered correctly the plugin will be authorized and ready for use.

If you have any questions regarding the installation of your RP software please look in the FAQ section or contact our support team at www.robpapen.com/yourdetails
For details on how to handle plugins in general, please look at your music software (host) documentation.

Installation on Mac (VST, AU and RTAS)

1. If you have purchase a box version of the RP plug-in, you can use the installer on the CD-ROM/DVD. However we recommend you download the latest version of the plug-in, by following the steps below.

2. Login onto the www.robpapen.com homepage or create an account if you do not have one yet

3. Then register your RP plug-in, using the serial from your registration email.
NOTE: registering your plug-in allows you to obtain support, updates and 2nd serials for additional computers.

4. Next click on the download link that pops up after registration and download the correct version for your computer.

5. Run the plug-in's installer and enter the RP serial when prompted.

6. Open, inside your (music program) host, the RP plug-in. If you have mis-entered your serial you will be prompted to enter it again. After it has been entered correctly the plugin will be authorized and ready for use.

If you have any questions regarding the installation of your RP software please look in the FAQ section or contact our support team at www.robpapen.com/yourdetails
For details on how to handle plugins in general, please look at your music software (host) documentation.

Controls

Predator uses controller knobs and buttons to adjust its parameters. If you move your mouse over a control the controller name and its value is shown in Predator's read-out screen, which is located at the bottom right hand side.

Knobs

Left clicking on control knobs and moving the mouse up and down sets the value of a knob. You can see the value in the read-out screen. Pressing shift and moving up / down allows you to fine-tune the control and pressing ctrl + mouse button sets the control to its default value.

Buttons

Buttons come in three kinds:

On / Off buttons

On / Off buttons: when you left click these they toggle between being on and off.

Radio Buttons

These allow you to set one option out of several. As an example look at the FX selector buttons.

Menu buttons

When you left click on these a pop-up menu appears, this allows you to select the value for this control.

Right clicking

Right clicking (or control-click on Mac) on an control will bring up the midi / help menu. Here is shown the control name, the current value and which midi control this control is latched to. Also you can do the following:

Help	Bring up a help screen for that control.
Set to default	Set the control to its default value.
Set to Minimum	Set the control to its minimum value.
Set to Maximum	Set the control to its maximum value.
Set to Midi	Set the control to its medium value.
Set to Random	Set the control to a random value.
Increase	Increases the control value by 1%
Decrease	Decreases the control value by 1%
Set Value	Brings up an entry box so you can directly set the value of the control.
Latch to midi	Latches that control to the next midi control received. For instance to latch Osc 1 volume to midi expression, right click on Osc 1 volume knob, click on Latch to Midi and then move the midi expression control, this should move the Osc 1 volume knob as well. These addressed midi controller settings are overall and will work for all presets and active Predators in your host.
Unlatch midi	Unlatches that Predator control from any midi controls.
Set Midi CC	Allows you to set directly which midi cc will be latched to the control.

Clear midi	Clears all of the midi latching.

Note: in the preset section you can save or load your whole midi (latch) controller setup to Hard Disk. This file button is called ECS.

Computer Keyboard Controls

You can alter the current preset and banks using the computers keyboard. This can be disabled in Predator's back panel. To access the back panel, click on the Predator logo. This setting is global.

Up Arrow key	Previous preset.
Down Arrow key	Next preset.
Right Arrow key	Increase preset number by 16
Left Arrow key	Decrease preset number by 16
Page Down key	Next Predator bank
Page Up key	Previous Predator bank
Mouse Scroll Wheels	Scrolling the mouse wheel up and down scrolls through the presets

Oscillator section

Predator's sound begins with the oscillator section. Predator can use up to 3 oscillators to generate its basic sound. Of course you don't need to use them all...it all depends on the type of sound you want to produce.
We have added FM & ring modulation options to Oscillator 2 and 3, to further shape the sound. This adds an extra dimension to Predator's soundscape.

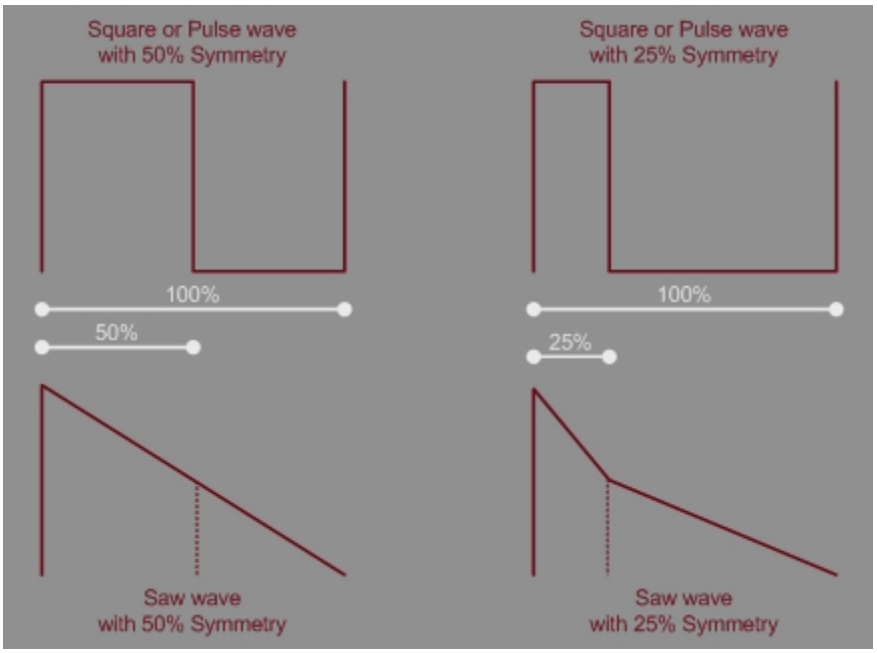
Oscillator on/off

Next to the Oscillator label you can find a button to switch the oscillator on or off.

Waveform

Here you can select the basic shape or harmonic content of the oscillator; this is known as its waveform. Predator has a total of 128 waveforms, ranging from classic analog style waveforms including saw & square to additive and spectral waveforms.

Symmetry (Sym.)



This controls the symmetry of the selected waveform. The effect it has differs from waveform to waveform, but basically it moves the midpoint of the waveform. It is most commonly used with the Square waveform. Here the symmetry control alters the "pulse width" of the waveform, from very narrow pulse waveforms to normal square waves.

Free on/off

When this is turned on, it returns an oscillator to the initial position when you press a new key. When it's off, the oscillator continues from its last position, it is "free-running". This is useful in spread sounds because it removes the initial 'attack' part of the sound.

Sync on/off (Osc.2 and Osc.3)

This setting is only available for Oscillator 2 and Oscillator 3. If you switch it on, the oscillator synchronizes to Oscillator 1. This means that when oscillator 1 finishes the wave cycle, it resets the synced oscillator to the initial position. This means that the oscillator does not have a life for its own anymore and is bound to Oscillator 1. You can hear it very well if you detune, for instance, Oscillator2 and then turn Sync on.
The detuning disappears, and it now has the same pitch as Oscillator 1. However, Oscillator 2 will sound different because Oscillator 1 resets Oscillator 2 whenever it reaches the end of its wave cycle. Typically this will add to the harmonic content (additional overtones) to the basic waveform.
Listen to preset "Predator SyncLead" of the first bank for an example.

Semi

This controls the root pitch setting of the oscillator, with semitones you can alter the tuning from -48 semitones down (-4 octaves) to 48 semitones up (+4 octaves) from the base note.

Fine

Next to the semi knob fine sets the fine-tuning of the oscillator with a range of -100cent up to +100cent.

Track

The track button is located at the very top of the semi button. With track set to on the oscillator follows the keyboard in pitch. When it is off the pitch of the oscillator stays the same independent of what key is played. In the case of FM or Ring modulation, or for FX sounds it can be handy if you can turn this setting off.

Octave up/down

Next to the track control you can find an up and down arrow. Pressing up increases the oscillator tuning by an octave, pressing down decreases the oscillator tuning down by an octave.

Sub

This knob controls the volume of the oscillator's sub-oscillator. The sub-oscillator is a square wave, which is one octave lower than the normal oscillator pitch. The sub-oscillator pitch is always connected to the oscillator pitch, so if you detune the oscillator, the sub-oscillator detunes along with it.

Spread

This is a special Predator function. If you open this control knob, a multiple oscillator sound is generated using one oscillator. The spread knob controls the level of detuning for these multiplied oscillators. If you keep spread to 0 level, a normal oscillator is generated.

PWM

PWM stands for Pulse Width Modulation. This controls the maximum PWM modulation amount of the LFO (see speed parameter). PWM alters the symmetry setting (the middle point) of the oscillator over time. You can use PWM on any waveform, but it is most commonly used with the square wave where it alters the pulse width of the waveform.

Speed

The amount of PWM (Pulse Width Modulation) is altered over time by a sine-wave LFO. With speed you control the speed of this LFO. Of course you need to open the PWM amount to hear the result of any speed changes.

Volume

With volume you control the volume of the oscillator before it goes into the 'Filter section'. NB if you set the filter "pre-filter distortion" to edgy, the volume of the oscillator influences the distortion of the filter, and so you can add distortion with lower oscillator volume settings.

Output

This controls whether an oscillator is output to the 'filter section'. With FM and Ring modulation you do not want the modulating oscillator output to be fed into the filter.
So with Osc.1 and Osc.2 you have the option to shut off the output to the filter, when you are using them as a modulation oscillator.

Oscillator Cross Modulation

This controls the cross modulation options for Osc 2 and Osc 3. When you use either in FM or ring modulation, you'll need to keep the modulation oscillator on but not heard, so you can turn off the output of the oscillator to the filter using the output button.
With FM modulation the oscillator modulates the pitch of the target oscillator, so you get overtones to the original sound. With Ring modulation, both oscillators are multiplied together and you get sound that uses a combination of both sources.

Modulation Type

The following cross modulation types are available. All of these generate additional overtones in a slightly different manner. Please try and experiment with modulation type and amount to accommodate yourself with the subtle and not so subtle characteristics of each modulation type.

Ring 1 (Classic ring modulation)

PM 1 (Phase Modulation)

FM 1 (Frequency Modulation)

Sign 1

Max 1

Min 1

S&H 1

Mix 1

Modulation Amount

This controls the amount of cross modulation applied to Osc2 and Osc 3.

External Controller Setup

ECS

This allows you to load / save an external midi controller setup. Once set it is shared by all of the presets. You can latch one of Predator's controls to a midi controller by using the right button (or control-click on Mac) menu and selecting latch midi. You can also unlatch midi controls the same way or clear all of the midi controls. For example try latching the filter cut-off control or one of the envelope knobs.

load ecs	this opens the folder that holds ECS setups. Installer of Predator installed a folder called ECS and it loads .ECS files
save ecs	this gives the user the option to save the midi setup you made and use them in other songs, it is saved as an .ECS file
reset all midi	this clears all the midi settings for the Predator synth. Handy if you want to start from scratch

Pitch Modulation section

This section shows how you can alter the overall pitch of the sound, either using an LFO to change the pitch over time (vibrato) or how much the pitch bend controller alters the pitch.

Pitch Modulation LFO

Amount

The amount of LFO modulation applied. At the full amount, the pitch goes up / down by one semitone (sine, triangle and S&H waves) & up only by one semitone for the square and saw waves.

Amount control

Here you can select the controller (for instance Modulation Wheel) that controls the amount of Pitch LFO modulation. Listen to "Predator SyncLead" in the first bank. The control amount can be set to positive as well as negative.

Speed

This control determines how fast or slow the LFO is running.

Sync

If you turn sync on, the speed of the LFO will be tempo based. To find the correct setting you need to adjust the Speed parameter.

Waveform

Sine, Triangle, Saw Up, Saw Down, Square and S&H Sinus and Triangle are most often used for pitch because they produce a modulation that goes up and down smoothly. The other waveforms are more suitable for FX sounds or special sounds.

Pitch bend

Down

This sets the pitch change when you move the pitch-bend wheel Down. It ranges from Off, down to - 48 semitones (-4 octaves)

Up

This sets the pitch change when you move the pitch-bend wheel Up. It ranges from Off, up to + 48 semitones (+ 4 octaves).

Filter section

The sound generated in the oscillators is passed into the filter. Here, the selected filter type alters the harmonic content of the sound coming from the oscillators.
Predator also has an extra secondary filter called F2 in case extra changes are needed.

Main Filter

Cutoff

This sets the filter's frequency where the filter starts altering the sound. For instance, if you set the Cutoff to 2000Hz and use a 12dB Lowpass filter it reduces any frequencies above 2000Hz, so for instance a sound at 4000Hz will be reduced by 12dB. The Cutoff frequency can be static at one frequency, but you can also modulate the Cutoff frequency with the Filter Envelope, Keyboard tracking, Modulation Wheel and LFO. Therefore there is a line on Predator front-end, which shows that these controls alter the Cutoff frequency.
The modulation doesn't move the Cutoff control knob from its initial position, but if you add any kind of modulation (change the silver colour control knobs) the Cutoff frequency is internally modulated.

Resonance (Q)

The resonance controls how much the sound at the Cutoff frequency is the increased, the resonance "emphasises" this frequency. As you increase resonance it gets more and more pronounced till the filter "self-oscillates". So basically the resonance is feedback onto the Cutoff frequency.
Note: the 6dB filter types are unable to self-oscillate, and in Comb filter the resonance controls the comb filters feedback.
To hear what resonance does, the best thing to do is to try changing it. If you open the LFO modulation you will hear that the Cutoff frequency starts to move. Opening the Resonance emphasises this movement.
There is a special mode to create resonance sounds without using the oscillators. This was originally only possible with analog synthesizers. To use these special resonance sounds, you need to turn off all the oscillators. One word of caution: this type of resonance sound can be very loud, so be careful with the volume. Also it produces a bit of noise artefacts.

Filter mode

Bypass	The filter is bypassed and the sound passes through unaffected
6dB LowPass	Low frequencies pass through this filter; frequencies above the Cutoff frequency are reduced by 6dB per octave. For example: a frequency 2000Hz is 6dB softer in volume if the Cutoff frequency is set to 1000Hz.
6dB HighPass	High frequencies pass through this filter, those below the Cutoff frequency are reduced by 6dB per octave. The filter is open if the Cutoff frequency knob is fully turned left.
12dB LowPass	Low frequencies pass through this filter; those above the Cutoff frequency are reduced by 12dB per octave.
12dB LowPass 2	12db LowPass filter with an alternative tonal character

12dB HighPass	High frequencies pass through this filter; those below the Cutoff frequency are reduced by 12dB per octave. The filter is fully open if the Cutoff frequency control knob is fully turned left.
12dB HighPass 2	12db HighPass filter with an alternative tonal character
18dB LowPass	Low frequencies pass through this filter; those above the Cutoff frequency are reduced by 18dB per octave.
18dB HighPass	High frequencies pass through this filter; those below the Cutoff frequency are reduced by 18dB per octave. The filter is fully open if the Cutoff frequency knob is fully turned left.
24dB LowPass	Low frequencies pass through this filter; those above the Cutoff frequency are reduced by 24dB per octave.
24dB LowPass 2	24dB LowPass filter with an alternative tonal character
24dB HighPass	High frequencies pass through this filter; those below the Cutoff frequency are reduced by 24dB per octave. The filter is fully open if the Cutoff frequency knob is fully turned left.
24dB HighPass 2	24dB HighPass filter with an alternative tonal character
12dB BandPass	This filter mode is a combination of 12dB LowPass and 12dB HighPass filters. Only those frequencies near to the filter Cutoff frequency pass through (a band of frequencies), the resonance (Q), controls the width of this band so that low & high frequencies are removed.
12dB BandPass 2	12dB BandPass filter with an alternative tonal character
24dB BandPass	This filter mode is a combination of a 24dB LowPass and 24dB HighPass filter. Only those frequencies near the filter Cutoff frequency pass through (a band of frequencies), the resonance (Q) controls the width of this band, so low & high frequencies are removed.
24dB BandPass 2	24dB BandPass filter with an alternative tonal character
12dB Notch	Those frequencies near to the filter Cutoff frequency are reduced in volume (12dB), the resonance controls the width of this removal region.
12dB Notch 2	12db Notch filter with an alternative tonal character
24db Notch	Those frequencies near to the filter Cutoff frequency are reduced in volume (24dB) , the resonance controls the width of this removal region.
24db Notch 2	24db Notch filter with an alternative tonal character
36dB LowPass	Low frequencies pass through this filter; those above the Cutoff frequency are reduced by 36dB per octave.
36dB HighPass	High frequencies pass through this filter; those below the Cutoff frequency are reduced by 36dB per octave. The filter is fully open if the Cutoff frequency knob is fully turned left.
Comb Positive	This is a very short delay, which emphasises the comb filter frequency. The Cutoff frequency controls the length of this delay and resonance (Q) the feedback of the filter.
Comb Negative	This is a very short delay, which reduces the comb filter frequency. The Cutoff frequency controls the length of this delay and resonance (Q) the feedback of the filter.
Vox filter	Vocal Filter, which adds a voice-like filtering to the sound. In Vox filter mode, the distortion knob controls the vowel of the filter.
Formant 2 Band	Vocal Filter, which creates a vocal character based on 2 bands
Formant 4 Band	Vocal Filter, which creates a vocal character based on 4 bands

Pre-Filter Distortion

It is possible to overdrive the oscillator sound ahead of going into the Filter. This can be done in a smooth way or in an edgy way. For the edgy setting, the following applies:

- Overdrive of the filter starts at about -3dB with a sinus waveform using only 1 oscillator
- Overdrive of the filter starts at -9dB with a sinus waveform using 2 oscillators
- Overdrive of the filter starts at -12dB with a sinus waveform using 3 oscillators

So be careful with the volume of the oscillators if you are in edgy filter overdrive mode. The smooth overdrive is more "subtle" and less aggressive than the edgy setting. Also distortion in smooth setting starts only if you open up the drive amount. Try it out yourself and open the resonance (Q) to hear the difference in sound with both distortion modes.

Cutoff Frequency Modulation

Envelope

Adds a positive or negative Cutoff frequency Envelope amount. The 'Envelope' is inside the Filter section itself. Keep in mind that if you use negative modulation, that the envelope is reversed.

Velocity

Adds a positive or negative Cutoff frequency modulation by the amount of velocity used. If Predator is in arpeggiator mode (Play mode) the arpeggiator velocity settings are active.

Keytrack

Adds a positive or negative Cutoff frequency modulation by the keyboard note position. With positive amount, the Cutoff frequency goes up the higher you play the keyboard With negative amount, the Cutoff frequency goes down the higher you play the keyboard.

LFO

Adds negative or positive Cutoff frequency modulation by the 'Filter LFO'.

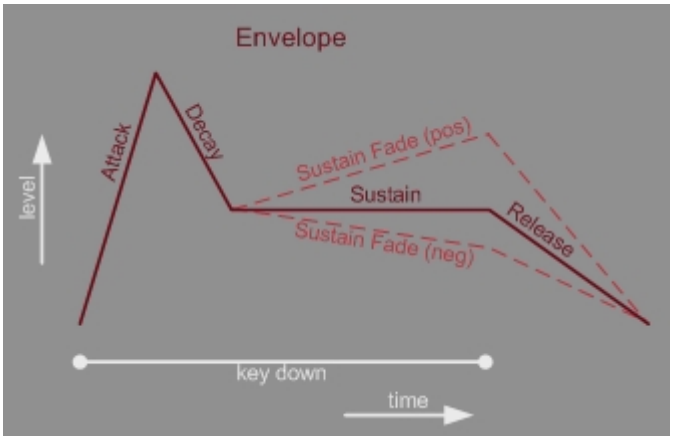
Mod.Wheel

Adds negative or positive Cutoff frequency modulation by the 'Modulation Wheel'.

Filter Envelope

The Filter Envelope is assigned to the main filter Cutoff Frequency of Predator and the amount is controlled by the Env amount in the Filter section. An envelope is a time-based modulation section in a synthesizer. If you press a key it moves from 0% up to 100% and back to 0% when you release the key.
Between this you can adjust the time how it does do this. The first part is know as the attack, this is the time it takes to reach 100% The second part is know as the decay, this is the time it takes to reach the sustain (the final) level. If this level of sustain is for instance 50, the decay goes down to 50% and stays there. Finally when you release the key, the envelope goes to 0%, during the period that you just set.
An extra feature inside Predator is Fade. Fade adds a second part to the sustain level, when it is positive, the sustain level goes up to 100% over a set period, if it is negative then the sustain level goes down to 0% over a set period. This is a handy feature if you want the

Cutoff frequency of the filter to rise whilst holding the keys. Listen to preset "Syntho Brass" in the first bank.



To hear the full effect of the Filter Envelope you have to open the Env amount, which you can find in the filter section next to the Cutoff Frequency. The amount can be positive or negative.

Attack

An envelope always rises from 0 to 100% and back to 0% when the key is released. Attack controls how fast it rises to 100%. So if you open the Attack control knob, it takes longer to go from 0 to 100%. With Attack closed, the envelope starts at 100%.

Decay

After the attack stage, with the envelope at 100%, the decay stage is reached. Decay reduces the envelope level to the sustain level over a set time. So if you use a long decay, it takes longer to reach the sustain level. If the sustain level is 100% the Decay has nothing to fall to and so the sustain stage is reached immediately after the attack.

Sustain

This is level of the sustain stage. After the attack & decay stage, the envelope goes into the sustain stage and remains here for as long as you have a key pressed down. The sustain level is the level of this sustain stage. Sustain level in the Filter envelope means the level of where the Cutoff frequency parameter stays as long as you hold the key(s).

Sustain fade

If the fade is set to off, the sustain remains at the sustain level i.e. it is a classic sustain. If you open the fade amount in a positive direction the sustain changes into a second attack. So after the Decay reaches the Sustain level it starts rising to 100% again and the time it takes to reach 100% is set by the Fade time. If you open the fade amount in a negative direction the sustain changes into a second decay. So after the Decay reaches the Sustain level it starts falling to 0% again and the time it takes to reach 0% is set by the Fade time.

Release

After you have released a key (note), the release stage starts. The envelope then decays from the sustain level to 0%, the time it takes is set with the release knob.

Filter LFO

An LFO (Low Frequency Oscillator) is an oscillator at a very low pitch/frequency. In Predator the LFO can have a frequency between 0.03Hz and 27.50Hz. The Predator Filter LFO produces changes to the Filter Cutoff frequency. You need to open the LFO amount in the 'Filter section' to hear the results. Often used is the sine waveform, here the Filter Cutoff frequency rises up and down. But also using other waveforms with the LFO can be used to produce interesting results.. Predator has the option to "tempo base" the LFO, which makes it a great feature for changing sounds in a musical tempo based way.

Waveform

Sine, Triangle, Saw Up, Saw Down, Square and S&H Here you can set the type of wave, this modulates the Filter Cutoff Frequency. Sinus and Triangle are often used because they produce a modulation that goes up and down smoothly. The other waveforms are more suitable for FX or special sounds. Try selecting another waveform with the preset "Moving Filter", which you can find in the first bank of Predator, and see what it sounds like.

Speed

This controls how fast or slow the LFO is running. If the control Sync is set on then the speed is tempo based.

Sync

If you turn Sync on, the Speed of the LFO will be tempo based. So it will synchronise with the song tempo. To find the right setting you need to adjust the Speed parameter.

Mode

Poly, Free and Mono - This controls how the LFO responds when you hit one or more keys.

Poly mode	each note you play has its own Filter LFO and each LFO starts from the zero position. Poly mode is useful for complex sounding Filter LFO modulation.
Free mode	the LFO is free running and all the notes share the same LFO.The LFO is always running and does not reset when you press a key.
Mono mode	similar to free mode. All the filter LFOs have the same value, however when you press a key in Mono mode, all LFOs are reset to their initial start position

Amount control

Here you can select the controller to adjust the LFO modulation inside the 'Filter section'. This can be a positive or a negative amount. So you can increase the modulation or decrease the modulation.
Look at preset "Moving Filter" in the first bank as an example. You can see that in this preset the Mod Wheel is assigned with -38% amount. So if you open the Mod Wheel the LFO modulation of the 'Filter section' will be reduced. In fact with a fully open Mod Wheel the LFO does not modulate the filter anymore. This happens because the LFO amount in the filter is 38% and the modulation control is set to -38%.

Filter 2 section

Filter 2(F2) is an extra filter after the main filter that you can turn on or off. Great if you want to take away bass from a sequence sound or as extra filter to shape the sound. In the 'Free modulation section' you can select the Filter2 Cutoff frequency as a destination. So you can still use a 'Free Envelope', 'Free LFO' or any other midi controller to dynamically control filter 2's Cutoff frequency.

Cutoff

This sets the filter's frequency where the filter starts altering the sound. For instance, if you set the Cutoff to 2000Hz and use a 12dB Lowpass filter it reduces any frequencies above 2000Hz, so for instance a sound at 4000Hz will be reduced by 12dB. The Cutoff frequency can be static at one frequency, but you can also modulate the Cutoff frequency with the Filter Envelope, Keyboard tracking, Modulation Wheel and LFO. Therefore there is a line on Predator front-end which shows that these controls alter the Cutoff frequency.
The modulation doesn't move the Cutoff control knob from its initial position, but if you add any kind of modulation (change the silver colour control knobs) the Cutoff frequency is internally modulated.

Filter mode

The secondary filter (Filter 2) can operate as any of the filter types that are available for the main filter section. In addition it offers two additional modes, which involve the cascading and routing of filters and oscillators. These are explained below.

Split 1 — In this mode, Filter 1 and Filter 2 are in parallel, so that Filter 2 has the same properties, such as envelope, filter tracking etc, as Filter 1. The only difference is that Filter 2's frequency can be altered independently from Filter 1's.
Using Filter Pan in the advanced screen, you can pan Filter 1 and Filter 2, from both being centered, to Filter 1 being panned left and Filter 2 being panned right.

Split 2 — In this mode, Oscillator 1 goes into Filter 1, Oscillator 2 goes into Filter 2 and Oscillator 3 goes into both Filter 1 and 2. Filter 1 and Filter 2 are also in parallel and joined, so that Filter 2 has the same properties, such as envelope, filter tracking etc, as Filter 1. The only difference is that Filter 2's frequency can be altered independently from Filter 1's.
Using Filter Pan in the Advance screen, you can pan Filter 1 and Filter 2, from both being centered, to Filter 1 being panned left and Filter 2 being panned right.

Amplifier section

The audio that comes from the 'Filter section' moves on to the 'Amp section', this amplifies the signal and controls the volume and panning. An important controller of the Volume is the Volume Envelope. This controls the volume contour over time. Also in the Amp section is velocity control, this controls the response of Predator to the velocity of the keyboard or arpeggiator.

Volume

This sets the overall volume of the preset.

Pan

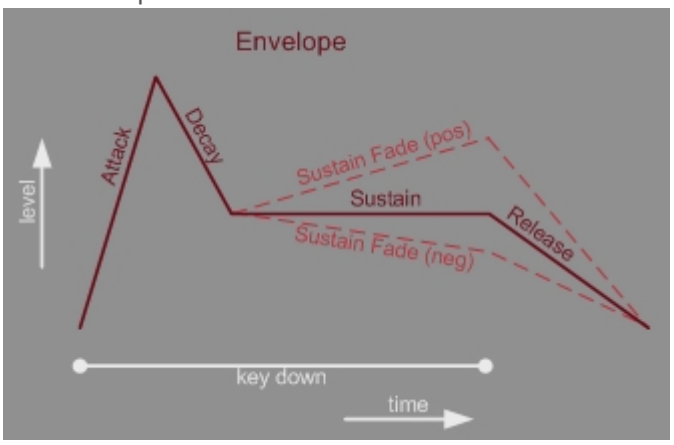
This sets the overall panning of the presets, from totally left, to centred, to totally right.

Vel > vol

This sets the amount volume depends on the velocity of the keys pressed (how hard you strike the key), either normally or in the arpeggiator if selected.

Volume Envelope

This envelope controls the volume contour over time.



An envelope is a time based modulation inside a synthesizer. If you press a key it moves from 0% up to 100% and back to 0% when you release the key. By using the Volume Envelope you can adjust the amount of time it takes to do this.
The first part is known as the attack stage, this is the time it takes to reach 100% The second part is know as the decay, this is the time it takes to reach the sustain (the final stage) level. If this level of sustain is for instance 50, the decay goes down to 50% and stays there. Finally when you release the key, the envelope goes to 0% , during the period that you have set. image envelope An extra feature inside Predator is Fade. Fade adds a second part to the sustain, when it is positive the sustain level goes up to 100% over a set period, if it is negative the sustain level falls to 0% over a set period. The amp envelope controls how the main volume of each note sounds.

Attack

An envelope always rises from 0 to 100% and back down to 0% when the key is released. Attack controls how fast it rises to 100%. So if you open the Attack knob, it takes longer to go from 0 to 100%. With Attack closed, the envelope starts at 100%.

Decay

After the attack stage, with the envelope at 100%, the decay stage is reached. Decay reduces the envelope level to the sustain level over a set time. So if you use a long decay, it takes longer to reach the sustain level. If the sustain level is 100% the Decay has nothing to fall to and so the sustain stage is reached immediately after the attack.

Sustain

This is the level of the sustain stage. After the attack and decay stage, the envelope reaches the sustain stage and remains here for as long as you have a key pressed down. The sustain level is the level of this sustain stage. Sustain level in the volume envelope means that the level of the volume parameter will stay as long as you hold the key(s).

Sustain fade

If the fade is set to off, the sustain remains at the sustain level i.e. it is a classic sustain If you open the fade amount in a positive direction the sustain changes into a second attack. So after the Decay reaches the Sustain level it starts rising to 100% again and the time it takes to reach 100% is set by the Fade time. If you open the fade amount in a negative direction the sustain changes into a second decay. So after the Decay reaches the Sustain level it stars falling to 0% again and the time it takes to reach 0% is set by the Fade time.

Release

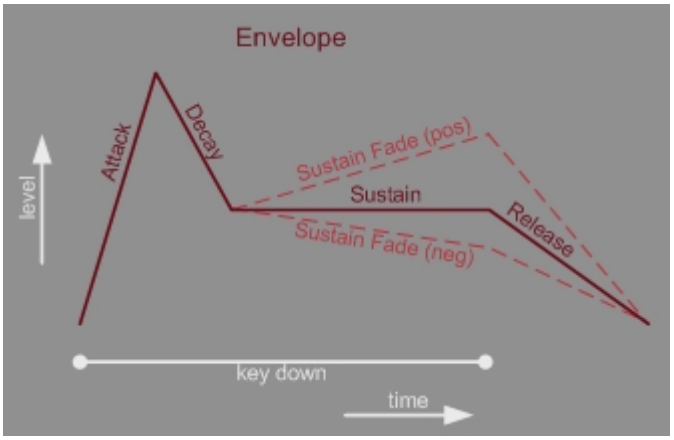
After you have released a key (note) the release stage starts. The envelope then decays from the sustain level to 0% the time it takes is set the release knob.

Free modulation section

The free modulation section is at the bottom left hand corner, it the arpeggiator page is open click on the mod button at the upper right corner of the arpeggiator screen to open the Free modulation section.
This section holds 2 Envelopes, 2 LFO's and a Modulation matrix with 8 slots. The free modulation section is added to give you extra tools for additional soundshaping options. For instance, if you wish to make an FM synthesis sound you can address the Envelope to the FM amount inside oscillators 2 and 3. Or maybe you would like a stereo panning effect by an LFO. Another option is to connect the arpeggiator free or velocity row to other parameters inside Predator.

Envelope 1 and 2

Each envelope has it's own destination. With Envelope 1 you also have the option to control the amount of modulation either by midi or synth part. The destination parameter is the one that will be changed over time by the Envelope. For example the pitch of an oscillator. Listen to preset "Pred Brass" in the first bank.
An envelope is a time-based modulation section in a synthesizer. If you press a key, it rises from 0% up to 100% and back down to 0% when you release the key. Between this you can adjust the time how it does do this.
The first part is known as the attack, this is amount of time it takes to reach 100% The second part is know as the decay, this is the time it takes to reach the sustain (the final) level. If the level of sustain is for instance 50, then the decay falls to 50% and stays there. Finally when you release the key, the envelope lowers to 0%, during the period that you have set.
An extra feature inside Predator is Fade. Fade adds a second part to the sustain, when it is positive the sustain level rises to 100% over a set period, if it is negative then the sustain level falls to 0% over a set period.



Attack

An envelope always rises from 0 to 100% and back to 0% when the key is released. Attack controls how fast it rises to 100%. So if you open the Attack control knob, it takes longer to go from 0 to 100%. With Attack closed, the envelope starts at 100%.

Decay

After the attack stage, with the envelope at 100%, the decay stage is reached. Decay reduces the envelope level to the sustain level over a set time. So if you use a long decay, it takes longer to reach the sustain level. If the sustain level is 100% the Decay has nothing to fall to and so the sustain stage is reached immediately after the attack.

Sustain

Next we have the sustain stage. After the attack & decay stage, the envelope reaches the sustain stage and remains here for as long as you have a key pressed down. The sustain level is the level of this sustain stage. Sustain level in the Free Envelope means that the "level"(amount) selected in the destination parameter stays for as long as you hold down the key(s).

Sustain fade

If the fade is set to off, the sustain remains at the sustain level i.e. it is a classic sustain If you open the fade amount in a positive direction the sustain changes into a second attack. So after the Decay reaches the Sustain level it starts rising to 100% again and the time it takes to reach 100% is set by the Fade time. If you open the fade amount in a negative direction the sustain changes into a second decay. So after the Decay reaches the Sustain level it starts falling to 0% again and the time it takes to reach 0% is set by the Fade time.

Release

After you have released a key (note) the release stage starts. The envelope then decays from the sustain level to 0%, the amount of time this takes is set by the release knob.

VEL > time

This controls how the envelope responds to the velocity of notes pressed. If you use a positive amount, the envelope times get shorter for higher velocities. If you use a negative amount, the envelope times get longer for higher velocities.

KT > time

This controls how the envelope responds to the notes pressed. If you use a positive amount, the envelope times get shorter for higher notes. If you use a negative amount, the envelope times get longer for higher notes.

Sync

If you would like to trigger the free envelope to the host sequencer’s tempo, click the sync button so that the red LED lights up.

Destination Envelope 1

This is where you can select the destination the Envelope 1 modulation. Listen to preset "Pred Brass" in the first bank. In this preset the fine pitch of Oscillator1 is modulated by Envelope 1.

Amount Envelope 1

This is where you can select the amount of Envelope 1 modulation. This can be positive or negative modulation depending on the selected parameter. Listen to preset "Pred Brass" in

the first bank. Again, in this preset the fine pitch of Oscillator1 is modulated. Increase or decrease the amount to hear how this changes the sound.

Amount control Envelope 1

This is where you select the controller for controlling the amount Envelope 1 parameter. With amount you can set the how deep it controls the amount Envelope1 parameter. This can be a positive or negative amount. So that you can either increase the modulation or decrease the modulation.
Listen to the preset "Psy FX 01" in the first bank. In this preset the Mod.Wheel controls the amount of Envelope 1 modulation. If you open the Mod.Wheel you will hear that the pitch fall stops in this preset.

Destination Envelope 2

This is where you can select the destination and amount of Envelope 2 modulation. Listen to preset "Pluck FM" in the first bank. In this preset the FM 3 amount of Oscillator3 is being modulated by Envelope 2.

Amount Envelope 2

This is where you select the amount of Envelope 2 modulation. This can be a positive or negative amount of modulation depending on the selected parameter. Listen to preset "Pluck FM" in the first bank. In this preset the FM 3 amount of Oscillator3 is being modulated by Envelope 2. Decrease the amount to hear the results.

LFO 1 and 2

Each LFO has it's own destination. The Predator LFO continuously changes this destination control over time With LFO 1 you also have the option to control the amount of modulation by midi or synth part. An LFO (Low Frequency Oscillator), is an oscillator at a very low pitch/frequency. In Predator the LFO can have a frequency between 0.03Hz and 27.50Hz. Used often is the sine waveform. But the other waveforms of the LFO can also be used and produce interesting results.. Predator has the option to "tempo base" the LFO, which makes it a great feature for changing sounds in a musical tempo based way.

Waveform

Sine, Triangle, Saw Up, Saw Down, Square and S&H This is where you can set the type of wave that modulates the LFO destination. Sinus and Triangle are often used because they produce a modulation that goes up and down smoothly. The other waveforms are more suitable for FX sounds or special sounds.

Speed

This controls how fast or slow the LFO is running. If the control Sync is set on then the speed is tempo based.

Sync

If you turn Sync on, the Speed of the LFO will be tempo based. So it will synchronise with the song tempo. To find the right setting you need to adjust the Speed parameter.

Mode

Poly, Free and Mono. This controls how the LFO responds when you hit one or more keys.

Poly mode	each note you play has its own Filter LFO and each LFO starts from the zero position. Poly mode is useful for complex sounding Filter LFO modulation.
Free mode	the LFO is free running and all the notes share the same LFO. The LFO is always running and does not reset when you press a key.
Mono mode	similar to free mode All the filter LFO's have the same value, however when you press a key in Mono mode, all LFO's are reset to their initial start position.

Destination LFO 1

This is where you can select the destination of the LFO 1 modulation. Listen to preset "Hipass arp" in the first bank. In this preset the Filter2 Cutoff frequency is modulated by LFO1.

Destination amount LFO 1

This is where you can select the amount of LFO1 changes the LFO 1 destination control. This can be a positive or negative modulation depending on the selected parameter. Listen to preset "Hipass arp" in the first bank. In this preset the Filter2 Cutoff frequency is modulated. Increase or decrease the amount to listen to what it does.

Amount control LFO1 destination

This is where you can adjust how much LFO 1 's amount is changed by the modulation source and also which modulation source is used. This can be a positive or a negative amount. So you can increase the modulation or decrease the modulation.
Look at preset "Hipasser arp" in the first bank as an example. You can see that in this preset the Mod.Wheel is addressed with -81% amount. So if you open the Mod.Wheel the LFO 1 modulation inside the destination will be less. In fact with a fully open Mod.Wheel the LFO 1 does not modulate the destination anymore. This happens because the LFO 1 destination amount is 81% and the modulation control is set to -81%.

Destination LFO 2

This is where you can select the destination of the LFO 2 modulation. Listen to the preset "Hipass arp" in the first bank. In this preset the Amp panning is modulated by LFO2.

Destination amount LFO 2

This is where you can select the amount of LFO2 changes the LFO 2 destination control. This can be a positive or a negative modulation depending on the selected parameter. Listen to the preset "Hipass arp" in the first bank. In this preset the Amp panning is modulated. Increase or decrease the amount to listen to what it does.

Free Mod 1 - 8

Predator has 8 slots to set your own modulation connection. Clicking on a modulation number label bypasses that modulation.
There are 40 modulation sources that include midi sources and synth sources. These sources connect to 65 modulation destinations inside the Predators synth. There is also an amount control for each connection. So you could for instance control a modulation by a Free Envelope.

Source 1 - 8

This is where you can select one of the 40 modulation sources. Listen to the preset "Control arp" in the first bank. In this preset at source 1, the Arpeggiator velocity is selected as modulation source. In source 2, the Arpeggiator free row is selected as modulation source.

Destination 1 - 8

Here you select one of the 65 modulation destinations. Listen to preset "Control arp" in the first bank. In this preset destination 1 modulation is sym (symmetry) of Osc.1. In source 2, the Filter Resonance is selected as modulation destination.

Destination amount 1 - 8

This is where you select the amount of the modulation. This can be a positive or a negative modulation depending on the selected parameter. Listen to the preset "Control arp" in the first bank and do change the amount of destination 2 to hear what it does.

Amount control 1 - 8 destination

This is where you select the controller for controlling the destination amount parameter. With amount you can set how much this control alters this destination amount value. This can be either a positive or a negative amount. So you can increase the modulation or decrease the modulation.
Look at the preset "Control arp" in the first bank as an example. You can see that in this preset the Osc.1 sym (symmetry) is addressed with 0% amount. So if you now open the Mod.Wheel the modulation inside the destination will be increased.

Arpeggiator section

Predator offers a unique and very powerful arpeggiator , because it not only offers many features , but it can be used also as a sequencer. This because you have the option to tune a step and to tie a step in two different ways. A classic arpeggiator (arp) plays one note after another of all the keys that are held down. Predator also offers a chord mode which triggers the played notes as a chord.
The arpeggiator has a built in sequencer for making rhythmic patterns. Each step of the pattern sequencer offers on/off, Tie, Slide, Tune, Velocity settings and also, Free modulation settings. To turn on the arpeggiator select the 'Play Mode section' of Predator. To see the arpeggiator controls click on the > Arp button if the 'Free modulation section' is open.

Steps

Number of steps in the arpeggiator sequencer. This can be from 1 to 16 steps

Speed

Speed of the arpeggiator relative to the host tempo, from ¼ the tempo up to 4 times the tempo.

Mode

This controls how the arpeggiator plays any keys that are held down.

Up	the notes are played in the order they are pressed
Down	the notes are played in the reverse order to which they are pressed
Up/Down	the notes are played in the order they are pressed then in reverse order
Down/Up	the notes are played in reverse order then normal order
Random	from the pressed keys a random one is played
Ordered	the notes are ordered from lowest to highest and are played in that order
Rev. Ordered	the notes are ordered from highest to lowest and are played in that order
Ordered Up/Down	the notes are ordered and then played from the lowest to highest and then back to lowest
Ordered Down/Up	the notes are ordered and then played from the highest to lowest and then back to highest
Chord	chord is a special mode where all the pressed keys are played at the same time so producing a chord
Mod	the arpeggiator can be used as modulator in "free mod" section.

Octaves

Determines how many octaves the arpeggiator plays. For instance if you set octave to 2, then it will play the pressed notes firstly in the original octave and then the pressed notes an octave higher. So pressing A4, C4 and E4 in the up mode with octave set to two plays A4, C4, E4 then A5, C5 and E5.

Tie mode

normal	steps with tie do not have an individual slide, tune, velocity and free setting
special	steps with tie do have still individual slide, tune, velocity and free settings
toggle 1	plays in special mode and then normal mode and so forth
toggle 2	plays in normal mode and then special mode and so forth

Listen to the presets "SeqArp tie normal" and "SeqArp tie seq" to see what great things you can do using this feature.

Lock

This locks the current arpeggiator, so when you change presets the arpeggiator stays the same. There are 3 modes:

- Off: locking is turned off
- On: locking is turned on, the arpeggiator stays the same when you change preset, but it can't be altered and the current preset is not permanently changed.
- Set: the current preset's arpeggiator is permanently changed to the locked arpeggiator and locking is turned off.

Host sync

This turns on / off the arpeggiator syncing to your host sequencer. Depending on your host and also what you are doing you may want this to be either on or off. Default is on.

Latch

When latching is turned on you don't need to keep a key pressed down for that note to be included in the arpeggiator. For instance if you have pressed C4 then released it and then pressed A4 and then released it, when the latching is on the arpeggiator will play C4 and then A4. Turning on / off the latching clears the arpeggiator of any notes. Tip: you can use also the sustain pedal to Latch and Unlatch the arpeggiator.

File

If you press this button, you have the option to load or save the arpeggiator that you have made to your harddisk. There is already a folder containing some arp patterns. All settings of the arpeggiator are saved and loaded using this function. The copy and paste function are there to copy a arpeggiator setting into another preset inside the bank. Note that you always need to save the new preset or the whole bank. The Clear function will reset all arpeggiator parameters to their default setting.

Arp Key Entry on/off

When you press a note it will be entered into the arp pitch's row at the current step. C3 (midi 60) is set to 0 and the root key. So you should play notes in the key C.

Step length

This controls how long each arp note/step is. Note that a 100% setting is needed if you use a tied step!

Swing

This controls the swing of the arpeggiator, this is the difference in timing between consecutive notes and it gives a more human/swing feel to the arpeggiator.

Slide

This control sets the time taken for notes to slide from the previous note's pitch to the current one. This only applies to notes which have sliding on in their steps. Note, always open the slide amount if you use slide in steps.

Vel / keyboard

This controls whether Predator's velocity parameter settings are controlled by the arpeggiator sequencer step settings (at 0%) or the pressed key's velocity (at 100%) or a combination of the two values.
Try preset "Arpoharp velocity keyb." and look at the setting. Here the input of the keyboard is in control. The velocity settings in the steps make no difference. Also try preset "Arpoharp velocity arp" and look at the settings. Here the input of the keyboard has no influence. The velocity settings of the steps determine the way that Predator responds to velocity. Of course you can also mix between these two settings.

Pattern/sequencer section

The main section of the arp screen is taken up with the Arpeggiator pattern/sequencer screen. This sequencer allows you to have much more complex arpeggiator patterns than in most other synthesizers. The arp sequencer can have up to 16 steps. The number of steps is set using the Steps selector. Each step in the arp sequencer can have different properties that alter how that arp note is played.
The current selected arp step is shown in orange, and you can select several arp steps by alt + left clicking on the start and end step. Right Clicking in the arp screen brings up an arp menu which allows you to copy, paste, clear, move, reverse, randomize and turn off / on controls, for both selected steps or all steps.

Step 1-16 on/off

This shows the arp sequencer step number. Clicking on it turns this step On or Off. If it is set to off when an arpeggiator is played a 'rest' occurs rather than a new note at this step.

Tie

Tie controls whether the note is 'tied' at the selected step. You can toggle tie by clicking in the step box. When a step is in tie, the current arp note continues to play the step ahead. So it allows you to play notes which are twice (or more) as long as the normal arp notes. In other words, you can tie notes together using this function.
Keep two options in mind when using notes with tie:
1. You need to have the arp step length control set to 100% to make the steps tied.
2. You have two ways of using tie notes:

normal	steps with tie do not have an individual slide, tune, velocity and free setting
special	steps with tie do have still individual slide, tune, velocity and free settings

Listen to the presets "SeqArp tie normal" and "SeqArp tie seq" to see the excellent results you can achieve using this feature.

Slide

Slide controls determines whether the note slides from the previous note's pitch to the current note's pitch or not. The speed of sliding is controlled by the Slide amount knob. Clicking on the slide box inside turns on / off sliding.
Note: Sliding does not work in 'Chord' mode.

Tune

Tuning offset of the arp note, from -36 semitones to +36 semitones. If you use tie in a step, the tune does not work at that step if the arpeggiator is in tie mode normal.

Vel

Velocity of the arp sequencer step/note. This is used in combination with the vel /Keyboard control to control how the velocity of each arp sequencer step is controlled by the arp sequencer and how much by the velocity of the played note. If you use tie in a step, the velocity does not work at that step if the arpeggiator is in tie mode normal.

Free

Free control allows you to control other properties of Predator (i.e. panning etc) using the arpeggiator. This is because you can use the Free control in the Free modulation section to modulate other controls by selecting the source to be Arp Free. If you use tie in a step, the free setting does not work at that step if the arpeggiator is in tie mode normal.

Play mode section

In Play Mode you can control how Predator responds to notes played, either polyphonic or monophonic or by passing them into the arpeggiator.
The portamento is set here as well as the chord memory.

Play modes

Poly	Synthesizer is in polyphonic mode and has 16 voices.
Mono1	Synthesizer is in monophonic mode 1 and uses 1 voice. Only a single note can be played at once, pressing another key releases the previous note.
Mono2	Synthesizer is in monophonic mode 2 and uses 1 voice only. If you have a key pressed down and then press another key the new note plays, and if you then release this note the original held note is retriggered.
Mono3	Same as Mono 2 mode but any new note's amp envelope level starts at the level of the last played note.
Legato	Synthesizer is in monophonic mode and uses 1 voice. Similar to mono, but if you have a key pressed down and then press another key the note is not retriggered (i.e. envelopes don't restart), and if you release this second key the pitch returns to the original note
Legato2	Same as Legato mode but any new note's amp envelope level starts at the level of the last played note
Arp	Arpeggiator is played. See arpeggiator section for the settings.
Unison2	This combines 2 voices on one note. If you use the unison detune these 2 voices are detuned resulting in a phat sound. Note in Unison2 you only have 8 notes polyphonic limit
Unison4	This combines 4 voices on one note. If you use the unison detune these 4 voices are detuned resulting in a phat sound. Note in Unison4 you only have 4 notes polyphonic limit
Unison6	This combines 6 voices on one note. If you use the unison detune these 6 voices are detuned resulting in a phat sound. Note in Unison6 you only have 2 notes polyphonic limit

Uni detune

Unison detune controls the detuning between the stacked voice in Unison2/4/6 play modes. So Predator has to be in unison2/4/6 mode for this feature to work.

Stereo Spread

Stereo spread places the unison voices in a stereo image, and in doing so widens the sound and creates a spatial effect.

Port

Portamento speed sets the time or rate of how notes change in pitch from the previous note played to the current note played.

Port modes

Off	No portamento , the note goes immediately to the played one
Constant Rate	The portamento changes at a constant rate, greater keyboard note ranges take a longer time.
Constant Time	Always takes the same time to portamento between any notes.
Held Rate	Same as Constant Rate but portamento only appears if you are holding a note and then playing another.
Held Time	Same as Constant Time but portamento only appears if you are holding a note and then playing another.

Chord

The Chord memory control enables you to record chords. Up to 8 notes can be memorised and it is also saved within the preset. Clicking the chord gives you the options.

Off	Chord memory is Off and has no effect
Learn	Chord memory will store any 8 notes you play. First, play the root note and then the other notes of the chord.
Play	The chord memories will be played , so if you pressed C, E & G while in chord learn mode , then press D in chord play mode , it will play the chord D , F# & A

Please look in the "Advanced panel". There you have the option to set the strum timing for the chord. This strumming can be set to be tempo-based. Listen to the "cluster" sounds inside of the "Ambient bank" of Predator what cool things you can do with it. The advanced panel can be reached by clicking at it in the preset section.

Demo

If you press this button a demo C3 note is generated. Great to test audio from Predator and also a good way of previewing sounds.

Preset section

In this section you control the presets, banks, the preset variations and the preset morphing options of Predator.

Preset

Here you can select the preset, either by clicking on the 'preset screen' itself which pops up a menu where you can select the preset. You can also use the < and > to scroll through the presets of the selected bank as well. Next to that the preset screen has load / save / rename / copy / paste and you can also clear a preset to a default setting.
Note: if you change a preset inside a bank, you need to save that preset within the whole bank to keep the changed preset. To keep the original preset banks, always save the bank with a new name.

Bank

This is where you can select the bank, either by clicking on the bank screen and selecting from the menu or by using the < and > to scroll through the different types of banks. All Predator banks are saved inside Predator/Banks folder on your computer. PredatorFX saves its banks inside the Predator/FXBanks folder. It is recommended that you save your own Predator or PredatorFX banks inside their own folder/file.
In the factory banks of Predator the last preset 110 up to 128 are left empty as morphing preset spots (read preset morphing section below) To save a bank or to load a bank you need to use the file function inside this section. Note: if you change a preset inside a bank, you need to save that preset within the whole bank to keep the changed preset. To keep the original preset banks, always save the bank with a new name.

Manager

Brings up the preset / bank manager, see Bank Manager section for more details

Edit / Orig

Once you have edited a preset, the 'Edit/Orig' button will light up. If you then the click on the Orig button it will return the preset to it's original settings, if you then click on the Edit button, it will return it to it's edited version. This allows you to toggle between the original preset and the edited one, to hear the differences to any changes that you have made.
Note: if you change a preset inside a bank, you need to save that preset within the whole bank to keep the changed preset. To keep the original preset banks, always save the bank with a new name.

Variation A-D , Amount

This is a unique feature that only Predator offers. It is an 'intelligent' tool to produce useful preset variations. Unlike many other "random" systems this produces 99% useful preset variations
You have 4 options, the button A , B , C & D . Each option only changes certain preset controls.
A - C changes the synthesizer parameters.
D changes only the FX section properties.
The amount of variation is set by the 'variation amount' control knob, a small value produces small changes, and big values produce big changes If you use this function you can always go back to the original preset by pressing orig or return back again by pressing edit.

File

load bank	loads a bank from the computer HD. Default directory is the Predator/Banks (synth) and Predator/FXbanks (PredatorFX)
save bank	saves a bank to the computer HD. Default directory is the Predator/Banks (synth) and Predator/FXbanks (PredatorFX)
load preset	loads a preset inside the selected bank
save preset	saves a preset to the computer HD
copy preset	copies a preset, which allows you to move it to another spot in the bank or to another bank. Note: bank needs to be saved again
paste preset	paste a copied preset to another spot in the bank or to another bank
rename preset	sets the name of the selected preset. Note: bank or preset needs to be saved again
default preset	sets the preset to a default preset
preset manager	brings up the preset / bank manager screen

Quick Browser

Use the right mouse button (or control-click on Mac) inside the Preset display menu to open the "Quick Browser". This "Quick Browser" shows all the available banks and its presets. If you then click on a preset, that bank and preset will be loaded.

Recently Browsed	This shows a list of all the recently used presets. Clicking on an entry loads in that preset again. Clicking on "Clear Recent" removes all entries.
Favorites	This shows a list of presets selected as being Favorites presets. Clicking on an entry loads in that preset. You can select a preset to be a Favorite by clicking on "Add Current to Favorites". "Remove Current from Favorites" removes the current preset from the Favorite list, and "Clear Favorites" removes all entries. The Favorite list is stored on the computer's hard-disc, so the list will be remembered the next time you use the plug-in.

Preset morphing

Preset Morphing allows you to morph two presets from the selected bank/banks into a new preset. Browse through the bank to find two presets that you would like to morph into each other. If you find a preset you'd like to morph, select "Store as Morph A" or "Store as Morph B" using the preset menu and this will store the current chosen preset as one of the morphing sources. Then pick an empty spot in the preset bank, for instance the factory preset banks all have empty spots from preset 110 - 128.
Then, click on the A or B field and select "Stored Morph A or B" in the preset selection box(in the Morphing section). This then sets morph source A or B to the previously stored preset. Open the amount knob to set the morphing, between the A and B preset and then hit GEN to generate a morphing preset. You can do this as often as you like until you find a nice morphing setting. You must save the newly generated preset either with the bank or as a separate preset, if you wish to use it again.
Note: in preset box A and B you can also select a preset from the regular preset list.

Advanced section

In this section you can set the special 'advanced' parameters and settings for each preset. If you are in the preset section, click on the *> adv* button to go to this section, clicking on *> Preset* returns to the preset screen.

Analog

This sets the amount of analog drifting, as in an old analog synthesizer. The higher this amount, the more the Predators oscillators will drift in pitch over time. The setting is stored inside each preset.

Global tuning

This sets the global tuning of a preset. Default is 440Hz. Note: this setting is stored inside each preset.

Over sampling mode

This sets the Predator's oscillators over-sampling mode. You can select from 1x, 2x, 4x, 8x, 16x and up to 32x oversampling. The higher oversampling levels use more CPU but the sound produced is better and there is less aliasing noise.
The settings you use depend on the type of sound you wish to make for Predator. For lead sounds and sounds played in the higher keyboard region 8x and 16x is best. If the sound is mostly played in the lower keyboard ranges (such as basslines), the setting 2x or 4x is usually good enough.
Have a listen to preset "Predator SyncLead" in the first bank and switch to a lower setting, you can hear the changes the oversampling level has on the sound
Tip: this is also a nice tool in case you are running out of CPU power. Set Predator to 1x as long as you work on your song. The moment you are ready with the Predator track, freeze or record it by using 16x oversampling. Note: this function is not effective inside PredatorFX.

Over filtering

This is where you can set 'on or off' an additional oversampling filter. It reduces the very high frequencies of the oscillators, thus reducing aliasing noise. You may want to turn this on or off depending on the sound that you are using.
The default setting is off.
Note: this function is not effective in PredatorFX.

Filter Pan

This allows you to pan Filter 1 and Filter 2, when your using the 2nd Filter's Split modes. At 0% both filters are centered, and at 100% Filter 1 is panned left and Filter 2 is panned right. The default setting is 50%, so if you switch a current preset to "Split 1" or "Split 2" the setting is 50%.

Attack shape

This changes the curvature of all Predator's envelope Attack stage. From Exponential (negative values) to linear (0) to Logarithmic (positive values).
The default is linear (0).
Note: this setting is saved inside each preset, so always check this if you build a new preset.

Decay / Release shape

This changes the curvature of all Predator's envelope Decay/Release stages. From Exponential (negative values) to linear (0) to Logarithmic (positive values).
The default is linear (-20%), which is good for most synth sounds.
Tip: for Pad sounds 0% is an excellent setting.
Note: this setting is saved inside each preset, so always check this if you build a new preset.

Velocity shape

Changes Predator's velocity curvature response to the keyboard input or host input. From Exponential (negative values) to linear (0) to Logarithmic (positive values).
The default is linear (0).
Note: many keyboards already have a built-in velocity curvature response setting. So the default of 0 is probably the best to use. This setting is also saved inside each preset.

Strum

In chord mode, you can set timing offset between the play chord notes, so creating strum effects. The sync button allows you to set this timing in ms or in quarter beats, synced to the host's tempo.

Audio input (PredatorFX only)

Audio input volume

If you use the PredatorFX in your host, you can adjust the input volume here. There are dedicated preset banks for the PredatorFX with examples of how you can use PredatorFX.

FX path

If you are using PredatorFX in your host mixer you can amend the routing here. You have two options:

> Filter	the sound that's fed to PredatorFX goes into the Predator's filter and then into the fx's. Here you can use midi input into the FX to control the volume, filter & free envelopes of PredatorFX. To use the volume envelope you need to have Amp Env Hold set to off.
> FX	Here the sound goes directly into PredatorFx's effects , however the synth part is still running and can be used as a source for the vocoder or for controlling the FX parameters. There are dedicated preset banks for the PredatorFX.

Amp env. Hold

If this function is set on the volume envelope is turned off, so the volume of the amp is not changed by the volume envelope. If you still want to use the a volume envelope, you'll need

to have Amp Env Hold set to off , and have some midi connection into PredatorFX . Now when you press a key the volume envelope is reset and so the volume of the input is changed.

Info fields

Parameter read-out field

The parameter read-out field is located at the lower right corner of Predator. If you change a parameter it displays the exact changing value and the parameter that has been changed. If you also move the mouse over a control, you can see its current "value"

?

If you click this button the Predator PDF manual will open.

Predator logo

If you click on the Predator logo, the plug in flips to reveal its back panel. The back panel allows you to make a number of global settings and displays credits for the plug-in.

FX section

In this section you can configure up to 3 effects for a Predator preset. These are connected in series. The output of FX1 feeds into FX2, and the output of FX2 feeds into FX3. A special feature of Predator is that you can control all Fx parameters by midi or use a Predator modulation source. The quality of the Fx section is of such a high standard that we have created PredatorFX as an effects-only version of Predator.
PredatorFX shows up in the FX list of your host and has its own preset banks which are stored in the Predator/FXBanks folder.

Type

Here you can select one of the 24 effects for each of the 3 FX units of Predator.

Mix

Here is where you determine the balance between the original (direct) signal and the effect output. Turn is fully left and only the original signal is output. The more you move the knob to the right, the more of the effected signal will be added.
If you use PredatorFX in your host mixer within an effect send group, it is recommended to set all of the Mix values to fully right (wet).

Pan

Controls the Panning of the selected Fx.

Fx No

This is where you can select which one of the 3 Fx units that you want to select or edit

Right clicking on the FX LEDs

This brings up the FX Control Menu. This shows the Fx s used and whether it s bypassed or not, also it allows you to load / save / copy / paste & clear FXs, swap the FXs around, and bypass individual FXs .
FX Sync Length allows you to set the delay length in tempo based settings or milliseconds!
The FX number itself shows if the Fx unit is used and whether it is bypassed or not . If the FX unit is not used the Fx number is shown in gray, if it is used then it s shown in black if on, gray if bypassed. You can toggle between a FX being bypassed or not by clicking on the FX number.

Bypass

This bypasses all the 3 Fx units at once. So only the dry signal is heard.

Effect Types

Mono Delay

A mono tempo based delay, great for making rhythmic grooves. For instance the 1/8* (1/8 dotted) is nice for all kinds of arpeggiator or lead sounds. To make the sound a bit spacey, modulation of the length is possible which makes the delay swirl.

Length	Length of the delay set in tempo based settings
Feedback	Feedback of the delay
LP Filter	Low pass filter frequency
HP Filter	High pass filter frequency
Widen	Stereo widening amount
Mod Amount	Delay modulation amount
Mod Speed	Delay modulation speed

Stereo Delay

Two tempo based delays. One delay for each of the audio channels (left and Right). This is useful for making deep pad sounds if you use 1/8* (Left) and 1/4 (right) settings. The Feed Equal option makes it possible to have equal feedback fade time, even if the left and right delay are have other length settings.

Left Delay	Left length of the delay set in tempo based settings
Right Delay	Right length of the delay set in tempo based settings
Feedback	Feedback of the delay
CrossFeed	Feedback between the left / right delay
LP Filter	Low pass filter frequency
HP Filter	High pass filter frequency
Mod Amount	Delay modulation amount
Feed Equal	Equal on makes that both L and R feedback do fade way equal, regardless which length you use.

Comb

The Comb Filter effect uses two joined comb filters where the output of one is fed back into the other one. Comb filters that are very short in delay and has a frequency, which in turn determines the length of this delay.

Comb 1 Freq	Comb Filter 1 Frequency
Comb 1 Feed	Comb Filter 1 Feedback amount
Comb 1 Mod	Comb Filter 1 Feedback modulation amount
Comb 2 Freq	Comb Filter 2 Frequency
Comb 2 Feed	Comb Filter 2 Feedback amount
Comb 2 Mod	Comb Filter 2 Feedback modulation amount
Mod Speed	Feedback tempo based modulation speed

Reverb

This effect reproduces the sound of acoustics in rooms using different sizes and reflections.

Pre-Delay	Pre-delay amount of the reverb signal
Size	Reverb room size
Damp	Reverb damping amount
LP Filter	Low pass filter frequency
HP Filter	High pass filter frequency
Spread	Stereo spreading amount

Length	Length of reverb

Chorus

The chorus is a modulated delay signal which is useful for thickening up the sound and making it sound 'fatter'.

Length	Length of the chorus
Width	Maximum change or modulation to chorus length
Speed	Speed of the chorus delay time modulation
Spread	Difference in speed between the left and right hand channels
LP Filter	Low Pass Filter frequency
HP Filter	High Pass Filter frequency
Widen	Stereo widening amount

Tape Chorus

Tape Chorus emulates the characteristics of a chorus created by an analogue tape delay.

Length	Length of the chorus
Width	Maximum change or modulation to chorus length
Speed	Speed of the chorus delay time modulation
Spread	Difference in speed between the left and right hand channels
LP Filter	Low Pass Filter frequency
HP Filter	High Pass Filter frequency
Widen Stereo	Stereo widening amount

Chorus/Delay

This is a combined chorus / delay. Specially developed in case you want to use another effect in combination with Chorus without losing a delay function.

Length	Maximum length of the chorus in milliseconds.
Width	The amount how much the chorus length will change
Speed	The rate the chorus length changes
Spread	The amount the chorus length differs between left and right channels.
Delay	Length of the chorus delay. Delay is behind the chorus.
Feedback	Amount the chorus delay feeds back into the sound
Delay Vol	Volume of the delay.

Flanger

The flanger effect is a very short delay which changes overtime, to make a whooshing type sound.

Length	Length of the flanger
Width	Maximum change to flanger length
Speed	Speed the flanger length changes, this is midi tempo based

Feedback	Feedback of the flanger
Pan Mod	Flanger panning amount
LP Filter	Low pass filter frequency
HP Filter	High pass filter frequency

Phaser

A phaser is a combination of filters that can create a phasing effect

Stages	Number of stages in the phaser
Pitch	Pitch of the phaser
Feedback	Feedback of the phaser
Width	Maximum change to phaser pitch
Speed	Speed the phaser length changes, this is midi tempo based
Spread	Amount the phaser stages are spread from the central pitch
Pan Mode	Speed the phaser pans from the left / right hand channels

Wah/Delay

This effect produces a wahwah type effect by running the sound through a lowpass-filter that's frequency is changed over time. There is a built in delay which adds delays to the sound.

Low Range	Lowest Frequency of the filter. Here you can adjust how deep the LP filter ranges. The more you move the dial to the left, the lower the filter goes.
High Range	Highest Frequency of the filter. Here you can adjust how high the LP filter goes. The more you move the dial to the right, the higher the filter goes.
Speed	The rate the filter frequency changes over time. Tempo based.
Resonance	Controls the resonance of the used low-pass filter.
Delay	Length of the wahwah delay. This delay is after the WahWah FX.
Feedback	Amount the wahwah delay feeds back into the sound
Delay Vol	Volume of the delay

Distort (distortion)

This distorts the audio by saturating, limiting, rectifying and bandpass filtering the input.

Limit	Hard limiter threshold
Rect	Amount of rectification, from -100% (no change) , 0% half to 100% - full
Distort	Amount of Distortion
Tone	Frequency of the band pass filter
Emphasis	Bandwidth of the band pass filter
Post-Boost	Amount the filter signal is boosted
M-Wheel > Tone	Amount the band pass filter frequency is changed by the modulation wheel

Clipper Distortion

This distorts the audio clipping the tops and troughs of the input signal waveform.

Drive	Pre-boost amount
Limit	Sets the signal level above which the clipping comes into effect
Symmetry	Sets the balance between the clipping of the negative and positive parts of the waveform signal
Tone	High pass filter to set the tonal character of the distortion
LP	Low Pass Filter
HP	High Pass Filter
Post-Boost	Boosts the signal post-clipping

Low-Fi

This effect reduces the digital audio quality of the sound, which results in old style computer sound effects.

Bits	Bit level of the signal.
Sample Rate	Sample rate of the signal.
LP Filter	Frequency of the low pass filter.
M-Wheel > Filter	Amount the low pass filter frequency is changed by the modulation wheel.

Amp Sim

Several types of amp types are simulated. Great for creating edgy sounds.

Type	Type of amp simulation. Settings are:- None, 4x10" guitar speakers, 4x12" guitar speakers, Bass speaker, Combo speaker and Radio speaker. The "none" speaker setting is useful if you want to only use the distortion in the FX effect.
Distort	Amount of distortion added to the sound. Also works if the "none" speaker setting is selected.
Bass	Bass EQ Volume. Adds or removes low end from the speaker simulator.
Treble	Treble EQ Volume. Adds or removes high frequencies from the speaker simulator.
Volume	Volume boost. Adjusts the volume of the processed sound.

Note: with the Amp simulator FX it is recommended to fully open the Mix control knob (wet).

WaveShaper

The waveshaper effect shapes the in-going sound to a kind of distorted version of it. It is then passed through a low pass filter that's frequency is changed over time by a tempo based LFO.

Top Amt	The amount positive input is waveshaped.
Bottom Amt	The amount negative input is waveshaped.

Rect	The amount the sound is rectified, at -100% the sound goes through as normal, at 0% no negative output is heard and at 100% any negative output is made positive.
Filter	Low pass filter frequency. This filter does not filter the high frequencies.
LFO Amount	The amount the low pass filter frequency can change.
LFO Speed	The rate the low pass filter frequency can change.

Stereo Widener

This effect widens the stereo sound.

Widen	Stereo widening amount
Width	Maximum change to the stereo widening amount
Speed	Speed that the stereo widening amount changes.
LP Filter	Low pass filter frequency.
HP Filter	High pass filter frequency.

AutoPan

Autopan pans the sound between the left and right speakers.

Amount	Amount the autopan moves the sound in the stereo field.
Speed	The rate at which the autopan moves the sound. This is Tempo based so for example 1/1 does mean that the pan moves from left to right within 1bar.

Note: for maximal effect you also need to open the Fx Mix control knob fully right (wet)

Gator

The gator uses a 16 step sequencer to alter the volume of the sound to give a 'trancegate' type effect. Basically it is a sequencer controlled audio gate.

Speed	The speed of the gator. Speed is time based from 16/1 up to 1/32T speed. If for example the speed is set to 1/1 each step is 1/16 note. If for example the speed is set to 2/1 then each step is 1/8 of a note.
Smooth	How much the volume changes are smoothed out. This helps to avoid clicks.
Mode	Whether the gator affects the left & right channels, the left channel only or the right channel only or both.
Sync	Turns on / off the host syncing. For example if you do not hear the gator FX in standalone host, then switch to off. Inside a host sequencer program the best setting is auto or sync. The default setting in most presets is auto. So if you have problems with these settings, try off.
Left	Left channel sequencer. Clicking here turns on / off that step in the gator. When a step is on (light colour) the gate is open and you can hear the audio. When a step is off (dark colour) the audio is muted.

Right	Right channel sequencer. Clicking here turns on / off that step in the gator. When a step is on (light colour) the gate is open and you can hear the audio. When a step is off (dark colour) the audio is muted.

Note: FX Mix sets how much of the Gator FX is added. With the Gator FX it is wise to fully open the Mix control knob (wet).

Vocoder

Predator features a 32 band vocoder. The vocoder can use either samples or sound (input) that is fed into Predator. The vocoder fx means that the sound of the sample or input, will be altered by the sound of Predator and the vocoder fx. So for example if you use a speech (sample or input) it can create a classic robot "vocoder'" effect. The base sound of a vocoder is the "carrier". This can be Predator's synth sound, but also the input itself.
If you use the Predator synth as "carrier" you can produce a polyphonic vocoder sound. For instance you can take a drum loop and play this vocoder-wise in a polyphonic way, and the drum loops will alter Predator's output. Listen to preset "voco-drummer" in the first preset bank. There are more vocoder example presets included that show how to use the vocoder. Keep in mind that if you change the sound of the "carrier" (which can be Predator's own synth sound), that the vocoder sound overall will change too. The modulator is the sample or input. So this audio signal is used by the vocoder to alter Predator's output.

How to use it.

Inside Predator: You can use the Vocoder inside Predator with a sample as a source or an audio input if the audio host allows you. The most common use has Predator's output as the "carrier" for example the preset "voco-drummer" allows you to play polyphonic vocoder sounds.
Inside PredatorFX: You can use the Vocoder inside PredatorFX as well. Firstly you select PredatorFX as an "insert" effect in your host mixer. This allows the vocoder to receive an input from the host.
PredatorFX needs to be in >FX mode, this means that the synth part of PredatorFX works as normal and can be used as the carrier. You can use the vocoder in two ways in PredatorFX, either you can set it so the left channel vocodes the right channel, or the synth part of PredatorFX is vocoded by the audio input. In order to get the synth part of PredatorFX to work you need to be able to trigger PredatorFX oscillator's using midi. So for instance in Cubase SX you need to set up a midi track that is output as PredatorFX.
Note: you can only use the Vocoder in one FX slot, if you try to use two Vocoder slots , it will cause the sound to be distorted.
The vocoder has several controls, these being the upper dials and the lower buttons.

Samples

Clicking the long sample button allows you to load in a sample to use as the modulator in the Vocoder. You can use either wav or aiff samples at 8/16/24 bits, mono or stereo wav and at any of the most common sample rates. The sample can be up to 3,000,000 sample points long (more than a minute at 44.1Khz sample rate). You can either load in samples that are stored in the Predator Sample directory (or sub-directories under it) or stored anywhere else on your hard disk. After you have loaded a sample, its name is shown here (with a * at the end if the sample is not in the sample directory).
If you use samples in the Predator Sample directory, and you move onto another computer make sure the same sample is stored in the Predator Sample directory on the new machine, then the vocoder will work. This is because for samples stored in Predator sample directory ,

the relative path is stored, so presets should work on any machine with the right samples. You can use samples stored in other places, but on different machines these presets may not work unless the same sample is stored in exactly the sample place.
Near the sample load box are several buttons to alter the properties of the Vocoder:

Sample / Input

This selects if the vocoder uses a sample or the sound (input) going into the vocoder. In PredatorFX , this button is changed to LR / Synth , this means you can either have it so that PredatorFX uses the L channel signal as modulator and R channel signal as carrier , or it can use the input signal (in mono) as the modulator and PredatorFX synth output as the carrier.

Car Mod / Mod Car

This selects whether the sound in (sample or input) is the modulator or the carrier in the Vocoder. For most purposes you want it set so that the sound in is the modulator i.e. Car Mod, but you can experiment with the other settings, here the sound of Predator modulates the input (the sample or input)

One Hit / Looping

This controls whether the sample plays only once when you press a key (One Hit) or loops continuously (Looping)

Reset Off / On

This controls whether the sample resets, if you have a key pressed and you then press another one. The sample always starts from its start position, if you have no key pressed and then press one.
Next are the dials controlling the Vocoder filter properties

Mix	This controls how much the dry sample or input is mixed with the Vocoder output
BandWidth	Controls the width of the vocoder's filters, smaller settings give a sort of ringing comb filter's sound, larger ones a more traditional vocoder sound
Shift	This controls how much the vocoder output is pitch shifted, from -36 semitones to +36 semitones
LP Filter	Built in lowpass filter
HP Filter	Built in highpass filter
Boost	Overall volume of the vocoder , from -40db to 0db
In Volume	The volume of the input into the vocoder (either from a sample or via direct input into Predator)
Smpl Tune	Tuning of the sample used by the vocoder, it ranges from -12 semitones to +12 semitones. Very useful if you have a drumloop and you want to adjust its tempo.

FX Filter

This is a analogue modelled stereo Multimode Filter, which has all the properties of Predator's main filter.

Type	Sets the type of filter, offering 6dB LowPass and HighPass, 12dB, 18dB and 24dB LowPass, HighPass , 12dB and 24dB BandPass, 12dB and 24dB Notch and Comb Filter modes.
Frequency	Sets the Cutoff frequency of the filter
Q	Sets the Resonance level of the filter
Distort	Sets the pre-filter distortion of the filter
Smooth	Sets the pre-filter distortion as smooth or edgy in sound.

Equalizer

The equalizer uses 5 bands at 60Hz, 200Hz, 600Hz, 2000Hz and 8000Hz frequencies. The control knob for each band controls that bands volume, from -20db to +20db When using the equalizer, it is recommended that you a fully wet signal.

Compressor

The compressor is an audio effect that changes the dynamic range and response of a signal.

Threshold	This sets the threshold on which the compressor starts to work
Ratio	This sets the amount of dB reduction. So if a signal exceeds the threshold the 4dB gets 2dB with a ratio setting of 1:2.
Attack	This sets how fast the compressor kicks in.
Release	This sets how long the compressor takes to react to a reduction in volume
Volume	This allows you to correct the volume after the signal has been compressed.

Note: FX Mix sets how much of the Compressor FX is added. With the Compressor FX it is wise to fully open the Mix control knob (wet).

Ensemble

This effect uses 6 choruses, each having its own setting, to give the effect of several copies of the sound playing at once.

Length	Length of the ensemble effect
Width	Maximum change to ensemble length
Speed	Speed the ensemble length changes
Feedback	Amount the choruses differ from each other
Spread	Spread

Cabinet

Several types of cabinets are simulated. Great for creating edgy sounds.

Type	Type of cabint simulation. Settings are: None, Fender, Marshall and Off Axis. The none speaker setting is useful if you want to only use the distortion in the FX effect..
Distort	Amount of distortion added to the sound. Also works if the "none" cabinet setting is selected.

Bass	Bass EQ Volume. Adds or removes low end from the speaker simulator.
Treble	Treble EQ Volume. Adds or removes high frequencies from the speaker simulator.
Volume	Volume boost. Adjusts the volume of the processed sound.

Note: with the Amp simulator FX it is recommended to fully open the Mix control knob (wet).

Multi Distort

Allows you to use several different types of distortion effects

Type	Different type of distortion allowed, they are None, Atan, Cos, Cross, Foldover, Fuzz, Limiter, Overdrive, Power, Rectifier, Saturator, Square. None means no distortion is used
Pre-Boost	How much the signal is boosted before going into the distortion
Amount 1	Control how much the signal is distorted
Amount 2	Additional distortion parameter for Fuzz
Normalize	How much the output volume is normalized to the input volume, at 100% the output volume should be the same as the input volume.
Low Filter	Post distortion low-pass filter
High Filter	Post distortion high-pass filter
Post-Boost	How much the output of the distortion is boosted

Auto Wah

Autowah uses a low/bandpass filter to filter the signal using the volume of signal to alter the frequency of the filter.

Type	Type of auto-wah filter, lowpass or bandpass
Low Frequency	Lowest frequency of auto-wah filter
High Frequency	Highest frequency of auto-wah filter
Amount	How much the volume of the signal alters the filter's frequency
Q	Resonance / Bandwidth of autowah filter
Smooth	How much signal volume is smoothed

Tape Delay

Tape Delay emulates the characteristics of an echo effect created by an analogue tape delay. It is based on the code of the full RP-Delay plug-in.

L delay	Sets the delay time for the left channel
R delay	Sets the delay time for the right channel
Feedback	Determines how much of the delayed signal gets fed back to the delay input
Cross Feed	Determines how much of the left delayed signal gets fed back to the right delay input and vice versa.
Low Pass filter	Sets the frequency of the low pass filter. Simulates an aging tape that loses high frequencies.

High Pass filter	Sets the frequency of the high pass filter. Simulates the limited bandwidth and reduced dynamics of repeated echoes
Mod Amount	Use this control to adjust the wow and flutter of the simulated tape.

Tape Flanger

Tape Flanger emulates the characteristics of the classic flanger effect that was produced but miniscule delays between two simultaneously running tape recorders.

Length	Sets the delay time for the flanger effect
Width	Sets the intensity of the flanger effect
Feedback	Determines how much of the effect signal gets fed back to the input
Speed	Control to adjust the speed of the tape playback
Low Pass filter	Sets the frequency of the low pass filter. Simulates an aging tape that loses high frequencies.
High Pass filter	Sets the frequency of the high pass filter. Simulates the limited bandwidth and reduced dynamics
Pan Mod	Level of modulation to the panning of the effect signal

Analogue Phaser

The analogue phaser effect emulates the classic phasing effect built up from discrete analogue electronic components. The phaser is built out of a number comb filters that sweep back and forth through the frequency spectrum

Stages	Sets the number of stages of the phaser
Pitch	Tunes the comb filter phaser building blocks
Feedback	Determines how much of the effect signal gets fed back to the input
Width	Control to adjust the intensity of the phaser effect
Speed	Control to adjust the speed of the comb filters sweeping through the frequency bands
Spread	Sets the distance in frequenecy between the comb filters
Q	Sets the amount of emphasis of the comb filters
Pan	*P*anning of the effect signal

Fx modulation matrix

Below the FX section you can find two modulation matrix slots. Using these slots you can connect different midi or Predator synth parts to the FX parameters. There are 28 modulation sources and you can use any FX parameter as a destination. For instance you can increase the Reverb length by using the Mod.Wheel. Listen to preset "Jump Flip One" in the first bank.

Source

Here you can select the source that will modulate the Fx parameter.

Amount

Here you can set how much the modulation source will alter the Fx parameter.

Destination

Here you can select the destination FX control, all the FX parameters are shown here, though some work better using modulation than others, it's best to experiment and see the results.

Preset / Bank Manager

The manager screen allows you to see all the presets & banks at one time. Also it allows you to alter presets and banks, and search for presets within all the banks. You enter the Manager screen by clicking on the Manager button in the Preset section or clicking on the Preset Manager entry in the file menu. To return to the main screen, click on the close button.
In the Manager screen, the left hand screen shows the presets in the current bank, and the right hand screen the installed banks. At the bottom are the preset / bank controls.
In the Preset screen, the current preset is shown in red, and clicking on a preset loads it in. Clicking and moving a preset allows you to move the preset from it's current position to a new position.
Shift + clicking allows you to select a range of presets and Ctrl + clicking allows you to select unconnected presets. These multi-presets can be saved to disk via the save button / menu entry.
Alt + clicking & moving allows you to swap presets.
Right clicking brings up the preset command menu.
In the Bank Screen, the current bank is shown in red, clicking on a bank loads it in and right clicking brings up the bank command menu. Moving the scroll bar at the right moves the displayed banks.

Preset Commands

Load	Loads in a saved preset / presets
Save	Saves the current preset/presets as a fxp file.
Copy	Copies current preset
Paste	Pastes last copied preset
Swap	Swaps the current preset with another one
Move	Moves the current preset to another position
Insert	Inserts a blank preset at the current position, moving the rest of the presets forward one
Original	Returns the current preset to its original settings
Edited	Returns the current preset to its last edited settings
Default	Sets the current preset to the default settings
Delete	Deletes the current preset, move the rest of presets back one
Rename	Renames the current preset
Find	Read find section below
Help	Brings up the Manager help screen
Undo	Undo last preset command
Preview	Previews the current preset

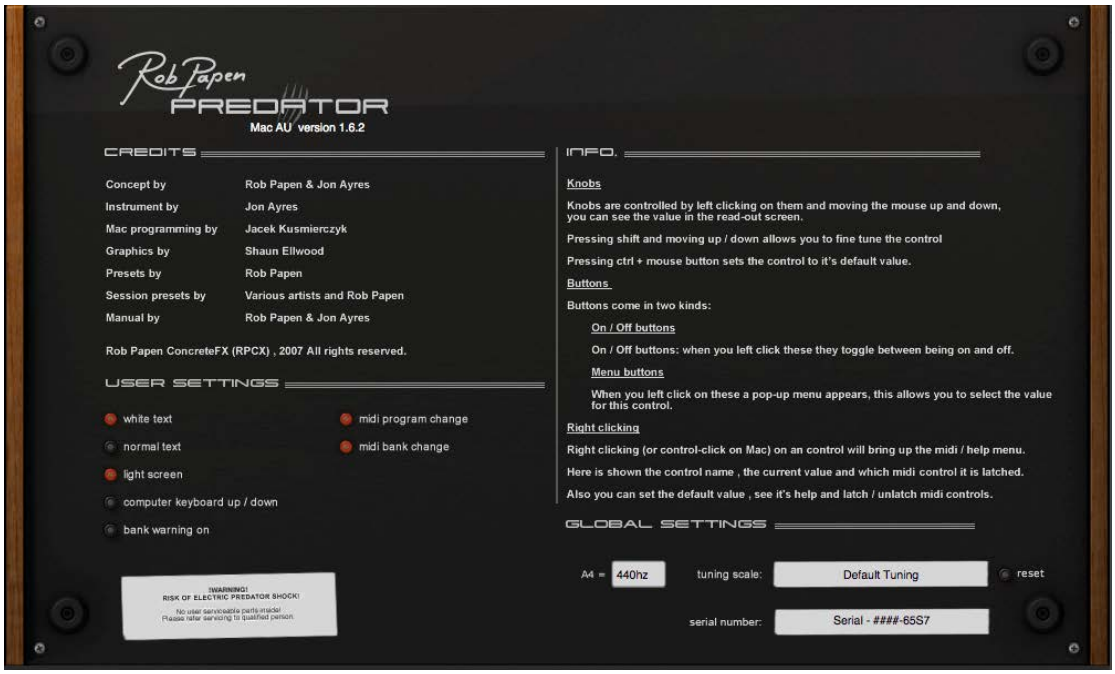
Bank Commands

Load	Loads in a bank, if the current bank has been changed from its original state, then a back up of as a ~fx file is created
Save	Save current bank
Copy	Makes a copy of current bank
New	Creates a new bank
Delete	Deletes the current bank (actually renames it as a ~fxb file so it's not shown)
Rename	Renames current bank

Find

Clicking on the find button brings up the file dialog. This searches all the banks for presets which include the searched for string. In the Preset screen, all found presets are shown in white (the others are shown in gray). In the Bank screen, all the found preset in all the banks are shown, these are shown as firstly bank name then list of presets within that bank. Clicking on a bank loads in that bank, clicking on a preset within a bank loads in that preset.

Back Panel



If you click on the Predator Logo, the back panel is shown. This is where you can read the credits and info on controls. Next to that some global settings for Predator can be found.

Computer Keyboard on/off

You can alter the current preset and banks using the computers keyboard. This setting is global and will work for all Predator instances active in your host. Below the functions that are available.

Preset Commands

Up Arrow Button	Previous preset
Down Arrow Button	Next preset
Left Arrow Button	Decrease preset number by 32, useful in the manager screen
Right Arrow Button	Increase preset number by 32, useful in the manager screen
Page Up	Previous Predator bank
Page Down	Next Predator bank
Mouse Scroll Wheels	Scrolling the mouse wheel up and down scrolls through the presets

White text

If the red text appearing inside Predator is hard to read, please do switch to "white text". This setting is global and will work for all Predator instances in your host.

Normal text

If the font type is difficult to read, you can switch to "normal text". This setting is global and will work for all Predator instances active in your host.

Light screen

If you activate this switch, it will give Predator a lighter background. For some people this will make Predator easier on the eyes.

Big screen

When this switch is turned on, the next time you use Predator it will be shown in 'Big' screen mode. The big screen mode displays Predator at 150% the size of the normal screen

Midi Preset Controls (Program Change / Bank Select)

Toggles whether or not Predator will respond to midi program change and midi bank select commands.

Tuning

You can select an alternative tuning when you click on the currently active tuning as indicated in the tuning text field. A dialog box will open that allows you to select any of the preset tunings that come installed with Predator.

Registration, Updates and Support

Registration

For registration, updates or a second activation code to install for example on a second computer, please create an account on the Rob Papen web-site and there you can obtain a 2nd activation code. To request the second activation you will need to add your Predator product to the section "Software registration". Use the Predator "activation code" which you can find on the cardboard sleeve containing the CD-ROM or the "activation code" in your registration e-mail.

Updates

For the latest version of your product please visit Rob Papen web-site and follow these steps:

- If it is your first time at www.robpapen.com, please create an account here first.
- Complete the registration form and log-in at the left-side of the homepage.
- Select "Your Details" and you will be taken to the software registration page.
- Select the product and version number you wish to register from the drop down menus. Then enter your serial / activation code and click the floppy disc icon on the right hand side to add your product to the list.
- Your product will now be listed and you simply click the download link in the right hand column to get the latest version.

NOTE: do not forget to join the newsletters about your products.

Support

If you have any questions regarding the installation or use of Predator please look at the FAQ or contact our support team at www.robpapen.com.
An account at the Rob Papen web-site is needed to request support. Before requesting support it is wise to register all your products.