



FabFilter Pro-Q 2

User Manual



Table of Contents

Introduction

About FabFilter Pro-Q 2	3
Quick start	5

Using FabFilter Pro-Q 2

Overview	6
Knobs	8
Display and workflow	9
Band controls	11
Solo	13
Full Screen mode and resizing	14
Piano display	15
Stereo options	16
Processing mode	18
Spectrum analyzer	21
EQ Match	23
Spectrum Grab	25
Output options	26
MIDI learn	27
Undo, redo, A/B switch	29

Presets

Loading presets	30
Saving presets	31
How presets are stored	32

Purchasing FabFilter Pro-Q

Purchasing FabFilter Pro-Q	33
Entering your license key	34

Support

Support	35
Upgrading to Pro-Q 2	36
Manual installation	37
VST plug-in versions	38
External side chaining	39
License agreement	41
Acknowledgements	43
About FabFilter	44

About FabFilter Pro-Q 2

An equalizer is probably the tool you use most while mixing and mastering. That's why there are probably around 1001 EQ plug-ins available. But the strange thing is: most of them don't meet top quality standards by far! Most just lack sound quality and the ones that do sound okay, often have poorly designed interfaces that obstruct your workflow and creativity.

Now here's where we come in. FabFilter Pro-Q 2 gives you the best of both worlds: the highest possible sound quality, and a gorgeous, intelligent interface that is designed to help you get 'that' sound quickly and easily.



New in version 2

At first glance, FabFilter Pro-Q 2 looks quite similar to its predecessor. But looks are deceiving! Of course, all the goodness and intelligence of Pro-Q's interactive interface is still there, but a lot of exciting new functionality has been added to improve your sound and workflow. And even more work has been done under the hood: Pro-Q 2 features a whole new processing engine, twice as CPU efficient, with improved analog matching and our brand new, unique Natural Phase mode. Here's a list of the most important new features and improvements:

- Introducing [Natural Phase mode](#), which not only perfectly matches the magnitude response of analog EQ'ing, but also closely matches the analog phase response. It delivers the most accurate frequency response and best sound quality, even at the lowest frequencies and highest Q settings, without introducing noticeable pre-ringing or a long latency!
- Introducing [Full Screen mode](#). With just the click of a button, Pro-Q 2 instantly fills the whole screen, making super-precise adjustments easy and fast.
- Introducing [Spectrum Grab](#). Did you ever wonder how it would be if you could just grab that obvious peak in the frequency spectrum analyzer? That's possible now!
- Introducing [universal slope support for all EQ filter shapes](#). Everyone is used to having different slope options for low- and high-pass filters. But Pro-Q 2 introduces the unique option of having control over the slope of any EQ shape. So for example, you can make ultra-narrow bell filters or very steep shelves. Also, Pro-Q 2 now supports filter slopes up to 96 dB/oct, including 18 dB/oct, 30 dB/oct, 36 dB/oct and 72 dB/oct.
- [Highly improved linear-phase mode](#), now offering a better magnitude response while avoiding possible artifacts in the lower resolutions. Also, frequency, gain or Q changes in linear-phase mode will sound smooth, no zipper effects whatsoever. This might sound trivial, but it's actually quite unique in linear-phase processing!

- Introducing [new EQ shapes](#): Tilt and Band-Pass, in addition to the existing Bell, High/Low Cut, High/Low Shelf and Notch filter shapes.
- Introducing [Auto-Gain](#). When enabled, output gain is automatically adjusted to compensate for the audible gain loss or increase introduced by the active EQ bands.
- Introducing [Gain Scale](#), which can be used to scale the gain of all EQ bands (that have a gain setting, i.e. Bell and Shelf filters) between 0% and 200%.
- Introducing [Gain-Q interaction](#). When enabled, Q and gain influence each other in a pleasant way often found in analog mixing consoles.
- Introducing [EQ Match mode](#), which can be used to automatically match the frequency spectrum of another signal.
- Introducing a [piano display](#). When enabled, the frequency scale is replaced by a piano display, via which band frequencies can be adjusted/quantized by clicking and dragging.
- Introducing [phase-invert](#) option.
- Highly improved CPU optimization. Pro-Q 2 is more than twice as efficient as its predecessor!
- [Improved analog magnitude matching](#) in zero-latency mode.
- [Improved spectrum analyzer](#) with 60 dB, 90 dB and 120 dB [range](#) settings, [horizontal zooming](#), [freeze](#) and [tilt](#) options, better smoothing and more speed settings.
- Various interface enhancements, like [multiple interface sizes](#) and [optional output level metering](#), Retina support on OS X and High DPI support on Windows.

Other key features

And of course, all the goodness of the original Pro-Q is still there: highest possible sound quality, optional linear phase processing, gorgeous interface with a large display for easy and precise editing, up to 24 EQ bands, intelligent band solo mode, stereo or mid/side processing, intelligent multi-band selection and editing for maximum ease and efficiency, GPU-powered graphics acceleration, double-click text entry of parameter values, different display ranges: 3 dB and 6 dB ranges for mastering, 12 dB and 30 dB for mixing, Pro Tools hardware control surfaces support, MIDI Learn, undo/redo and A/B comparison, extensive help file with interactive help hints.

Upgrading to Pro-Q 2

Upgrading from Pro-Q version 1 to the new Pro-Q 2 is safe and easy: installing Pro-Q 2 will **not** replace or delete the previous Pro-Q 1 plug-in. Both versions will co-exist and can both be used at the same time. This ensures that you can open old songs that use Pro-Q 1 without problems! Of course, FabFilter Pro-Q 2 opens all presets from Pro-Q 1 without problems. See [Upgrading to Pro-Q 2](#) for more information.

FabFilter Pro-Q 2 is available in VST, VST3, AU (Audio Units), AAX Native and AudioSuite formats (all both 64-bit and 32-bit), as well as RTAS (32-bit only), for Mac OS X and Windows.

Windows requirements	Mac OS X requirements
32-bit: Windows 10, 8, 7, Vista or XP	OS X 10.6 or higher
64-bit: Windows 10, 8, 7 or Vista (x64)	AU or VST 2/3 host or Pro Tools
VST 2/3 host or Pro Tools	Intel processor

Next: [Quick start](#)

See Also

[Using FabFilter Pro-Q 2](#)
[Acknowledgements](#)

Quick start

The installer will copy the FabFilter Pro-Q 2 plug-in into the common VST, VST 3, AU (macOS only) and Pro Tools plug-in folders on your computer. On macOS, the global plug-in folders in /Library/Audio/Plug-Ins are used.

In most cases, your host will then recognize the plugin automatically. However, if the instructions below do not work, see [Manual installation](#) instead.

- **Cubase**

Choose an empty insert slot, for example in the Mixer, and select FabFilter Pro-Q 2 from the menu that appears. To use the MIDI features in Pro-Q 2, create a new MIDI track and set its output to the Pro-Q 2 instance you have just created. (The VST 3 version of Pro-Q 2 can be found in the EQ section.)

- **Logic Pro**

Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter Pro-Q 2 from the pop-up menu. You will find FabFilter Pro-Q 2 in the *Audio Units > FabFilter* section (named FF Pro-Q 2).

- **Ableton Live**

In Session view, select the track you would like to place FabFilter Pro-Q 2 on, for example by clicking the track name. At the left top of Ableton Live's interface, click on the Plug-in Device Browser icon (third icon from the top). From the plug-ins list, double-click FabFilter/FabFilter Pro-Q 2, or drag it onto the track.

- **Pro Tools**

Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter Pro-Q 2 from the pop-up menu in the EQ section.

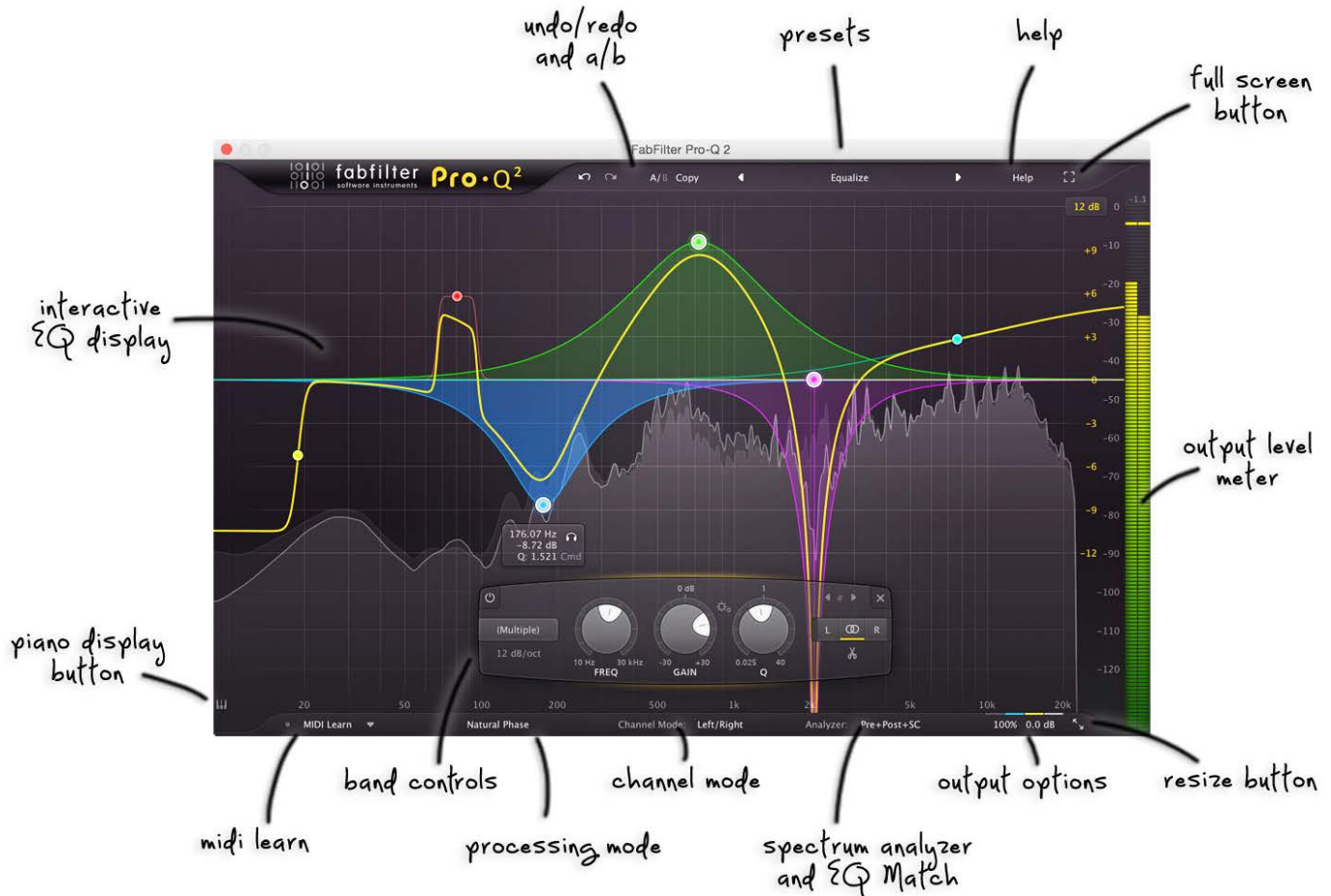
To begin, just open the plug-in and drag the yellow line in the display or double-click anywhere to create new EQ bands. Enjoy!

Next: [FabFilter Pro-Q 2 overview](#)

See Also
[Overview](#)

Overview

The interface of FabFilter Pro-Q 2 is simple and straightforward. The interactive EQ display fills the whole plug-in window, and lets you create and adjust EQ bands with the mouse. When you create or select bands, the band controls will appear, floating above the display, positioned under the selected bands. Using the band controls, you can change the settings of the currently selected EQ bands. The bottom bar offers features like processing mode (zero latency, Natural Phase or linear phase), channel mode (stereo or mid/side), spectrum analyzer settings, global bypass, phase-invert, auto-gain, gain scale and output level/panning.



- **Interactive EQ display**
The interactive EQ display shows you in a glance what's going on and lets you easily create and edit EQ bands. See [Display and workflow](#).
- **Band selection controls**
The controls below the EQ display adjust the parameters of the currently selected EQ bands in the display. See [Band controls](#).
- **Processing mode**
FabFilter Pro-Q 2 can work in zero-latency mode, Natural Phase mode or in linear-phase mode with variable processing resolution. See [Processing mode](#).
- **Channel mode**
Each EQ band either works on both stereo channels, or on a single channel. The Channel Mode button in the bottom bar toggles between left/right and mid/side processing. See [Stereo options](#).
- **Spectrum analyzer and EQ Match**
Via the Analyzer button, you can enable or disable the real-time spectrum analyzers for the pre-EQ, post-EQ and side-chain signals, and you can customize the analyzer settings. See [Spectrum Analyzer](#). Via the same settings panel, you can also access EQ Match mode, which lets you match the spectrum of a reference signal. See [EQ Match](#).
- **Output options**
On the far right of the bottom bar, you can bypass the entire plug-in, invert the output phase, enabled or disable auto-gain, show/hide the output metering, apply an overall gain scale and adjust the output level and panning. See [Output options](#).
- **Resize and Full Screen mode**
Using the Resize button at the right of the bottom bar, you can choose a desired interface size. In addition, using the Full Screen button at the right top corner, you can enter Full Screen mode, in which Pro-Q 2 fills

the whole screen. See [Full Screen mode and resizing](#).

- **Piano display**

Using the Piano Display button, you can toggle between the normal frequency scale and a piano keyboard display, via which you can easily quantize band frequencies. See [Piano display](#).

- **MIDI learn**

MIDI Learn lets you easily associate any MIDI controller with any plug-in parameter. See [MIDI Learn](#).

- **Presets, undo, A/B, help**

With the preset buttons, you can easily browse through the factory presets or save your own settings so you can re-use them in other songs. The Undo, Redo, A/B and Copy buttons at the top of the plug-in interface enable you to undo your changes and switch between different states of the plug-in. Finally, the Help menu provides access to help and version information. See [Loading presets](#) and [Undo, redo, A/B switch](#).

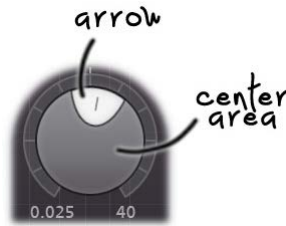
Next: [Knobs](#)

See Also

[Quick start](#)

Knobs

It is easy to control FabFilter Pro-Q 2's parameters with the large round knobs. They will light up when you move the mouse cursor around to indicate that you can adjust them. The moment you move the mouse cursor over a knob, a parameter value display will pop up, which shows the name and the current value of the parameter.



All knobs support four ways of control:

1. **Vertical mode**
Click on the center area of a knob and drag up or down to rotate it. The knob reacts to the speed with which you are dragging, so if you move the mouse slowly, you make precise adjustments.
2. **Rotate mode**
Grab the arrow of the knob and drag it around. By moving the mouse cursor further away from the knob while dragging it, you can make precise adjustments.
3. **Mouse wheel mode**
Perhaps the easiest way to make adjustments is by using the mouse wheel when you hover over a knob. This mode works for all the knobs and possible panning rings. (On Windows, you might need to click in the plug-in interface first to make sure it is the active window.)
4. **Text entry mode**
Double-click a knob to enter an exact value using the keyboard.

Tips

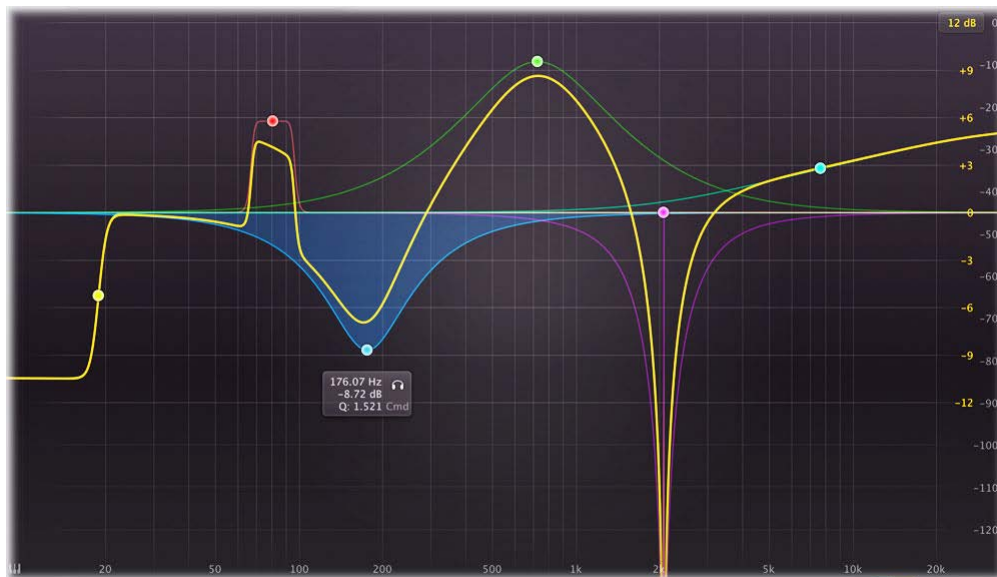
- To **reset** a knob to its default position, hold down the *Ctrl* key (Windows) or *Command* key (macOS) and click the knob once. Note: In Pro Tools, Pro-Q 2 uses the default Pro Tools keyboard shortcut for reset: *Alt*+click.
- To **fine-tune** a value when using vertical drag mode or the mouse wheel, hold down the *Shift* key while dragging or moving the mouse wheel. Note: In Pro Tools, Pro-Q 2 uses the default Pro Tools keyboard shortcut for fine tune: *Ctrl*+drag on Windows or *Command*+drag on macOS.
- There are several **handy shortcuts in text entry mode**. With frequency values, you can type e.g. '1k' to set the value to 1000 Hz, and also 'A4' for 440 Hz, or even strings like 'C#3+13'. With dB values, you can type e.g. '2x' to get +6 dB (the value that corresponds to two times louder). With all values, you can also type a percentage (e.g. '50%' will put a knob exactly in the middle position).
- Sometimes, knobs in our plug-in interfaces are **linked**: these be adjusted simultaneously by holding down the *Alt* key (*Shift* key in Pro Tools) while dragging on one of them. For example, an output level and input level setting of a plug-in could be adjusted simultaneously (in the opposite direction) this way.

Next: [Display and workflow](#)

See Also
[Overview](#)

Display and workflow

The large display shows all EQ bands and lets you easily create new bands and edit them. The thick yellow curve shows the overall frequency response of the equalizer. The EQ display looks simple and straightforward, but holds a lot of intelligence and smart features. We strongly recommend to take some time to read this topic and learn about all its options and short-cuts... it will highly improve your workflow!



Creating bands

- To add a new EQ band, simply click on the yellow overall curve and drag it up or down.
- Alternatively, double-click or Ctrl-click (Command-click on Mac OS X) on the display background.

The shape of newly created curves is determined automatically depending on where you click, and once you get used to this, it's a real time-saver! Do you need a Notch curve? Just double-click in the far low area of the display. Want a Low Cut or High Cut filter? Double-click in the far left or far right areas. Shelving filter? Drag the yellow curve at the left or right of the display.

Selecting bands

- Click the EQ band's dot or the colored area around it to select it.
- Click and drag on the display background to **select adjacent bands** by dragging a rectangle around them.
- Hold down *Ctrl* (*Command* on Mac OS X) and click another dot to **select multiple bands**. Hold down *Shift* and click a dot to **select a consecutive range** of bands.
- **Deselect** all bands by clicking anywhere on on the display background.

Adjusting and editing bands

Once you have one or more EQ bands selected, the display highlights the shapes of the selected bands. You can now of course edit the EQ settings via the floating [band controls](#), but the easiest way to adjust them is simply by dragging them around:

- Click and drag a selected dot to adjust the **frequency** and **gain** of all selected bands. If you have multiple bands selected, the gain of all selected bands will be scaled relative to each other.
- Use the mouse wheel to adjust the **Q setting** of the selected bands, making them narrower or wider. This works while dragging or when the mouse pointer is above a curve. Alternatively, hold down *Ctrl* (*Command* on Mac OS X) while dragging vertically to adjust the Q of all selected bands.
- Hold down *Shift* while dragging to **fine-tune** the settings of the selected bands.
- Hold down *Alt* while dragging to **constrain** to horizontal adjustments (frequency) or vertical adjustments (gain or Q, depending on the *Ctrl/Command* key).
- Hold down *Alt* and click the dot on an EQ band once to toggle its **bypass** state (enabling or disabling the band).
- Hold down *Ctrl+Alt* (*Command+Alt* on Mac OS X) and click the dot on an EQ band once to change its **shape**.
- Hold down *Alt+Shift* and click the dot on an EQ band once to change its **slope**.
- Double-click a dot to **enter values in the parameter value display** (using the *Tab* key to step through Frequency, Gain and Q) or double-click the values in the parameter value display directly. Note that you

can enter frequencies in various ways, like "100", "2k", "A4" or "C#2+13".

- If you right-click on the dot for an EQ band, a **pop-up menu** appears with various band settings. This is a quick way to modify the EQ band while you're working in the display.

Display range

Note that two display scales are drawn: the yellow scale corresponds to the EQ band curves and yellow overall curve. The gray scale at the far right is used by the [spectrum analyzer](#) and [output level meter](#). In the top-right corner of the display at the top of the yellow scale, there is a drop-down button to choose the **display range**: +/- 3 dB, 6 dB, 12 dB or 30 dB. When you are dragging a curve outside the current range of the display, the range will expand automatically as needed.

Horizontal zooming

Sometimes it might be useful to zoom in to a specific frequency for extra precise editing. You can easily do this by clicking and dragging the frequency scale at the bottom of the EQ display, just above the bottom bar. You can do the following:

- Click and **drag up and down** to zoom in and out at the frequency you have clicked on.
- While zoomed in, you can also **drag left and right** to move the frequency scale.
- Just **double-click** the scale to return to its default full range.

Tips

- In **Full Screen mode**, available via the button at the right top of the interface, the EQ display will fill the whole screen so you can make very precise adjustments. See [Full Screen mode and resizing](#).
- To **quantize a frequency** without using the piano display, just double-click a curve dot in the display or the Frequency knob in the EQ controls, and enter a value like "A4" or "C#2".
- It is possible to turn off the automatic adjustment of the display range by clicking **Auto-Adjust Display Range** in the Help menu.
- Even though frequencies above 20 kHz are generally inaudible, the display extends to 30 kHz so you can put filters above this limit. The left part of the filter, extending into the audible frequency spectrum, still affects the sound. This gives you even more possibilities to shape the frequency response of the equalizer just the way you need it.

Next: [Band controls](#)

See Also

[Overview](#)

[Spectrum Grab](#)

[Spectrum Analyzer](#)

Band controls

When you select EQ bands in the [interactive EQ display](#), the floating band controls will automatically appear, right under the selected bands at the bottom of the display. The band controls show the current settings of the selected EQ bands and enable you to adjust them precisely.



From left to right, the following settings are available:

- The **bypass** button at the left top lets you easily bypass the selected EQ bands. Note that you can also bypass an EQ band by *Alt*-clicking its dot in the display. While an EQ band is bypassed, it is dimmed in the display and a red light glows in the bypass button.
- The **shape** button selects the filter shape of the selected bands:
 1. Bell, the traditional parametric EQ shape and probably the most versatile of them all
 2. Low Shelf, to boost or attenuate low frequencies
 3. Low Cut, to cut all sound below the filter frequency
 4. High Shelf, to boost or attenuate high frequencies
 5. High Cut, to cut all sound above the filter frequency
 6. Notch, to cut a small section of the spectrum
 7. Band Pass, to isolate a section of the spectrum
 8. Tilt Shelf, to tilt the spectrum around a certain frequency

Note: you also change the shape of an EQ band by *Ctrl+Alt*-clicking its dot (*Command+Alt* on Mac OS X) in the display.

- The **slope** button below the shape parameter sets the steepness of the filter from 6 dB/octave to 96 dB/octave. In Pro-Q 2, the slope not only applies to the usual Low Cut and High Cut filters, but to all filter shapes! This allows you to make highly surgical adjustments if needed. So for example, you can make ultra-narrow Bell or Notch filters or very steep Shelving filters.
- The **frequency** knob sets the frequency of the selected band between 5 Hz and 30 kHz. If multiple bands are selected, they are adjusted in parallel.
- The **gain** knob sets the gain in dB of the selected bands between -30 and +30 dB. This setting is only used for Bell and Shelving filter types.
- The **Q** knob sets the bandwidth of the selected bands, widening or narrowing them. The Q cannot be adjusted when a 6 dB/octave slope is used.

Note: Because there are different interpretations of Q values in various EQ plug-ins and scientific papers, we have chosen the value 1 to correspond to the default bandwidth. For the shelf filters, the internal Q values are chosen such that they result in a good range of shelf shapes. Keep this in mind when trying to reproduce the filter shapes of another EQ plug-in in Pro-Q 2: the interpretation of the Q values might not be the same.

- Using the **Gain-Q interaction** button, between the gain and Q knobs, you can enable a subtle, analog-EQ-like gain-Q interaction. When enabled, Q and gain influence each other in a pleasant way often found in analog mixing consoles. Essentially, this means that the Q automatically gets a bit narrower when gain is increased, and the other way around, a little gain is added when the Q gets very narrow.

Note: Gain-Q interaction only affects the Bell filter shape. Pro-Q 2 remembers the last Gain-Q interaction setting that you've chosen and will use this for new instances of the plug-in.

- The **previous- and next band** buttons let you step through the current available bands in the display, in the order in which they currently appear in the display. In between, the band number of the current band is shown to help you to identify this band in the host when automating EQ parameters.

Note: When creating new bands, they will be numbered 1, 2, 3 and so on. But when you delete a band,

the others won't renumber, in order to ensure that currently written automation in your host still controls the correct band.

- The **delete** button at the right top removes the selected EQ bands. If you have accidentally deleted some bands, you can easily restore them using the [Undo](#) button at the top of the plug-in interface.
- The **L/stereo/R** buttons control which channels are affected by the selected bands. See [Stereo options](#).

Tips

- Double-click any knob to enter the value directly using the keyboard. See [Knobs](#) for more information. For the Frequency knob, you can enter values in various ways, like "100" or "2k", but also "A4" or "C#2+13".
 - To hide the band controls, simply deselect all bands by clicking on the display background.
-

Next: [Solo](#)

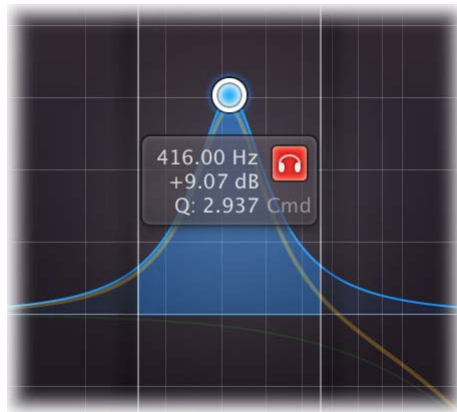
See Also

[Overview](#)

[Display and workflow](#)

Solo

When you move the mouse cursor near an EQ band in the display, a parameter value display pops up showing the current parameter values for the band.



Click and hold the **solo button** (with the headphones icon) to enter **solo** mode for the current EQ band. The other EQ bands will dim, just like the yellow overall curve. Simply **drag** the solo button horizontally to change the frequency of the band, or vertically to adjust the **solo listening level**.

In solo mode, you don't hear the effect of the EQ band itself, but instead you will hear the part of the frequency spectrum that is being affected by that band. Of course, the frequency range depends on the frequency and Q settings, and is visualized in the display as well.

When using solo mode with **Low Cut** or **High Cut** bands, you will hear the frequencies that are being cut away instead of the frequencies that pass, which helps you to determine whether you are cutting the right frequencies.

Generally, solo mode aims to expose the parts of the incoming audio that matter to the current EQ band, but that you can't hear just by listening to the regular EQ sound.

Tips

- When using solo with **Bell** or **Shelving** bands, hold down Ctrl (Cmd on Mac) while dragging to change the Q, which will of course affect the frequency range that you hear. For filter types that do not have a Gain setting (Low- and High Cut, Notch, Band Pass), dragging in solo mode has the same effect as dragging the normal, changing both Frequency and Q.
- You can adjust the **solo listening level** by moving the mouse up or down while holding the solo button.
- If the [piano display](#) is enabled, the parameter value display will also show the note number that corresponds to the band frequency.
- You can turn the parameter value display on and off by clicking **Show EQ Parameter Display** in the Help menu.

Next: [Full Screen mode and resizing](#)

See Also

[Overview](#)

[Display and workflow](#)

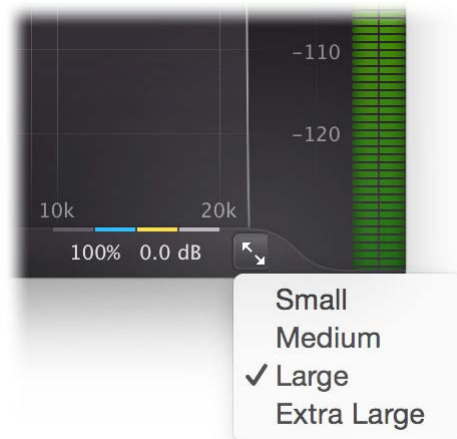
Full Screen mode and resizing

Brand new in Pro-Q 2, is the unique Full Screen mode. With just the click of a button, the Pro-Q 2 interface will fill up the whole computer screen so you can make ultra-precise adjustments and get the best view on the spectrum analyzers.

To exit Full Screen mode, just press Escape or click the Full Screen button again.

Resizing

In addition to Full Screen mode, you can also customize the normal interface size using the Resize button at the right of the bottom bar. You can choose between Small (the size of the original Pro-Q version 1), Medium (the default size), Large or Extra Large. Once you have selected a size, it will automatically become the default size for new plug-in instances.



Tips

- When using the VST3 plug-in, you can resize the plug-in interface by just dragging the window edges to any size you like. Of course you can always go back to one of the predefined sizes with the resize button.
- The Large and Extra Large interface options will be greyed out in the Resize button menu if the current display is too small to support them.

Next: [Piano display](#)

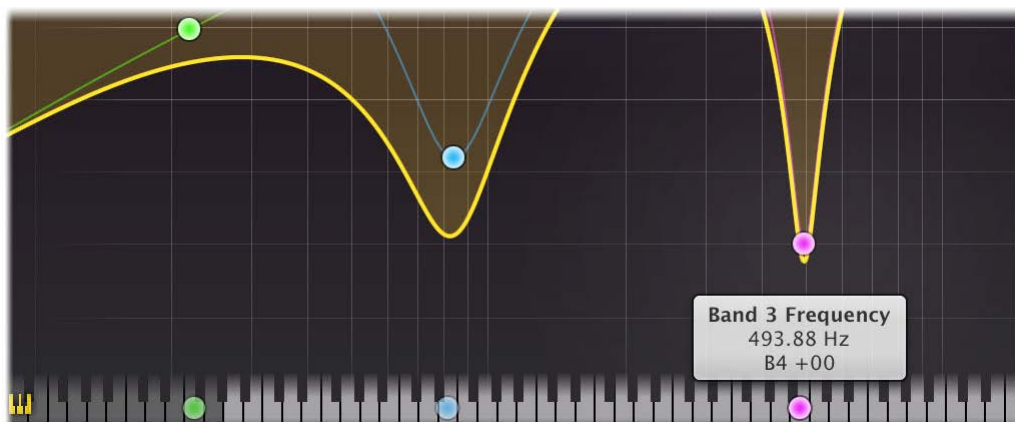
See Also

[Overview](#)

[Display and workflow](#)

Piano display

Using the Piano Display button at the bottom left of Pro-Q 2's interface, just above the bottom bar, you can toggle between the normal frequency scale and a piano keyboard display, via which band frequencies can be adjusted as well. The highlighted keys correspond to an 88-keys grand piano layout, ranging from A0 (27.5 Hz) to C8 (4186.01 Hz).



For every band in the display, there is a corresponding dot on the keyboard. You can interact with the dots in two ways:

- Click the dot once to quantize the associated band's frequency to the exact musical note.
- Click and drag the dot to change the frequency while keeping it quantized to musical notes.

While the piano display is active, parameter value displays that show a band's frequency will also show that frequency as a musical note (including cents offset). Note that at any time, also if the piano display is not showing, you can enter frequencies as musical notes! For example, you can double-click on the Frequency knob in the band selection controls and type "D#5 +13", or "A4".

Tips

- To **quantize a frequency** without using the piano display, just double-click a curve dot in the display or the Frequency knob in the EQ controls, and enter a value like "A4" or "C#2".
- By default, the piano display key that matches the frequency at the current mouse position is highlighted, and a small label shows its note number. You can turn this feature on or off by clicking **Show Frequency On Hover** in the Help menu.

Next: [Stereo options](#)

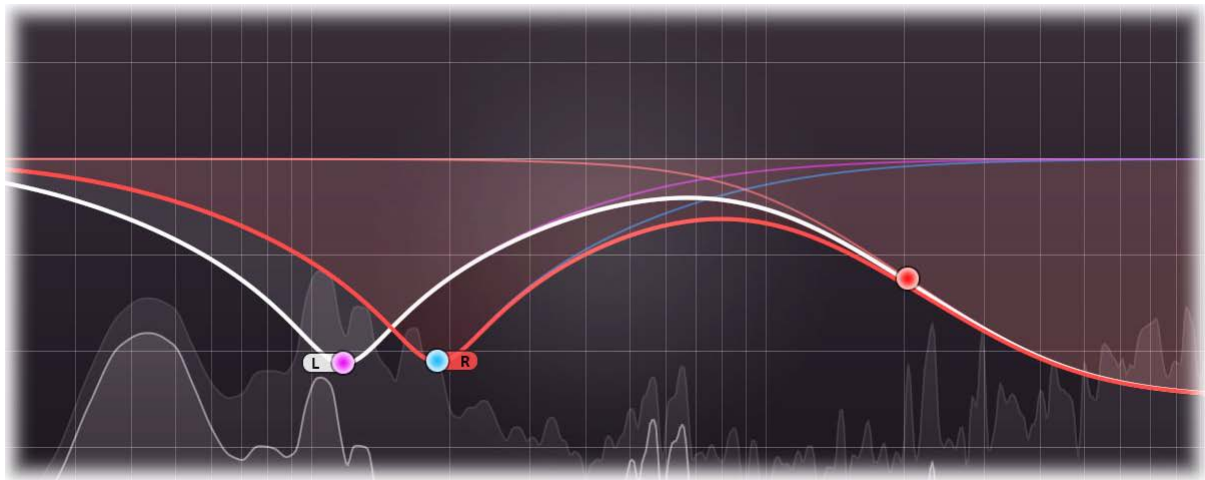
See Also

[Overview](#)

[Display and workflow](#)

Stereo options

One of FabFilter Pro-Q 2's best features is that it's very easy to equalize both stereo channels in a different way. This is a great way to surgically remove unwanted sound artefacts, or even to add stereo effects.



To make this even more powerful, Pro-Q 2 offers both Left/Right and Mid/Side channel modes. In the default Left/Right mode, each EQ band works either on both stereo channels, or on the left or right channel only. This is controlled by the stereo options at the lefthand side of the [band controls](#):

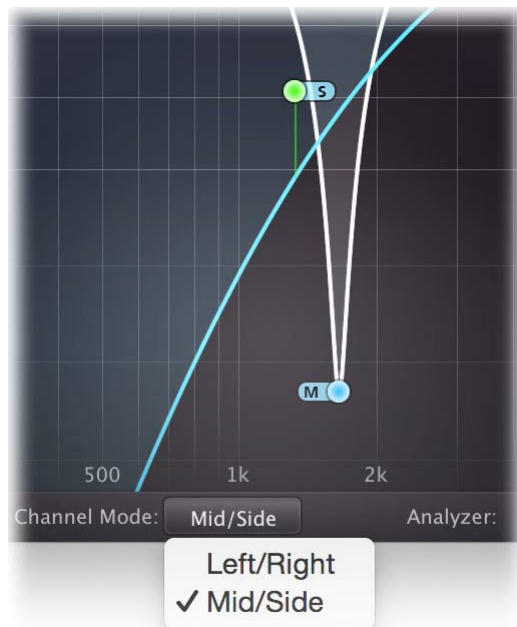


- Click the **L** or **R** button to let the selected bands affect only the left or right channel.
- Click the **stereo** button (in the middle) to let the selected bands affect both stereo channels.
- Click the **split** button underneath the buttons to duplicate the selected band, making two identical copies, one operating only on the left channel and one operating on the right channel. This makes it very easy to slightly adjust one of the channels.

As soon as one or more of the EQ bands are operating on a single channel, the EQ display switches to per-channel mode, where it shows two overall frequency response curves: a **white** one for the left channel, and a **red** one for the right channel, as shown by the picture above.

Mid/side mode

The **Channel Mode** parameter in the bottom bar switches between **Left/Right** and **Mid/Side** operation. In Mid/Side mode, the incoming stereo signal is converted into Mid (mono) and Side parts, which you can then easily filter independently. This is often an even better way to fix artefacts or modify stereo information because it represents the stereo signal in a more natural way.



In Mid/Side mode, everything works as described above, except that the stereo options above change to M/stereo/S buttons. In addition, the display shows the two overall frequency response curves in **white** (Mid) and **light blue** (Side) so you know at a glance in which mode Pro-Q 2 is currently operating.

Techniques

Independent channel equalization is very useful when dealing with stereo audio containing unbalanced frequency content over the stereo field. Let's say you want to combine a stereo drum recording with a stereo acoustic guitar recording. The drum recording contains more low-mid frequencies in the left channel (for example a low tom-tom), and more high frequencies in the right channel (like cymbals or a hi-hat). The guitar sound, recorded with a mic capturing the sound-board/hole panned left and one capturing the fretboard/neck panned right, might have similar frequencies as the drum recording, making it hard to combine them in a balanced way. By using independent left/right channel EQ-ing, it is possible to balance these elements so that they do not fight each other. Instead of EQ-ing the whole stereo track of the drums and guitars one can simply EQ where it is necessary to get the two elements to complement each other.

Mid/Side EQ is perhaps most commonly used to bring some stereo elements further up within a recording, either by cutting certain frequencies in the mid channel or by boosting the wanted frequency range in the side channel. It is great for adding a bit of depth to typical hard panned rock/heavy guitar recordings where you boost the "bite" frequency range of the guitars (around 2-4kHz) with a quite narrow eq. Combine this with cutting some of the "mud" away from the side channels will give the illusion of huge guitars that still sit well within a mix.

Independent Mid/Side equalization is also often used during mastering. For example, raising high frequencies in the Side channel can freshen up the sound, while a low-cut filter in the Mid channel can work very well to clear up the low end.

Consider using linear-phase processing when filtering both stereo channels (either in Left/Right or Mid/Side mode) differently to avoid introducing unwanted phase changes.

Mono operation

FabFilter Pro-Q 2 can also work as a mono equalizer plug-in, but in this case the stereo options and the Channel Mode parameter are not available, of course.

When loading 'stereo' presets (containing EQ bands that work on e.g. the left or right channel) in the mono version of Pro-Q 2, all EQ bands are treated as if they work on the mono channel. You should be aware that this can sometimes yield unexpected results. For example, if a stereo preset contains two bands working on the left and right channels respectively, at the same frequency, with gain = +10 dB, this will result in a +20 dB peak in the mono version. Therefore it is best not to use any presets that use per-channel processing in the mono version of Pro-Q 2.

Next: [Processing mode](#)

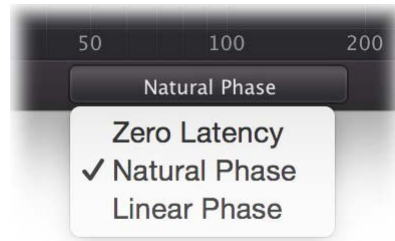
See Also

[Overview](#)

[Display and workflow](#)

Processing mode

The Processing Mode button in the bottom bar selects the type of EQ processing. In almost all cases, either Zero Latency or Natural Phase modes will deliver perfect results, and when linear-phase processing is needed, you can of course use Linear Phase mode with a customizable resolution.



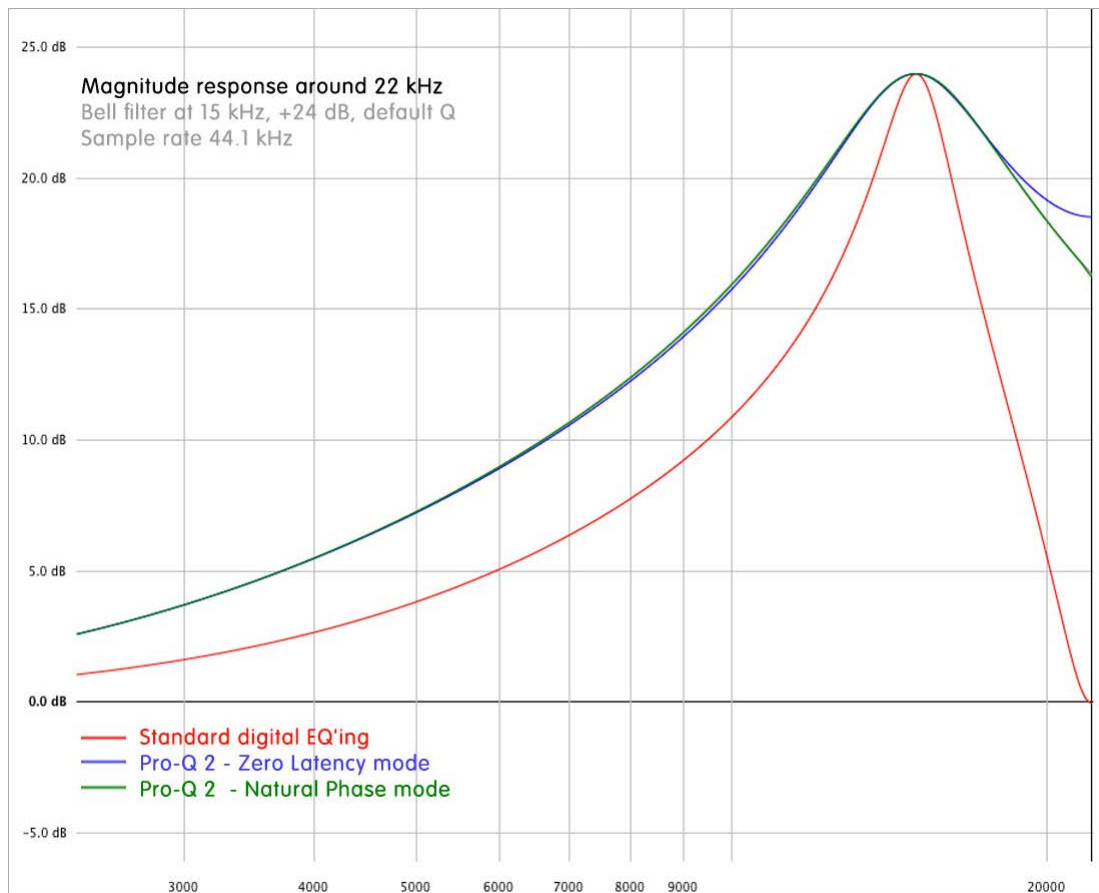
Zero Latency

In Zero Latency mode, Pro-Q 2 matches the magnitude response of analog EQ'ing as closely as possible, obviously without introducing any latency. It is Pro-Q 2's most efficient processing mode, and absolutely sufficient for most applications.

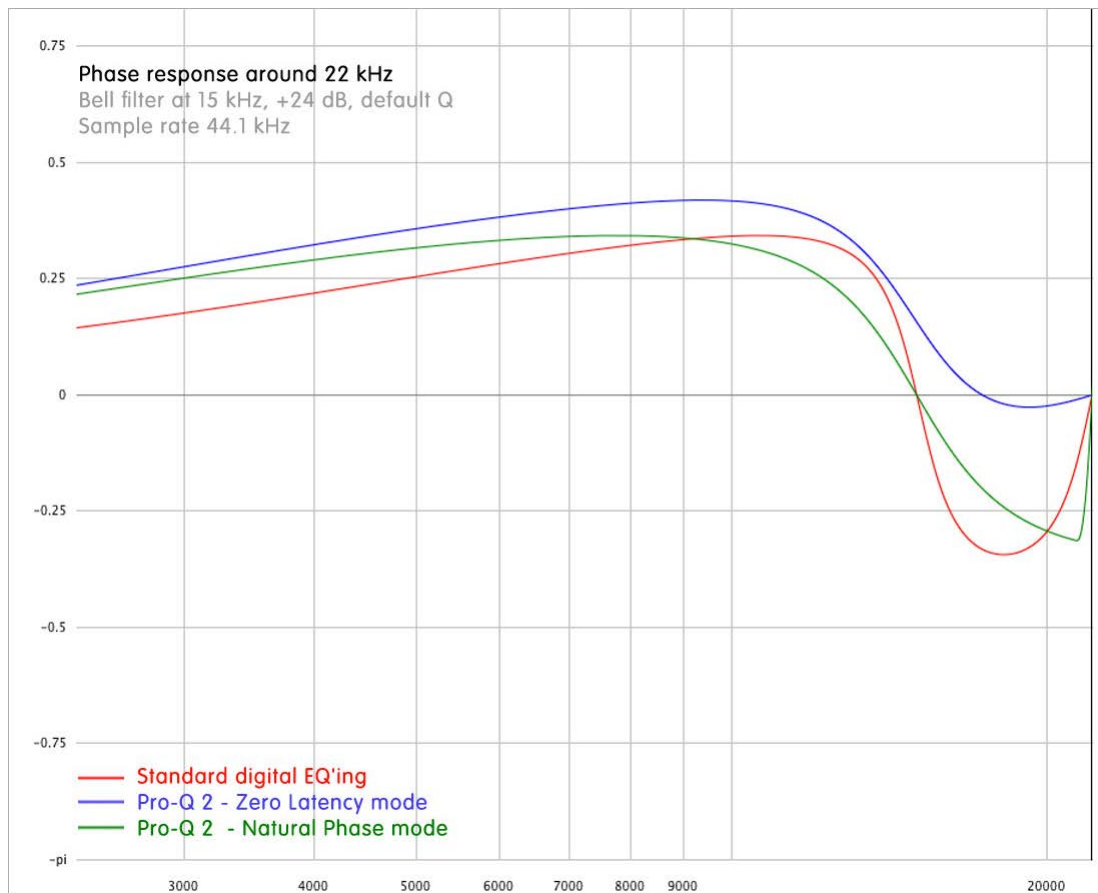
Natural Phase

Pro-Q 2's unique Natural Phase mode performs even better. It not only perfectly matches magnitude response of analog EQ'ing, but also closely matches the analog phase response. So it delivers the most accurate frequency response and best sound quality, even at the lowest frequencies and highest Q settings, without introducing noticeable pre-ring or long latency!

To illustrate the difference between the two modes, we've plotted both magnitude and phase response of a Bell filter at 15 kHz, and we've also compared this with standard digital EQ'ing, like most DAWs implement in their factory EQ plug-ins.



The red curve shows the magnitude response of standard digital EQ'ing, which really is far-from-perfect. The blue curve is the response in Pro-Q 2's Zero Latency mode, which is nearly perfect, except for a small deviation above 18 kHz. The green line shows Pro-Q 2's Natural Phase mode: it matches the theoretical analog magnitude response precisely!



And now the phase response. Again, the red curve represents standard digital EQ'ing, and blue curve Pro-Q 2's Zero Latency mode: both have a non-ideal phase response. The green line illustrates Pro-Q 2's Natural Phase mode response. Apart from a very small, inaudible deviation above 20 kHz, it perfectly matches the theoretical analog phase response.

Linear Phase

When filtering audio, traditional analog and digital filters not only change the magnitude, but introduce phase changes as well. What happens is that the phase of different frequencies in the signal is changed in different ways. This can have an audible effect on the sound, but not necessarily in a bad way. Most of the time, for example for a simple bell or shelving filter, the phase effects are very subtle and hardly noticeable. However, for higher-order filters like steep low cut or high cut filters, the effect can become quite apparent as the phase distortion starts to affect transients and can make the sound less transparent.

Moreover, problems arise when you mix a filtered and phase-altered signal with another similar signal that has not been filtered, or that has been filtered in a different way. In this case, it is very likely that the different phase components of both signals won't match up properly and will cancel each other to some extent. This situation can for example occur when mastering. It is quite common to apply an equalizer only to a part of the song, using crossfades at the beginning and end of the affected region. Because the phase information in the original and filtered parts is different, the fades won't work as intended.

Linear-phase processing provides an answer to these problems. Linear-phase filters only change the magnitude of the audio, while leaving the phase untouched. However, linear-phase filters also have some disadvantages. First of all they introduce latency: the entire signal is delayed when passing through the plug-in. Higher processing resolution (for better response in the low frequencies), results in longer latency, but unfortunately this can also introduce 'pre-ring' that can make transients (e.g. a kick drum) lose their edge.

When Linear Phase processing is selected, a Processing Resolution button becomes available. Choosing the correct resolution is a compromise depending on the program material and your personal preference. The following resolutions are available:


- **Low** provides linear-phase processing with a minimal latency. Use only with low Q settings, or when only changing the mid-high part of the spectrum. With a sample rate of 44.1 kHz, it results in a total latency of 3072 samples (about 70 ms).
- **Medium** is a good compromise between low-frequency resolution and latency and we recommend to use this in general for linear-phase processing. The total latency is 5120 samples at a sample rate of 44.1 kHz (about 116 ms).
- **High** gives great low-frequency resolution. If you need to use high Q settings when changing the low end of the spectrum, use this mode. The total latency is 9216 samples at a sample rate of 44.1 kHz (about

209 ms).

- **Very High** gives even better low-frequency resolution. The total latency is 17408 samples at a sample rate of 44.1 kHz (about 395 ms).
- **Maximum** results in very high low-frequency resolution at the expense of a very large latency and possible pre-echo problems. The total latency here is 66560 samples at a sample rate of 44.1 kHz (about 1509 ms).

Note that changing EQ band frequencies in Linear Phase mode sounds just as smooth as when using the other modes, no zipper effects whatsoever. This might sound trivial, but it's actually quite unique in linear-phase processing!

Choosing a suitable processing mode

As already explained, in almost all normal mixing and mastering situations, Zero Latency mode or Natural Phase mode (with its even better accuracy and phase response) will be the best choice. It is important to understand that linear-phase processing is not better or more transparent than normal processing, it is different! Linear-phase EQ'ing is a problem-solving tool, in general only used to avoid phase cancellation problems. To learn more about linear-phase vs. normal EQ'ing, watch Dan Worrall's excellent video tutorial on the subject: www.fabfilter.com/video/eq-linear-phase-vs-minimum-phase .

Notes

- Not all hosts are capable of switching the latency of a plug-in dynamically. Cubase and Logic Pro and Pro Tools 9 and higher do this successfully. In earlier Pro Tools HD versions it is necessary to deactivate and re-activate Pro-Q 2 after changing the processing mode, while Pro Tools LE didn't support latency compensation at all.
- When working with different sample rates, the latency in samples of the various linear-phase modes can change to give you approximately the same low-frequency resolution (and the same latency in ms).
- Due to Pro-Q 2's advanced design, the CPU usage is very low, even when using up to 24 EQ bands, and it doesn't change much with the different linear-phase processing modes.

Next: [Spectrum analyzer](#)

See Also

[Overview](#)

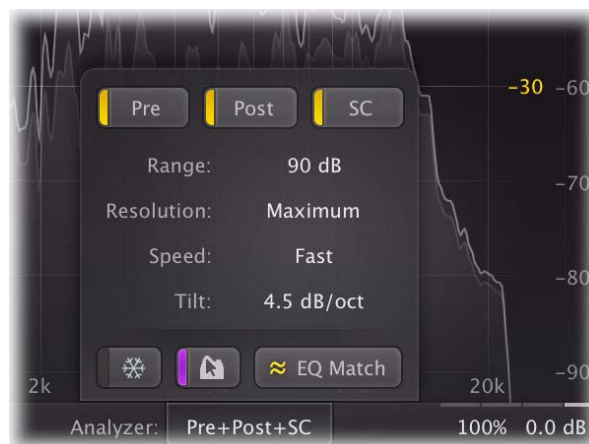
[Display and workflow](#)

Spectrum analyzer

To help you judge the effect of the combined EQ bands on the incoming audio signal, FabFilter Pro-Q includes a powerful real-time frequency analyzer.



The spectrum analyzer can be customized via the analyzer settings panel, which pops up automatically when you hover above the Analyzer button in the bottom bar. It offers the following options:

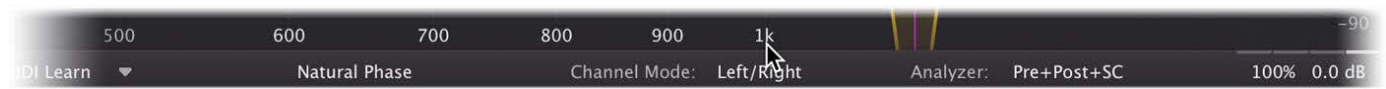


- Using the **Pre**, **Post** and **SC** buttons at the top of the analyzer settings panel, you can choose to enable/disable the pre-EQ, post-EQ and side-chain spectrum visualization. Note that when [global bypass](#) is enabled, the plug-in won't receive or handle any audio, so the spectrum analyzer is disabled as well.
- The **Range** setting specifies the vertical range of the spectrum analyzer, which can be 60 dB, 90 dB (the default setting) or 120 dB.
- The **Resolution** setting determines how precise the spectrum analyzer works. Higher resolution settings allow more precision in the low-frequency area, but because more incoming samples are needed to calculate a single spectrum, the update rate will be lower which generally results a slower attack time. The **Low** value corresponds to a resolution of 1024 points, **Medium** to 2048, **High** to 4096, and **Maximum** to 8192 points.
- The **Speed** setting selects the release speed of the spectrum. A fast release shows dynamic changes more clearly, while a slow release gives you more time to examine the spectrum before it disappears.
- The **Tilt** setting tilts the measured spectrum around 1 kHz with a specified slope, expressed in dB per octave. The default setting of 4.5 dB/oct results in a natural looking spectrum, resembling best how loudness is perceived by the human ear.
- Using the **Freeze** button at the left bottom of the panel, the spectrum will stop falling and show the maximum over time. While Freeze is enabled, a blue line at the top of the Analyzer button in the bottom bar indicates this state as well.
- Using the **Spectrum Grab** button, you can enable or disable the Spectrum Grab feature. If enabled, you

can leave the mouse above the spectrum for a few seconds, and Pro-Q 2 will automatically enter Spectrum Grab mode. Existing EQ bands will be dimmed while the spectrum freezes. You can now simply grab one of the peaks in the white output spectrum line, and drag to adjust! See [Spectrum Grab](#).

- Clicking the **EQ Match** button will invoke EQ Match mode. This is a two-step process that uses the side-chain and post-EQ spectrum analysis and adds EQ bands to match the side-chain characteristics. See [EQ Match](#).

Horizontal zooming



Sometimes it might be useful to zoom in to a specific frequency. You can easily do this by clicking and dragging the frequency scale at the bottom of the EQ display, just above the bottom bar. You can do the following:

- Click and **drag up and down** to zoom in and out at the frequency you have clicked on.
- While zoomed in, you can also **drag left and right** to move the frequency scale.
- Just **double-click** the scale to return to its default full range.

Tips

- When you hover over the display, or move the mouse slowly, the frequency under the mouse cursor is shown in the frequency scale at the bottom of the display. If the [piano display](#) is enabled, the key under the mouse cursor is highlighted. You can turn this feature on or off by clicking **Show Frequency On Hover** in the Help menu.
- When skipping through presets, the current analyzer settings are not changed, but they are saved in songs.
- Hold down the Freeze button to freeze temporarily until you release the mouse button again.
- If desired, you can make the analyzer panel 'sticky' by clicking the Analyzer button once. Click it again to hide the panel.

Next: [EQ Match](#)

See Also

[Overview](#)
[External side-chaining](#)
[Display and workflow](#)

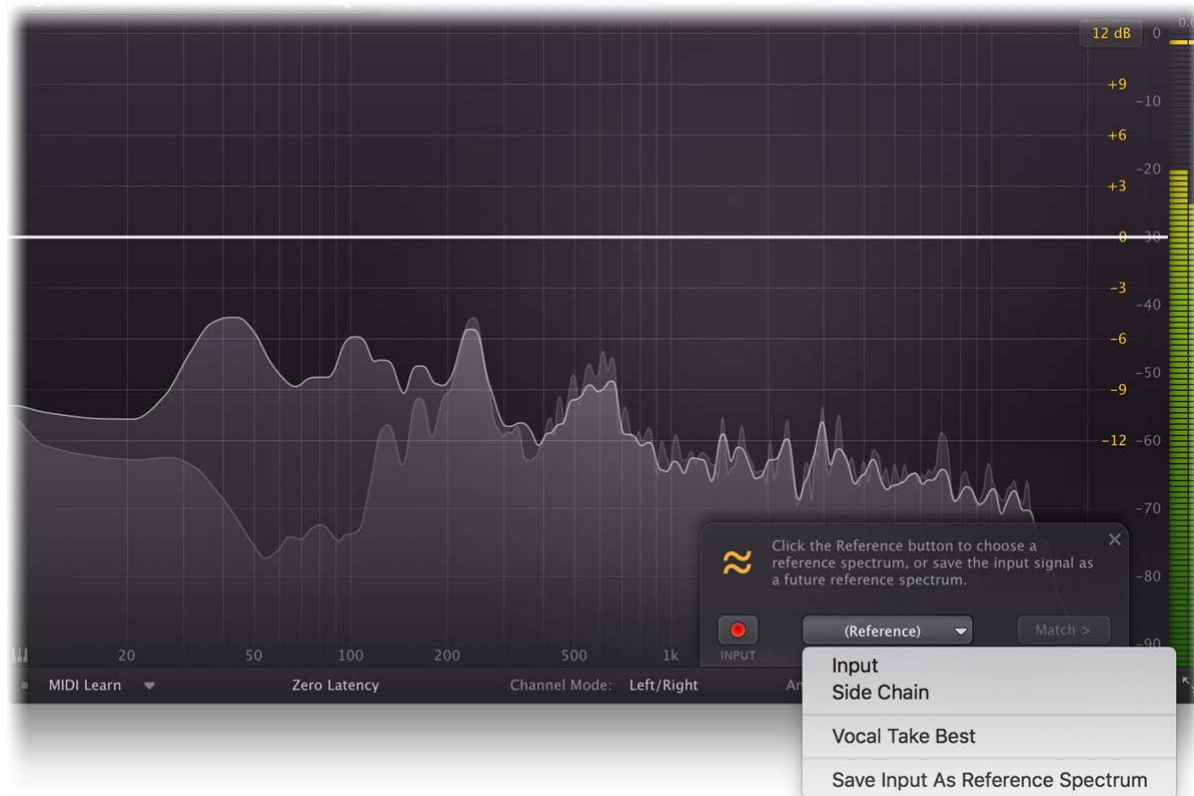
EQ Match

Sometimes, it can be very useful to be able to match the tonal characteristics of a certain reference audio signal. For example, you're in the process of recording vocals, and for some reason you just don't get them to sound like the recordings you made a few days earlier. Or you really like the overall color and sound of a certain mastered song, and want your own track to sound alike.

You can of course add EQ bands and try to find appropriate settings yourself, but Pro-Q 2 offers an automated process to do this for you: EQ Match! It's a simple process that lets you choose or record a reference spectrum, compares it to the spectrum of the current input, and adds new EQ bands to make your audio sound like the reference signal. It gets you 'that' sound in less than a minute!

Step 1: Choose your reference

Start by clicking the *EQ Match* button in the Analyzer panel, accessible via the Analyzer button in the bottom bar, which opens the EQ Match panel at the bottom of Pro-Q 2's interface. By default, EQ Match is already listening to plug-in input and starts analysis right away, building an input spectrum.



Click the Reference button to choose a reference source. You have the following options:

- **Select a previously stored Reference Spectrum**

Just choose one of your earlier saved reference spectrums and you're ready to match!

To save a spectrum, just add a FabFilter Pro-Q 2 instance to a track that contains the reference audio, open the EQ Match panel, analyze the input for a while and then choose *Save Input As Reference Spectrum* via the Reference button. Once saved, you can select it as a reference immediately in any other Pro-Q 2 instance.

- **Record a reference spectrum via the main plug-in input**

Let's say you punched in some new vocals on a track you've recorded a few days ago, and they sound slightly different. In this case, after building the current input spectrum, you can select *Input* as reference, move the playhead to an earlier point in your song that plays the previously recorded vocal, and build a reference spectrum from it. If needed, you can easily switch back and forth to building the original and reference spectrums, toggling the Record/Pause buttons.

- **Use the Side Chain as the reference**

If you choose *Side Chain*, the plug-in will listen to reference audio that you have routed to the plug-in's side-chain input, so it analyzes both original and reference spectrums at the same time. Once it has gathered enough information, the Match button will become enabled and you're ready to proceed.

When you're analyzing input or reference audio, the spectrum averages over time, so after a while (normally this doesn't take more than 30 seconds), you'll notice that the detected average spectrum isn't changing much any more. Once a valid input and reference spectrum have been analyzed or selected, you'll see a thick white line that shows the difference and the *Match* button will automatically become available.

Note: If there's no audio detected at the inputs you've chosen to analyze, either because your DAW isn't running or the side chain isn't connected properly, you will be notified about this.

Step 2: Match

After analyzing and clicking the *Match* button, Pro-Q 2 automatically calculates how many and what kind of EQ bands are needed to match the sound of the side-chain audio. EQ Match now proposes a number of new bands, and gives you the opportunity to customize the matching detail, using the slider.



By choosing more bands, even the smallest differences in the analyzed spectrums will be matched, while choosing less bands will only cover the main shape of the difference spectrum. Usually, there's no need to alter this, as EQ Match intelligently chooses the number of bands that is sufficient to match the most important characteristics of the difference spectrum.

If you're happy with the results, simply click the *Finish* button (or click anywhere outside the EQ Match panel), after which the new EQ bands are permanently added. Of course, you can also choose to return to the previous step, by clicking the *Analyze* button.

Notes

- You might see a warning that no audio is being detected for the input and/or reference, so there's nothing to analyze. This usually happens because either your DAW isn't running or because the main plug-in input or the side chain input isn't properly connected and receiving audio.
- The *Match* button will automatically become available when both a valid input and reference spectrum have been analyzed or selected. Until that time, there's not enough information to match and it will remain disabled.
- EQ Match uses the same resolution as the regular spectrum analyzer. If you need more low-frequency resolution, try setting the **Resolution** parameter in the [analyzer settings](#) to *High* or *Maximum*.

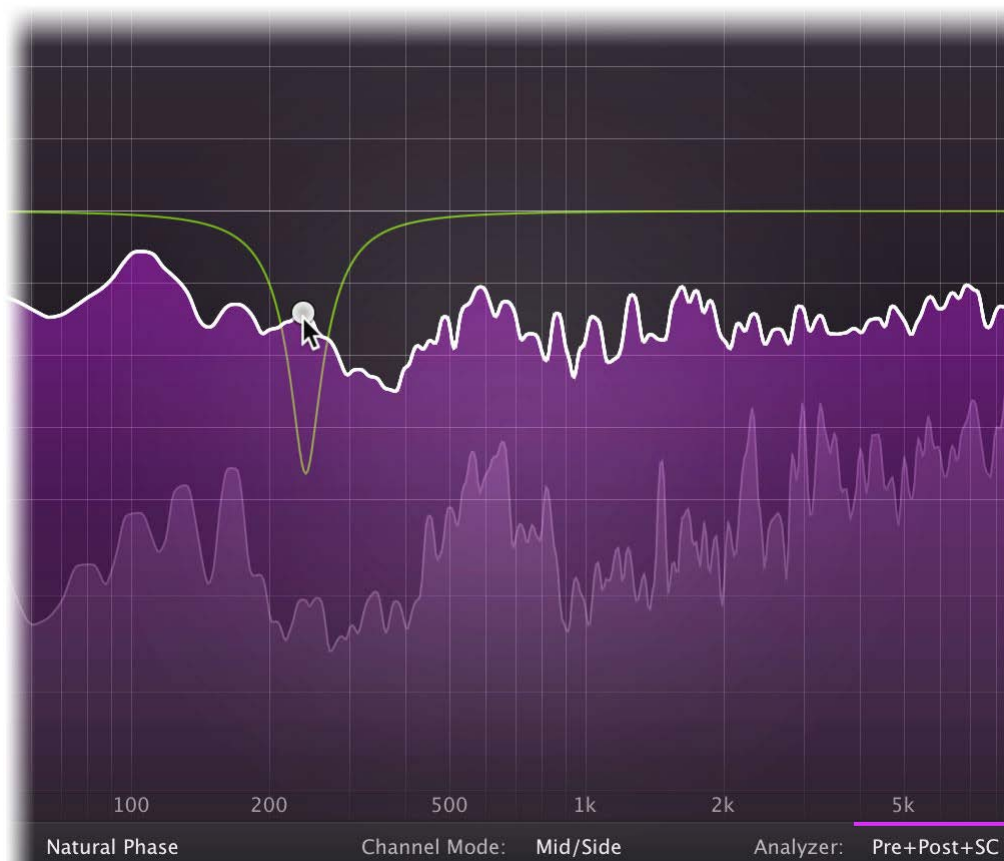
Next: [Spectrum Grab](#)

See Also

- [Overview](#)
- [External side-chaining](#)
- [Spectrum analyzer](#)
- [Display and workflow](#)

Spectrum Grab

Did you ever wonder how it would be if you could just grab that obvious peak in the frequency spectrum analyzer? That's possible now! If the [Post-EQ or Pre-EQ analyzer](#) is active, and you leave the mouse above the spectrum for a few seconds, Pro-Q 2 will automatically enter Spectrum Grab mode. Existing EQ bands will be dimmed while the spectrum freezes. You can now simply grab one of the peaks in the white output spectrum line, and drag to adjust.



After dragging a peak and releasing the mouse button, the interface will revert back to normal again and you'll see the new EQ band that has just been added, so you can customize it if needed.



By default, Spectrum Grab is enabled, but if you find it distracting, you can disable it in the [Analyzer Settings](#) panel, accessible via the bottom bar.

Notes

- You can also activate **Permanent Spectrum Grab** mode by clicking and holding in the spectrum area until the highlight becomes blue. This freezes the spectrum permanently so you can grab and drag multiple spectrum peaks. To exit this mode, simply click on the display background instead of on the white spectrum curve.
- Spectrum Grab works best when the Post-EQ setting is enabled in the [Analyzer settings](#), because this relates best to what you are actually hearing. Spectrum grab will also work with only the Pre-EQ spectrum enabled, but when you grab and adjust a peak by dragging it down, you won't see this reflected in the spectrum of course.
- In Spectrum Grab mode, only Bell filters are created, and an appropriate Q is determined automatically. Of course, after creating a new band, you can further customize it using the normal [band controls](#).

Next: [Output options](#)

See Also

[Overview](#)
[Spectrum analyzer](#)
[Display and workflow](#)

Output options

At the righthand side of the bottom bar in the interface, FabFilter Pro-Q 2 contains a set of global output options. As soon as you hover the mouse above the output button, a panel with various options and a large output/pan knob will pop up, giving you access to the following settings:



- The **Global Bypass** button lets you bypass the entire plug-in. While most hosts already provide the ability to bypass plug-ins, our internal global bypass feature is guaranteed to work correctly in [linear-phase mode](#) or [Natural Phase mode](#) (compensating for the latency of the plug-in) and also applies soft bypassing to avoid clicks. While the plug-in is bypassed, the EQ display dims, the bypass button becomes red, and a red line at the top of the output level button indicates this state as well.
- Using the **Phase Invert** toggle button, you can flip the phase of the output signal. While Phase Invert is active, the button becomes blue, and a blue line at the top of the output level button indicates this state as well.
- If **Auto Gain** is enabled, using the button with the 'A' symbol, Pro-Q 2 automatically compensates for increase or loss of gain after EQ'ing. Note that the applied make-up gain is an educated guess based on the current EQ settings, and is *not* a dynamic process based on actually measured levels. While Auto Gain is enabled, the button becomes yellow, and a yellow line at the top of the output level button indicates this state as well.
- Using the **Output Level Metering** button, you can choose to show or hide the level meter at the far right of the interface, which shows the current output level of the plug-in. Note that FabFilter Pro-Q 2 has unlimited internal headroom and will *never* clip itself: the metering indicates clipping only to warn against possible clipping during further processing of the output signal.
- Using the **Gain Scale** slider, just below the gain level/pan knobs, you can scale the effect of the gain settings of all curves by dragging horizontally. This can be very useful when you want to automate the overall effect of the EQ.

Note: This only affects the EQ shapes that actually offer a gain setting: Bell and Shelving filters. It will not affect the other filter types.

- The **Output Gain** parameter lets you adjust the output level between minus infinity and +36 dB. You can use this to correct any overall level change that the EQ bands might introduce. Note that FabFilter Pro-Q 2 features unlimited internal headroom so it won't clip internally at any level. You only need to be concerned about any clipping that might occur after the signal has left Pro-Q 2.
- The **Output Pan** parameter lets you change the relative levels of the left and right audio channels. When [Mid/Side mode](#) is active, it adjusts the relative levels of the mid and side channels instead.

Tips

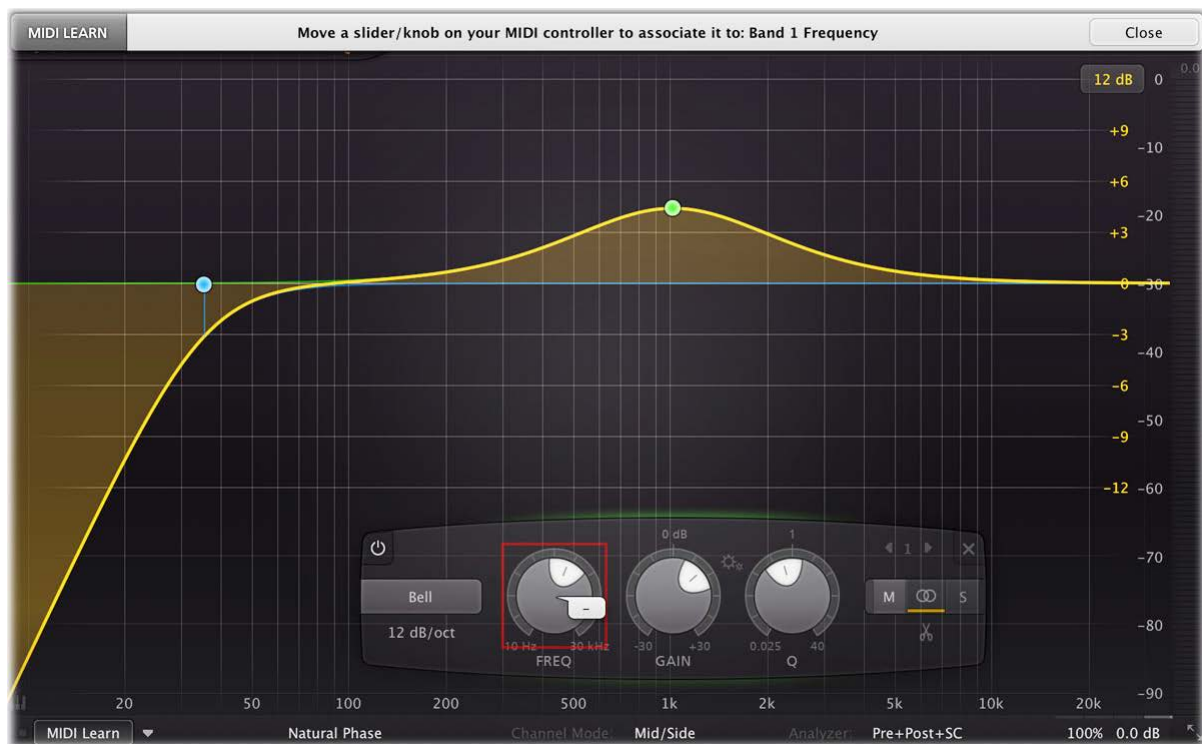
- If you would like to enable/disable Auto Gain by default for new instances, simply update the default preset by clicking **Options > Save As Default** in the presets menu.
- If desired, you can make the output options panel 'sticky' by clicking the output button once. Click it again to hide the panel.
- You can directly adjust the output gain or the gain scale by clicking and dragging the output button vertically.
- When the output knobs are visible, you can double-click them to be able to enter a value directly using the keyboard.

Next: [MIDI learn](#)

See Also
[Overview](#)

MIDI Learn

Controlling FabFilter Pro-Q 2's parameters directly with MIDI is very easy using the MIDI Learn feature. With MIDI Learn, you can associate any MIDI controller with any parameter.



Click the **MIDI Learn** button in the bottom bar to enter MIDI Learn mode. The interface dims and the parameters that can be controlled are highlighted. Each parameter has a small text balloon that displays the associated controller number. Now do the following to associate a controller number with a parameter:

1. Touch the control of the desired parameter in the interface that you wish to control. A red square will mark the chosen parameter.
2. Adjust the slider or knob on your MIDI keyboard or MIDI controller that you want to associate with that parameter.

That's it! The parameter will now be controlled with the MIDI controller. You can now go back to step 1 to associate a different parameter. Note that there is no warning when you associate a different knob with a controller number that is already used. It will just be replaced.

To exit MIDI Learn mode, click the MIDI Learn button again, or click Close at the top of the interface.

Click the small menu drop-down button next to the MIDI Learn button to access the **MIDI Learn menu**:

- **Enable MIDI**
This globally turns MIDI control of parameters on or off: useful in hosts that automatically send all MIDI events on a track to all effect plug-ins associated with that track as well.
- **Clear**
This submenu shows all parameter associations and lets you delete individual associations or clear all associations in one step.
- **Revert**
Reverts to the last saved MIDI mapping (or the state when the plug-in was started).
- **Save**
Saves the current MIDI mapping so Revert will go back to this state. The current mapping is automatically saved when closing the plug-in.

Routing MIDI to effect plug-ins

For MIDI Learn to work properly, the plug-in need to actually receive MIDI of course. Depending on your host, it can be quite difficult to route MIDI data to effect plug-ins. Here's how to do it in the most important hosts:

- **Logic Pro**
Instead of adding FabFilter Pro-Q 2 to one of the insert slots, create a new **Instrument Track**, and click on the Instrument slot. Then choose **AU MIDI-controlled Effects** > FabFilter > FF Pro-Q 2. Now, the plug-in receives MIDI. To get audio into the plug-in, click the '**Side Chain**' drop down menu in Logic's plug-in header and choose the actual input track. Next, you can mute that original track, so you only hear the audio through the plug-in. The only downside is that plug-ins with an external side-chain cannot use it anymore.

- **Cubase**

Simply create a new **MIDI track** and set its output to the Pro-Q 2 instance you would like to control via MIDI.

- **Pro Tools**

Create a new **MIDI track**. From the MIDI input drop down menu, choose your MIDI device (if not already selected) and from the MIDI output drop down menu, choose FabFilter Pro-Q 2 -> channel 1 for the instance you would like to control.

- **Ableton Live**

First of all, create a new **MIDI track**. From the 'MIDI from' drop down menu, choose your MIDI device (if not already selected). Then, in the 'MIDI to' drop down menu, choose the Audio track that has FabFilter Pro-Q 2 on it. NOTE: only the first plug-in on any track can receive MIDI!

Next: [Undo, redo, A/B switch](#)

See Also

[Overview](#)

Undo, redo, A/B switch

The Undo and Redo buttons at the top of the FabFilter Pro-Q 2 interface enable you to easily undo changes you made to the plug-in. With the A/B feature, you can quickly switch between two different states of the plug-in.



- The **Undo** button at the left will undo the last change. Every change to the plug-in (such as dragging a knob or selecting a new preset) creates a new state in the undo history. The Undo button steps back through the history to restore the previous states of the plug-in.
- The **Redo** button cancels the last undo command. It steps forward through the history until you are back at the most recent plug-in state.
- The **A/B** button switches from A to B and back. Before switching, the current state of the plug-in is saved, so if you click this button twice, you are back at the first state. The button highlights the currently selected state (A or B). In the example above, the A state is active.
- The **Copy** button copies the active state to the inactive state. This marks the current state of the plug-in and allows you to go back to it easily with the A/B button. After clicking Copy, the button disables itself to show that both states are equal, so there is nothing to copy anymore.

Notes

- If the plug-in parameters are changed without using the plug-in interface, for example with MIDI or automation, no new undo states are recorded.
- The Undo and Redo buttons will disable themselves if there is nothing to undo or redo.

Next: [Loading presets](#)

See Also
[Overview](#)

Loading presets

FabFilter Pro-Q 2 comes with a small set of basic presets, giving a good idea of what you can do.

- To load a preset, click the preset button. The presets menu will appear with all available presets. Click a menu item to load that preset. The currently selected preset is highlighted with check marks.
- To explore the presets one by one, click on the little arrow buttons to the left and right of the main preset button. This will load the previous or next preset in the menu.

The preset button shows the name of the current preset. If you have changed the preset by adjusting one or more parameters, the name is dimmed to indicate that this is not the original preset anymore.

Tips

- The **Default Setting** preset is loaded automatically when FabFilter Pro-Q 2 is started. To change the default settings, simply overwrite this preset by clicking **Options > Save As Default** in the presets menu.
- To open a preset outside the [presets folder](#), click **Options > Open Other Preset**. This might be useful if someone sends you a preset by email, for example.
- If somehow the factory presets are lost or not installed properly, click **Options > Restore Factory Presets** in the preset menu to restore them.

MIDI Program Change and Bank Select

Loading a presets can also be done via MIDI, using Bank Select and Program Change messages. Click **Options > Enable MIDI Program Changes** in the preset menu to enable or disable this feature. When enabled, the corresponding bank/program numbers are shown in front of the preset name (for example: *(2/65) My Preset*). This means that you can load that preset by first sending a Bank Select message to select bank 2 and then sending a Program Change message to select program 65.

Important: All the presets in your preset folder are numbered automatically, starting with bank 0 and program 0. This way, you are able to access any of the presets via MIDI. However, this also means that when you add new presets to the menu, bank/program numbers of other presets might change. Be aware of this when recording program changes in a session!

Working with Pro Tools control surfaces

FabFilter Pro-Q 2 supports the most important Pro Tools hardware control surfaces, such as Avid ICON D-Control and D-Command. Because you need a fixed number of bands in Pro-Q to use this effectively, we have added a *Flat 7 Bands* factory preset that can be used as your personal default preset. To set this preset as FabFilter Pro-Q's startup setting, load it once and then choose **Options > Save As Default** in the presets menu.

Next: [Saving presets](#)

See Also
[Overview](#)

Saving presets

You can easily extend the included presets with new settings to build your own library of presets for FabFilter Pro-Q 2 that you can reuse in various projects. This is also a good way to copy settings across multiple instances of FabFilter Pro-Q 2 in a session.

To save the current setting as a preset, click the preset button, and then click *Save As*. A standard Save dialog will appear. Type a name for the new preset and click *Save* to finish.

In the Save dialog, you can also rename and delete existing presets and create a new folder to store presets in. New folders will show up as new categories in the preset menu. (On macOS, this should be done with the Finder.)

See [How presets are stored](#) to determine the preset folder location and learn more about factory presets.

Next: [How presets are stored](#)

See Also

[Loading presets](#)

[Overview](#)

How presets are stored

Presets for FabFilter Pro-Q 2 are stored in separate files with the .ffp extension (for FabFilter Preset). All presets reside in subfolders in the main preset folder. The subfolders will show up as separate categories in the preset menu. You can also further divide the subfolders into categories.

You can manage the preset files just like other files on your computer. The easiest way to do this is in the Save dialog that appears if you are saving a preset. The preset menu will automatically reload itself with the changes when the dialog is closed.

Furthermore it is very easy to share your newly created presets with other users since FabFilter presets use the same file format on both Windows and macOS.

The default location of the main preset folder is *My Documents\FabFilter\Pro-Q 2* for Windows, and *~/Library/Audio/Presets/FabFilter/FabFilter Pro-Q 2* for macOS. To change this location, first copy all presets to the desired new location, and then click **Options > Change Preset Folder** in the preset menu and select the new folder.

Restoring factory presets

If you have accidentally lost the factory presets, you can easily restore them by clicking **Options > Restore Factory Presets** in the preset menu. This will install all factory presets again.

Next: [Purchasing FabFilter Pro-Q 2](#)

See Also

[Saving presets](#)

[Overview](#)

Purchasing FabFilter Pro-Q 2

Once you have downloaded and installed the evaluation copy of FabFilter Pro-Q 2, you may evaluate it during 30 days. Every time you start the plug-in, you will see the following dialog:




While there are still days left, you can click **Evaluate** to start working with the plugin. If you want to keep using FabFilter Pro-Q 2 after the evaluation period, you must buy a copy in the online FabFilter Shop by clicking the **Buy Now** button in the evaluation dialog.

- [Go to the FabFilter Shop and purchase FabFilter Pro-Q 2 now](#) 

We accept credit cards from all major companies, check payments, wire payments, and PayPal. The FabFilter Shop uses secure connections and encryption: therefore your personal information is completely safe.

Within a few minutes after you have purchased your copy, you will receive an email containing your personal license key. You use this license key to turn the evaluation copy into a fully registered version without the evaluation dialog and the 30-day trial restriction.

Note: If the evaluation period has expired but you didn't have the chance to properly evaluate the plug-in, you can request a new evaluation period by contacting us at info@fabfilter.com .

Next: [Entering your license key](#)

See Also

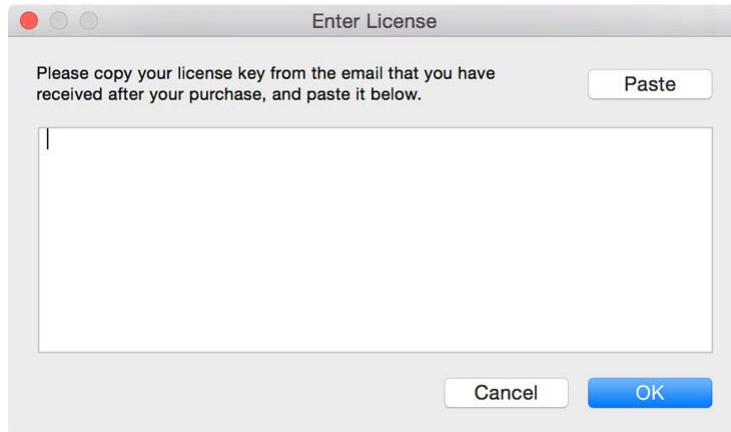
[Support](#)

[License agreement](#)

Entering your license key

After you have purchased FabFilter Pro-Q 2 in the online [FabFilter Shop](#), you will immediately receive an e-mail containing your personal license key. This license key will turn the evaluation version into a fully registered plug-in.

- Start FabFilter Pro-Q 2 and click **Enter License** in the evaluation dialog, or click Enter License on the Help menu if the plug-in is already running.
- Copy the license information from the email you have received and paste it into the text field. Make sure that you are copying the entire license key including the *Product* and *Licensee* lines! If you are not sure what text to copy, just copy and paste the whole e-mail.



After you have entered your license information, you will need to restart the plug-in host, so make sure you save your settings if needed. From now on, you will be able to use FabFilter Pro-Q 2 for an unlimited period of time with full support via email.

Tips

- After your purchase, you can always retrieve your license key again by logging into your [personal FabFilter account](#). Here you can also keep track of all your orders and take advantage of great discounts when buying other FabFilter plug-ins.
- To deauthorize your license key and remove it from the computer, click **Deauthorize** on the Help menu. If you temporarily needed to install your license on another computer, or if you have transferred your license to someone else, this is the way to deinstall your personal license key safely.

Next: [Support](#)

See Also

[Purchasing FabFilter Pro-Q 2](#)

[Support](#)

[License agreement](#)

Support


If you need help with problems or questions, and the help file does not provide an answer, please visit the support pages on our web site.

- [Go to FabFilter Support](#) 

From here, you have direct access to the customer support forum, very useful tutorial videos for all FabFilter plug-ins, online and PDF versions of all our help files, and a section with extra downloads (such as presets, controller templates, older plug-in versions).

For sales-related questions and technical support, you can also contact FabFilter directly at info@fabfilter.com.

Reporting a bug

If you have encountered a bug in FabFilter Pro-Q 2, first of all make sure that you are using the latest version of the plug-in, which you can find at www.fabfilter.com/download . You can easily check the version of FabFilter Pro-Q 2 that you are using by clicking Help > About in the plug-in interface. If the bug is still present in the latest version, please send us an e-mail at info@fabfilter.com and include as much technical information as possible: operation system and version, host software and version, steps to reproduce the bug, etc. Thanks in advance!

Next: [Upgrading to Pro-Q 2](#)

See Also

[Overview](#)

[About FabFilter](#)

Upgrading to Pro-Q 2

Upgrading from Pro-Q version 1 to the new Pro-Q 2 is safe and easy: installing Pro-Q 2 will **not** replace or delete the previous Pro-Q 1 plug-in. Both versions will co-exist and can both be used at the same time. This ensures that you can open old songs that use Pro-Q 1 without problems!

Pro-Q 1 presets

All presets created with Pro-Q 1 can be loaded in Pro-Q 2. If you upgraded from Pro-Q 1 to the new version, your original Pro-Q 1 presets will be accessible via the **V1 Preset Folder** item in the preset menu. See also [Loading presets](#).

Note: Because the processing engine in Pro-Q 2 has been renewed and improved, it's possible that a Pro-Q 1 preset loaded into Pro-Q 2 sounds slightly different!

Replacing a Pro-Q 1 instance by Pro-Q 2

If you are working on a song and want to replace a Pro-Q 1 instance with the new Pro-Q 2, we advise you to do the following:

- First, save the current setting of the Pro-Q 1 instance as a FabFilter preset in the Pro-Q 1 preset folder.
- Then, remove the Pro-Q 1 instance and add Pro-Q 2 in its place.
- Finally, load the V1 preset that you just created into Pro-Q 2 via the V1 Preset Folder submenu in the preset menu.

Automation

Because the feature set of Pro-Q 2 has changed fundamentally, any automation data that has been written by a Pro-Q 1 instance **cannot be read correctly** by Pro-Q 2.

Next: [Manual installation](#)

See Also

[Overview](#)

[Support](#)

Manual installation

When installing FabFilter Pro-Q 2, the installation program will try to copy the plug-in into the appropriate plug-ins folders, and in most cases your host will recognize FabFilter Pro-Q 2 automatically. Otherwise, please follow these instructions:

Windows

On Windows, most hosts have their own VST plug-ins folder. So if you are using Windows and your host does not recognize FabFilter Pro-Q 2, you need to locate the proper plug-ins folder for your host first (it is usually shown in the Preferences or similar dialog). Then, copy the file *FabFilter Pro-Q 2.dll* from *C:\Program Files\FabFilter\Pro-Q 2* (or *C:\Program Files (x86)\FabFilter\Pro-Q 2* if you are using a 32-bit host on 64-bit Windows) to the plug-ins folder that you have found and restart the host so it can reload all its plug-ins. For the AAX version of Pro-Q 2, copy the *FabFilter Pro-Q 2.aaxplugin* folder to the common Pro Tools AAX plug-in folder on your computer; for the RTAS version of Pro-Q 2, copy the *FabFilter Pro-Q 2.dpm* and *FabFilter Pro-Q 2.dpm.rsr* files to the Pro Tools RTAS plug-in folder on your computer.

You can simply uninstall plug-ins or bundles via the Control Panel.

macOS

On macOS, plug-ins are installed in the standard plug-in folders in the system Library folder. These are the *only* possible correct locations:

- Audio Units: */Library/Audio/Plug-Ins/Components*
- VST/VST3: */Library/Audio/Plug-Ins/VST* and */Library/Audio/Plug-Ins/VST3*
- RTAS: */Library/Application Support/Digidesign/Plug-Ins*
- AAX: */Library/Application Support/Avid/Audio/Plug-Ins*


Note: AU and VST/VST3 plug-ins may also be placed in the user's Library folders under */Users/<username>/Library/Audio/Plug-Ins*.

To uninstall the plug-ins from your Mac, you can just delete the specific FabFilter plug-in files at the above locations. Finally, if you really want to delete all data written by our plug-ins, you can remove the following folders/files from the user Library folder as well:

- */Users/<username>/Library/Audio/Presets/FabFilter/FabFilter Pro-Q 2*
- */Users/<username>/Library/Application Support/FabFilter/Pro-Q 2*
- */Users/<username>/Library/Preferences/com.fabfilter.Pro-Q.2.plist*

Note: Since OS X 10.7 (Lion), the system and user Library folders are marked as hidden by default. To make them visible again in Finder, open Terminal (found in */Applications/Utilities*) and enter the following commands:

```
chflags nohidden /Library
chflags nohidden ~/Library
```

If you still have problems, contact [FabFilter Support](#) .

Next: [VST plug-in versions](#)

See Also

[Quick start](#)
[Support](#)

VST plug-in versions

FabFilter Pro-Q 2 is available in both VST 2 and VST 3 formats. They can be installed and used both at the same time. The VST 3 format offers easy side-chaining, free interface resizing, and is more CPU-friendly in some cases, but it can only be used by hosts that support it, for example recent versions of Cubase, Studio One or FL Studio. The VST 2 format is compatible with a larger variety of hosts.

Both the VST 2 and VST 3 versions of the plug-in automatically adapt themselves to the channel layout of the track they are inserted on (mono/stereo).

For the VST 2 format, there is a separate *FabFilter Pro-Q 2 (Mono)* version of the plug-in which always runs in mono mode. This is included for backwards compatibility with existing sessions. For new sessions we recommend to use the regular plug-in which automatically adapts itself to the track it is inserted on.

Next: [External side chaining](#)

See Also

[Quick start](#)

[Manual installation](#)

External side chaining

FabFilter Pro-Q 2 offers the possibility of feeding an external signal to its side chain, so that you can visualize the signal in the Analyzer, comparing it with the pre-EQ and post-EQ spectrums. Also, you can use the SC input to let Pro-Q 2 match its spectrum, using [EQ Match](#).

Feeding a signal to a plug-in's side-chain inputs works slightly different in various hosts. This topic describes the procedure for some of the most popular hosts around: [Cubase](#), [Logic Pro](#), [Ableton Live](#) and [Pro Tools](#). To explain how it works, we use a scenario with two tracks. The first one contains the audio that we want to process with Pro-Q 2, which we'll call the *main track* from now. The second track contains the audio that we want to route to Pro-Q 2's external side-chain input. We'll call this track the *side chain track*.

After setting up everything according to the instructions below for your host, you can check whether everything is routed correctly. Play the audio and make sure the 'SC' option in the [Analyzer options](#) panel is enabled. Confirm that FabFilter Pro-Q 2 shows the side-chain spectrum now.

Cubase

- Open Cubase and create a new empty project.
- Add two audio tracks that we'll use as main track and side chain track.
- Add audio files on both the main track and the side chain track. You can simply drag audio files from a Finder/Explorer window onto a track.
- Open the Mixer. In the main track, click on an empty insert slot and select the VST 3 version of FabFilter Pro-Q 2 in the EQ menu (note the VST 3 icon which looks like ///).
- In the plug-in header, click on the Activate Side-Chain button (right of the R/W buttons) to enable the external side chain in Cubase.
- At the top of the Mixer, set the output for the side chain track to the side-chain input of FabFilter Pro-Q 2.

Logic Pro

- Open Logic Pro and create a new empty project via File > New...
- Add two audio tracks (via Track > New...) that we'll use as main track and side chain track.
- Add audio files on both the main track and the side chain track. You can simply drag audio files from a Finder/Explorer window onto a track.
- Select the main track and add Pro-Q 2 in the first Insert effect slot.
- In the right top corner of the plug-in interface header, in the 'Side Chain' menu, choose the side chain track. Now, the signal from the side chain track is sent to FabFilter Pro-Q 2's external side-chain input.



Ableton Live

- Open Ableton Live and start with an empty arrangement. We'll use Track 1 as the side chain track and Track 2 as the main track.
- From the folder menu's on at the left top of Ableton Live's interface, drag different audio clips to the first empty slots of Track 1 and Track 2.
- From the VST (or Audio Units) plug-in menu, also at the left top of Ableton Live's interface, drag FabFilter Pro-Q 2 onto Track 2, the main track.
- In Track 1 (the side chain track) in the 'Audio To' menu select 'Track 2' instead of the default 'Master'. Now, an extra menu appears right below: choose 'FF Pro-Q 2 3/4' instead of the default 'Track In' to route the track's signal to FabFilter Pro-Q 2's external side chain inputs.



Pro Tools

- Open Pro Tools and start a new empty session.
- Create two audio tracks that we'll use as main track and side chain track. Add audio files to both track.
- Open the Mix window to display the tracks with their Insert slots and Sends slots.
- In the first 'Sends' slot of the side chain track, choose 'Bus 1'. The track view for Bus 1 will open: set its level slider to 0.0 dB so the bus actually produces audio!
- In the first 'Inserts' slot of the main track, choose EQ > FabFilter Pro-Q 2.
- Now, in the 'Key Input' menu of the plug-in interface (just above the FabFilter logo), choose bus > Bus 1 instead of the default 'no key input'. Now, the audio from the side chain track is routed to Pro-Q 2's external side chain input via Bus 1.



Next: [License agreement](#)

See Also

[Quick start](#)

[Manual installation](#)

FabFilter Software License Agreement

This license agreement concerns and describes your rights and the conditions upon which you may use the FabFilter software you selected. We advise you to read this entire agreement. By accepting this agreement or by using FabFilter software, you agree to all of these terms. If you do not accept and comply with these terms, you may not use the FabFilter software or its features.

Applicability

This license agreement applies to all the FabFilter software, plug-ins and programs you may use during the Evaluation period, and/or thereafter subject to an acquired license key to certain FabFilter software of any version, including any and all upgrades, supplements or services, unless other terms come with such versions, upgrades or supplements.

Licenses

The software will be licensed to the Customer, not sold. With the FabFilter license key, you will be granted after full payment the right in perpetuity (meaning that the license agreement shall not automatically expire) to install, run and use the software concerned under certain conditions. These conditions vary subject to the license you acquired. FabFilter distinguishes the following licenses:

- A **Personal License** is a named license to the software concerned, granting access to the software on an unlimited number of Devices, as long the license is used by the designated person who acquired the FabFilter license key. Usage of the Personal license by someone else but the designated licensee is an infringement of the rights of FabFilter. The Customer should at all times protect its license key from theft and/or abuse.
- A **Site License** is a non-personal license to the FabFilter software concerned, acquired on the name of an institution or entity, who is the licensee. A Site License will grant access to the FabFilter software on a certain maximum number of designated Devices, as specified in the license key itself (e.g. "20 seats"). If the Site License is used on computers/servers for any form of automated processing, the licensee may not make any plug-in controls/parameters of the FabFilter software available to the end users of the FabFilter software, i.e. only "black box" processing is allowed.

These FabFilter licenses, whether a Personal or Site License, will give you access to certain FabFilter software of the specified major version. The license will include all future minor updates to the software (e.g. version 2.19 to version 2.20), which typically include bug fixes or small new features. The license will exclude any future new major versions of the products (e.g. version 1.x to version 2.x). To allow yourself access to such new major version of the software, a new FabFilter license to such major version must be acquired.

All FabFilter licenses, both Personal or Site License, give the Customer or end user the right to install and use the FabFilter software to the extent it has been developed and under the conditions herein. Any rights not explicitly granted to you, the Customer, remain with FabFilter, including but not limited to the right to alter, reverse engineer, reverse compile, take apart, or disassemble the FabFilter software or any of the files in the distribution.

A Bundle License is Personal or Site License for multiple FabFilter software products, which gives the Customer or end user the right to install and use the specific software products that the bundle (e.g. Total Bundle) contains at the moment of purchasing the Bundle License. Any software products or new major software versions added to the bundle after that date cannot be claimed as part of the prior acquired Bundle License. A Bundle License (if not Educational or NFR) can only be transferred as a whole, using a License Transfer.

An Upgrade License is a Personal or Site License for a new major version of FabFilter software. You may only use an Upgrade License if you have a license for the previous major version of the same FabFilter software.

Educational (EDU) and NFR licenses

A Personal or Site License can be marked as EDU (Educational) or NFR (Not For Resale), meaning the following:

- A Personal or Site License marked as Educational License is equal to the respective Personal or Site License, with the only exception that the Educational License may not be transferred to a third party.
- A Personal or Site License marked as NFR ("Not For Resale"), is typically intended for journalists that wish to review the FabFilter software. A License marked as NFR is equal to the respective Personal or Site License, with the only exception that the NFR License may not be transferred to a third party.

Duration and Evaluation

As specified in the specific terms per license, all licenses will be granted for perpetuity (meaning that the license agreement shall not automatically expire), as long as all conditions herein are respected.


The Evaluation period is a period of thirty (30) days commencing on the first day of using the software concerned and automatically expiring 30 days thereafter. After the Evaluation period has expired and no FabFilter license key has been acquired, the software will stop working and should be removed from your computer.

In addition to any and all such possibilities that FabFilter may have in accordance with the law, FabFilter may terminate without prior notice or warning in case of abuse of the FabFilter software as well as in case of (personal) bankruptcy.

Support

FabFilter shall give its reasonable commercial efforts to service any major version of any FabFilter software including email support. FabFilter is entitled to terminate support for any major version of any FabFilter software at any time at its sole discretion.

License Transfer

A Personal or Site License (not Educational or NFR) may be transferred to a third party. You will have to buy a License Transfer to activate the "transfer"-option in your [FabFilter account](#) . After this option has been activated you will be able to transfer your license to any third party.

Third Party Software

VST is a trademark of Steinberg Media Technologies GmbH. RTAS and AAX are trademarks of Avid Technology, inc. Audio Units is a trademark of Apple Computer, inc.

Applicable Law

This license agreement is governed by Dutch law. The courts of Amsterdam are authorized courts to rule on any dispute that may arise from this license agreement.

Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY LAW, FABFILTER, FREDERIK SLIJKERMAN AND FLORIS KLINKERT, AUTHORS OF THIS FABFILTER PRODUCT, SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. FABFILTER, FREDERIK SLIJKERMAN AND FLORIS KLINKERT, DO NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS OR THAT THE SOFTWARE WILL OPERATE ERROR-FREE OR UNINTERRUPTED. TO THE MAXIMUM EXTENT PERMITTED BY LAW, FABFILTER, FREDERIK SLIJKERMAN AND FLORIS KLINKERT, SHALL NOT BE LIABLE FOR ANY DAMAGE A FABFILTER PRODUCT MAY CAUSE OR DAMAGES THAT MAY ARISE OUT OF THE USE OF A FABFILTER PRODUCT OR INABILITY TO USE A FABFILTER PRODUCT, INCLUDING BUT NOT LIMITED TO SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES. IN NO EVENT FABFILTER, FREDERIK SLIJKERMAN OR FLORIS KLINKERT WILL BE LIABLE FOR AN AMOUNT IN EXCESS OF TWO HUNDRED FIFTY EUROS (€ 250,00).

Next: [Acknowledgements](#)

See Also

[Purchasing FabFilter Pro-Q 2 Support](#)

Acknowledgements

A huge thanks to our all our beta testers for their relentless testing of the different beta versions!

Next: [About FabFilter](#)

See Also

[Purchasing FabFilter Pro-Q 2 Support](#)

About FabFilter

Beautiful sound. Fantastic workflow. These are the foundations of FabFilter. We create powerful audio plug-ins with superb sound quality and innovative interfaces.

A unique perspective

At FabFilter, we make the best possible tools for music production and audio processing. To achieve this, we continually rethink and challenge industry standards: we've never been afraid of reinventing the wheel. Considering every little detail, we tune our algorithms and interfaces until they sound perfect, look amazing and feel great to work with.

It's the sound that counts

Above everything else, you need superb sound quality. That's why we put a lot of effort into developing unique audio processing algorithms, ranging from our famous resonating filters to transparent high-end EQ and dynamics processing.

Innovative interfaces, great design

Every FabFilter plug-in has an easy-to-use, well-designed interface aimed at providing unsurpassed workflow. Our plug-ins focus on the task you're performing at that specific moment: they expose the features you need, when you need them. And because of our special attention to design, you'll be delighted every time you open a FabFilter plug-in.

Don't take our word for it

We always set the highest standard for sound quality, usability and design to make truly great products that raise the bar on what audio software can do. That's why we're very happy with the praise we've received from users and press alike:

"In the decade since the release of its first plug-in, One, FabFilter has made an indelible mark on the music production landscape." — Computer Music magazine

"While many other software developers are busy trying to model hardware, FabFilter is leaving them in the dust by being visionaries and reaching into the future. FabFilter stuff is just on another level." — Jeff Sanders

"FabFilter has an enviable reputation for making easy-to-use, powerful tools." — Music Tech magazine

FabFilter was founded in 2002 by Frederik Slijkerman and Floris Klinkert, and is based in Amsterdam, The Netherlands.

See Also

[Support](#)

[FabFilter web site](#) 