ISON

TRAKKER

User's Manual

Oscope™ HOME

Oscope™ PROJECT

Oscope™ PROFESSIONAL

I S O N trakker EQ for the Scope Fusion Platform

Version 1.02

Welcome!

EQUALISATION.

EQ is the most important and frequently used tool when working with sound. Above all else, good EQ'ing is the fundamental thing that defines a good mix.
Careful EQ'ing allows you to carve out a clear and defined tonal space for each instrument so that sounds combine without cluttering up the mix.

The De-Vice' ISON Trakker is designed from the ground up to become part of every mix you do thanks to it's sound and speed of use.
With the use of features such as Q/Gain dependency, de-cramping and selectable modes of EQ from digital style ultra accurate to analog style circuit simulations the De-Vice' EQ is no ordinary EQ plug-in.!

Even if you hate manuals, (well you've made it this far!), at least read the 'Specifications and use' section of this to get the most from ISON Trakker.

Have fun, be sure to experiment, and check out the other plug-ins available from www.deviceplug-ins.com
Best Regards
Simon Ayton
De-Vice'

Contents

ISON trakker Main Surface

click any area for info

Specifications, use & DSP management

TRAKKER was designed for a minimum screen resolution of 1040x800 @ 24/32bit colour and at least 256MB of system memory.
Loading times for a single instance of the ISON Trakker can take up to 30 seconds if your system is heavily loaded, so be patient!
The 'ISON trakker mono' plug-in included with your purchase uses roughly half the DSP of the ISON Trakker (stereo) so use it on mono sounds like vocals etc.
Controls are fully MIDI controllable, including switches. You owe it to yourself to try one of the many MDI controller options which are available from the Keyfax 'Phat-Boy' to 'Radikal's SAC-2K'.
More information about using midi controllers with De-Vice' plug-ins can be found @ http://www.deviceplug-ins.com/knobs.htm
ISON trakker control via MIDI feels like an outboard EQ to use, speeds up your workflow enormously and catapults it into a new league!

The control ranges for the ISON trakker EQ are as follows:

In all modes	Freq Range	Gain	Q/width
LF (low frequency-shown in blue)	20Hz-400Hz	+-18dB	0.5-16
LMF (low mid frequency-shown in green)	30Hz-600Hz	+-18dB	0.5-16
MF (mid frequency-shown in red)	100Hz-6000Hz	+-18dB	0.5-16
HMF (high mid frequency-shown in gold)	600Hz-20KHz	+-18dB	0.5-16
HF (high frequency-Shown in white)	2KHz-20KHz	+-18dB	0.5-16

Filters
High Pass 20Hz-1KHz in 6dB steps from 12dB-30dB
Low Pass 2Hz-20KHz in 6dB steps from 12dB-30dB

Please note!!!
The ISON Ttrakker cleverly unloads DSP power when any EQ stage is not being used so make sure you turn off unused bands to reduce the load on your Creamware DSP cards.

All attempts have been made to provide low DSP usage and maximum EQ bang for your buck. but this is no light weight EQ! An AGP video card with 32MbRAM and at least 256MB of system RAM helps performance enourmously.
The choice between knobs and faders is up to you. As with all Creamware plug-ins, the further away from the control you move the mouse once clicked, the finer the adjustment and you can use the 'Page up' and 'Page down' keyboard keys and the left and right arrow keys for coarse and fine adjustments of all controls

EQ controls

Each EQ band can boost and cut by up to 18dB

Each EQ section functions the same way but each one controls a different frequency range.

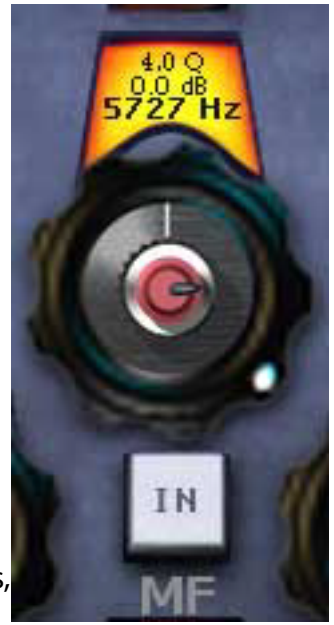
LF (low frequency-shown in blue)

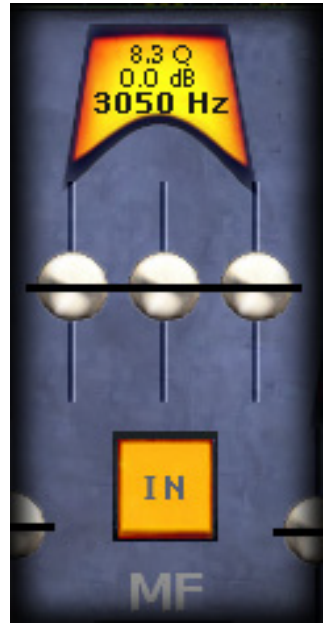
LMF (low mid frequency-shown in green)

MF (mid frequency-shown in red)

HMF (high mid frequency-shown in gold)

HF (high frequency-Shown in white)

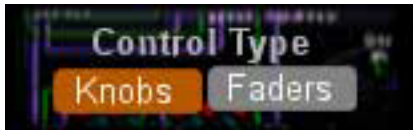




The largest outside knob controls frequency, the second knob gain and the small coloured knob bandwidth or Q.
(higher Q values indicate a tighter/narrower bandwidth)

The exact value of each knob is displayed above in the orange information display.

Values can be typed into this display for precise settings. Clicking on the knobs and dragging them will also adjust the values. The computer keyboard 'Page up-down' left and right arrows, 'home-end' and number keys will also adjust all controls.

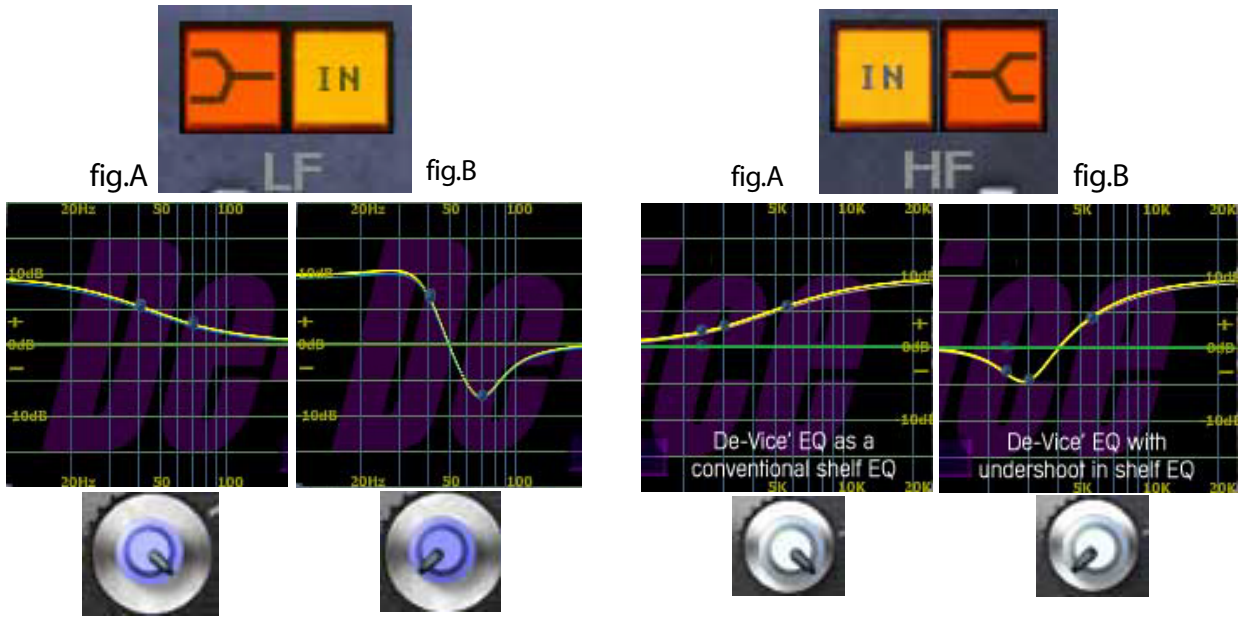


The operating motion of the knobs can be set from the setup page

The EQ section is active when the 'IN' button at the bottom is displayed.

The button to the left of the 'IN' button switches the low and high bands to shelving EQ. This alows broad changes in low and high stage EQ.

High and low shelf modes & overshoot

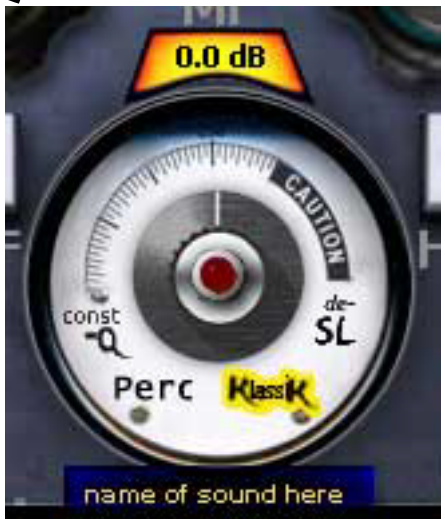


With the 'shelf-in' buttons on, the HF and LF bands become shelving meaning they boost all frequencies above the selected value.
The Q control then acts as an 'Overshoot' control which adjusts the shape and steepness of the EQ curve.

Cutting the frequencies directly below and above the area of focus helps to reduce the
'honkiness' or 'muddiness' often associated with shelving EQ and is a major part of the Trakker's sound.

(fig.A) With the Q control at it's lowest value, no overshoot occurs but as the Q is increased (fig.B) a dip occurs
in the curve. At maximum Q, the overshoot is equal to half the boost value.
The overshoot works the opposite way when cutting .

EQ Mode Switching



The central round meter contains the EQ Mode switches.
The EQ Mode modes change the way the gain and Q controls react to one another.

This interaction is what defines an EQs sound.

In an analog circuit, the Q changes with variations in the gain due to limitations in the circuit and components. This is referred to as Q/Gain dependency. Generally, as the gain is increased, the effective bandwidth of the EQ range narrows.

A digital EQ is much more accurate and because of it's capabilities, the Q does not change with gain. This is often referred to as 'Constant-Q'. This total independence of controls allows extreme accuracy but can sound harsh as the user has to constantly modify the Q as gain increases to make the EQ focus on the area being effected.

All this results in two very different sounding EQ designs.

Simply click the const-Q, de-SL, perc, Klassik names to select the EQ mode.

A full explanation of the various modes is on the next page.

EQ Modes

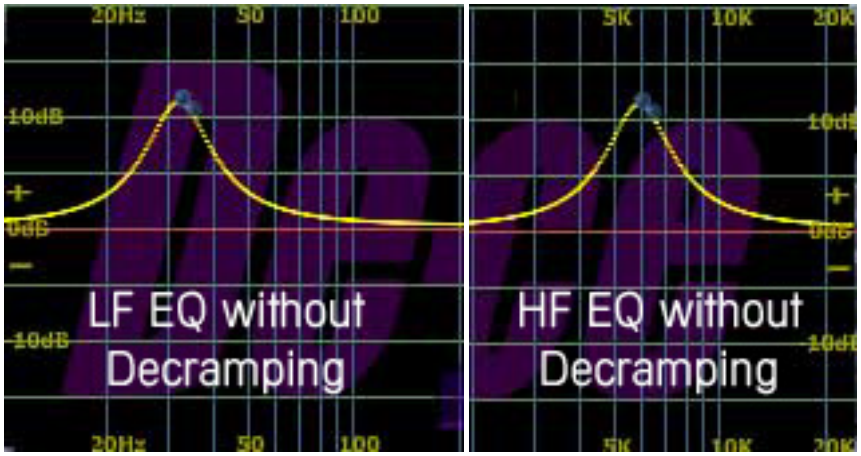
Standard digital style EQ where Q remains constant/independent when gain changes

Analog SSL console style EQ ranges with slight Q/Gain dependency in cut and boost.

Same as de-SL in boost but constant Q in cut allowing ringing drum overtones to be removed more accurately.

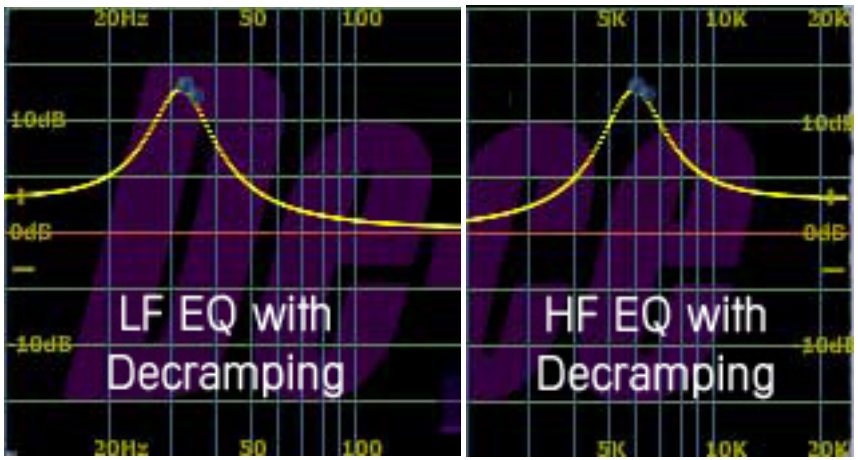
The most dramatic EQ mode with high Q/Gain dependency for a distinct character.

Decramping Effect



Normal digital EQs can sound harsh as the high and low ends are effectively squashed during EQ'ing. The Trakker tackles this by the use of decramping.

Decramping helps to add 'air' and low end presence.



The decramping feature reduces the constriction of the highest and lowest frequency areas and effectively adds 'air' and bottom end presence to the sound as in an analog EQ design.

Volume and Overload control

The ISON Trakker has a central meter with a gain control of up to 24dB

When level of 0dB is reached, the red light in the centre of the meter will light. Reduce the volume control and lick the light to reset the overload function.

The setings for the overload are adjustable from the 'setup' page.

High and Low Pass Sections

Before entering the EQ section, sound travels through the low and high pass filters allowing you to filter out or get rid of things like rumble, hiss and at the same time can reduce the *DC offset that may be present in the signal.
Each filters steepness or strength is determined by how many dB per octave it is effecting.
Pressing the small button above the section chages how many dB per octave will be cut.

The HP (High pass) filter lets frequencies above it's Hz value pass through uneffected while everything below is reduced per octave by the amount of gain selected.
The LP (Low pass) filter lets frequencies above it's Hz value pass through uneffected while everything above is reduced per octave by the amount of gain selected.

*DC offset is the term given when a signals positive and negative cycles are unequal. This can cause a clicks at the start and end of audio recordings

Central VU meter

high output warning lights up in red

Overload light & reset button

Final output control

current EQ mode

Scribble strip

The central meter contains EQ Mode switches and overload light/reset button.

The main knob in the middle controls the volume of the ISON trakker. The control has a boost of 24dB
The caution light warns you when 0dB is reached at the output.

Utility Buttons

reset all controls | main page | audition | global settings | presets | on-top | bypass | stereo/mono | close surface

Midi channel

The compare switch allows you to audition your new EQ settings compared to the currently loaded preset.
To use, first create a preset by clicking the preset button, Create a bank and save your current EQ setting. Now when you adjust any control, the compare switch will toggle to 'Edit' meaning you are now looking at the edited preset.

IMPORTANT NOTE!

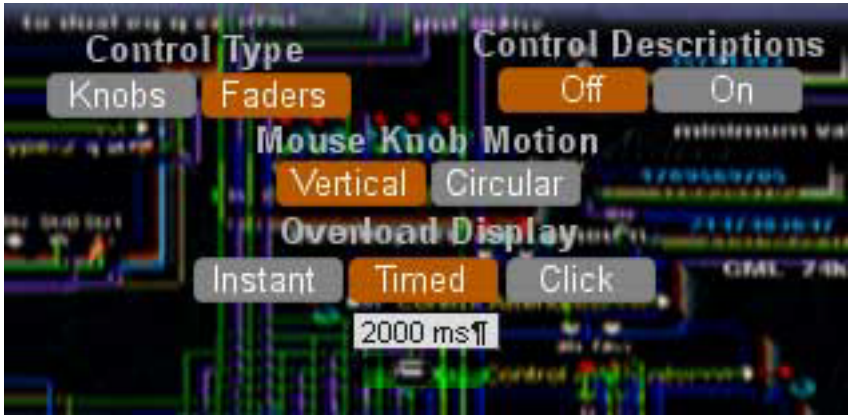
When the ISON is saved as part of a project, the compare switch must be in 'PRG' mode.
To do this, simply save your current edited preset before saving the project.

SETUP page

Here, the major functions of the plug-in can be modified.

Control Type

Don't like knobs?
Here you can exchange
all the controls for faders.



Control Descriptions

Gives you information about what the
controls do on the main surface.

Mouse Knob Motion

In vertical mode, clicking on a knob and dragging vertically makes the knob trun.
This is the recommended mode for this EQ plug-in.

Overload Display

Instant means the overload warning in the EQ display will light the instant clipping occurs.
It will then turn off once the level drops below -0.1dB.

Timed

Timed allows you to set how long in milliseconds the overload warning stays lit for.
Use the small fader below the number to adjust this. You can also type in the exact value into the box.

Click

In click mode, the overload warning will remain on until the small reset button on the PAD knob is clicked.

Boring legal stuff

De-Vice' reserves the right to
change the design and operation of all products at anytime to further enhance performance, function and efficiency.
We also reserve the right to update
product versions at our own discretion, independently of host software requirements.

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support@deviceplug-ins.com
http://www.deviceplug-ins.com