

live smart:EQ

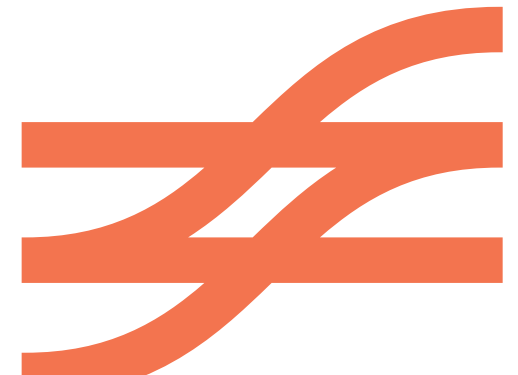
manual



| live never felt so good.

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welcome to smart:EQ live

The adaptive equalizer smart:EQ live by sonible analyzes audio signals, interprets them musically and compensates spectral imbalances in real-time.

Live sound engineers are all too familiar with stressful circumstances. Often there is little or no time for sound checks and proper preparation. Engineers constantly have to deal with unexpected situations and need to make substantial decisions within seconds. That's why sonible developed smart:EQ live.

Based on different analysis methods, the plug-in is able to recognize spectral deficiencies in the audio signal (broad- and narrow-band) and to compensate them with an accurate and complex filter structure within seconds.

Informed by years of hands-on experience, the practice-oriented selection of parameters facilitates a targeted adaptation and control of the unique smart:filter section of smart:EQ live for a hassle free mixing experience.

Get started with smart:EQ live and enjoy your new live workflow!

install

Minimum requirements

| | |
|--------------------------|---------------------------------------|
| CPU | Intel Core Duo i5 |
| RAM | 2GB |
| Operating systems | Windows 7 (32/64 bit) Mac OSX 10.7 |



You will need admin rights to successfully install the plug-in.

Windows



To start the installation process, extract the downloaded zip-file **sonible_smartEQlive_win.zip** on your hard disk and run the installation file **smartEQlive_installer.exe**.

The installer will now guide you through the necessary steps to install smart:EQ live on your computer.

During installation, you can select which version(s) of smart:EQ live should be installed. You can also select custom installation folders for the VST2 and WPAPI version or simply use the default folders provided by the installer.

The VST3 and AAX version of the plug-in will automatically be installed to the default folders for the respective format:

VST3 (on a 64 bit operating system):

..\Program Files\Common Files\VST3\
..\Program Files(x86)\Common Files\VST3\

AAX (on a 64 bit operating system)

..\Program Files\Common Files\Avid\Audio\Plug-Ins
..\Program Files(x86)\Common Files\Avid\Audio\Plug-Ins

Mac OSX



To start the installation process, please open the disk image **sonible_smartEQlive_osx.dmg**. This will mount the image and open a finder window showing the content of the installation package.

To install smart:EQ live on your system, please run the installation file **smartEQlive_installer.mpkg**.

The installer will now guide you through the necessary steps to install smart:EQ live on your computer. smart:EQ live will automatically be installed at the default locations for audio plug-ins:

Audio Unit

/Library/Audio/Plug-Ins/Components/smartEQlive.component

VST

/Library/Audio/Plug-Ins/VST/smartEQlive.vst

WPAPI

/Library/Audio/Plug-Ins/WPAPI/smartEQlive.bundle

If you need to change the location of the plug-in, please drag the corresponding file(s) manually to the designated folder after the installation has finished.



Please note that smart:EQ live requires the **PACE iLok License Manager**. Please download the software from **www.ilok.com** and install in to your system. You don't need to have an iLok or an iLok account. This application allows us to ensure the integrity of our products for a better user experience.

authorization

Licensing system

The licensing system of sonible is based on a machine-based model and iLok.

Machine-based model

This means that each license key allows you to install smart:EQ live on two computers with unique system IDs. These system IDs are computed during license activation.

The same license can be used by multiple users, but each user has to individually unlock the full version of smart:EQ live under her/his account.

If a system-ID changes (e.g. replacement of the hard disk), please contact us and ask for instructions to re-activate the license.

iLok

If you want to use your iLok, please contact us and provide the purchased licence key and your iLok account name. **Attention: please double-check your spelling!**

We will deduct one activation from your license pool which will reside in your iLok account from that moment on.

You can move it to different iLoks or computers the way your used to via the iLok Licence Manager.

support@sonible.com

Unlocking

When opening smart:EQ live for the first time, a notification window will be displayed asking you to unlock smart:EQ live with a valid license key.

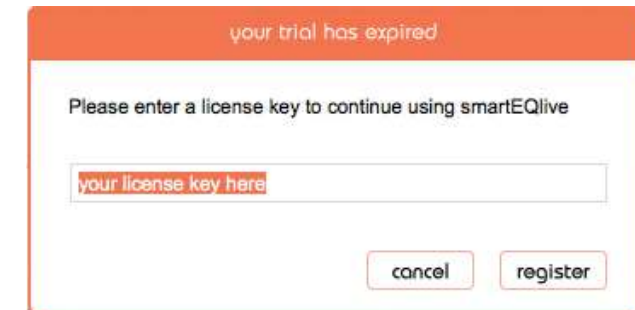
- Please make sure that your computer is connected to the internet before starting the registration process.
- Enter your license key and click „register“. The plug-in will now communicate with our server to check if the license is valid. If it is - enjoy! :)

If you purchased a license for smart:EQ live online, you receive your license key via email.

Trial version

To run smart:EQ live in demo-mode, simply click "try" and you can use smart:EQ live a couple of days without any limitations.

After a certain number of days (see website), the demo-mode will expire and you need to purchase a license to continue to use the plug-in.



updates

stay up to date

If a new release of the plug-in is available you'll get a notification at the top left of the plug-in window (see screenshot). By clicking on the orange label you'll be forwarded to a website where you can download the latest version of smart:EQ live.

To install the latest version of smart:EQ live, simply follow the installation instructions given in this manual. A reactivation of the plug-in is not necessary.

update notice
click to update



user interface

an overview

tabs

Use the three tabs to switch between the following sections:

- 1. *smart:filter*
- 2. *profiles*
- 3. *snapshots*

interactive equalizer

Use this section to interactively control all filter curves. The filter parameters (center frequency, quality and gain) can be adjusted freely.



settings

Access smart:EQ live settings.

tab area

This area provides control parameters according to the chosen tab on the left (smart:filter, profiles, snapshots).

EQ parameter section

The EQ parameter section provides an overview of all filter settings.

tab area

1 smart:filter

The first tab (wand symbol) provides you with all parameters to configure your smart:filter.

The smart:filter is enabled by pushing the on/off icon. When activated, an additional orange curve will appear inside the equalizer interface. This is the weighting function for the smart:response. Once a smart filter has been *learned*, you can interact with it as with any normal filter.

start the learning process

To use the smart:filter, the plug-in has to learn the adaptive filter curve (*smart:response*) performing the following steps:

1. enable the smart:filter

Click the on/off symbol on the left to enable the smart:filter.

2. start learning

To start learning manually, click the record button. Now, a pulsating pause icon indicates that the smart:filter is actively learning.

3a. continuous learning

record

Use this button to start or stop learning. While learning, a pause symbol will be displayed instead of the record button.

on/off

Enable or disable the smart:filter.

reset

This button resets the learned filter curve (smart:response).



auto-stop

When activated, the smart:filter will stop learning as soon as a certain spectral balance has been reached.

If the *auto-stop* button is **not** activated, the filter will continuously adapt to the source signal, allowing for dynamic changes of the smart:response over time.

3b. auto-stop

If *auto-stop* is in an active state (orange), the smart:filter will stop learning as soon as a certain spectral balance has been reached (the pause button stops blinking and turns back to a record icon).

To continue learning, repeat steps 2 and 3. To restart learning from scratch, click on the reset button "x" and repeat steps 2 to 3.



The smart:filter block (on/off, record, reset and auto-stop button) will be visible from all tabs.



control parameters

Apart from the *record*, *reset* and *auto-stop* button, there are several other control parameters to adapt the `smart:filter` to your needs.

threshold

This parameters sets a learning threshold for the `smart:filter`. The power of the input signal has to exceed this threshold to trigger the learning process.



Make sure that this threshold setting is low enough so that the `smart:filter` is able to adapt to your input signal!

adaptation speed

high - mid - low

The next control parameters are three toggle buttons called *high*, *mid* and *low*. These buttons help to set the adaption speed of the `smart:filter` within different frequency ranges.

The ranges can be controlled by the two vertical markers (they become blue when the mouse is hovered over the toggle buttons) in the equalizer interface.

For each range, there are four different adaptation speeds: *fast*, *mid*, *slow* and *freeze*:

A *fast* setting allows the filter to adapt quickly to new signal content, whereas a *slow* setting will tell the `smart:filter` to adapt slowly to new signal content. The exact speed can be set in the settings area, which is described later in this manual.

limit

If the option *freeze* is chosen, there will be no further dynamic adaption within the respective frequency range.

With the limit slider you can set a maximum gain for the `smart:response`. Thus, the `smart:response` will never exhibit gains above this limit. This parameter can be controlled by the slider or by the horizontal marker in the equalizer interface. You can only limit the smart response towards positive gains.

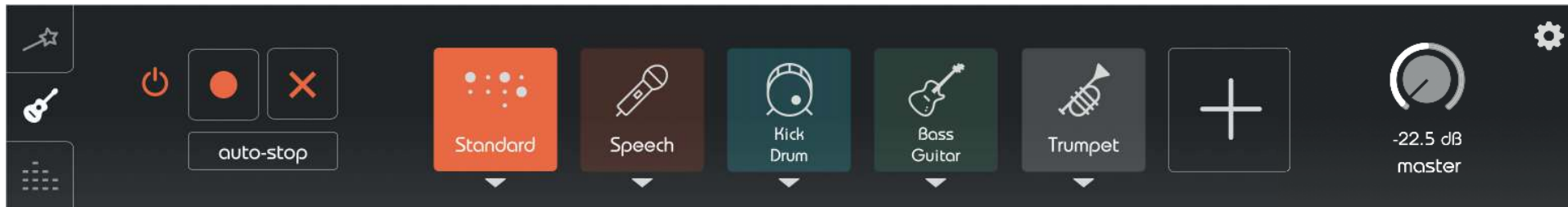
weighting curve

You can interact with a computed `smart:response` as with any other filter of the equalizer. The *weight* of the bell-shaped `smart:response` weighting curve corresponds to the *gain* of a classical filter and the *width* corresponds to its *quality*.

You can change the parameters of the weighting curve by dragging the values inside the numeric field or by moving the thumb within the equalizer interface (ALT + drag for changing the width).

master

The master slider controls the output volume. This parameter will always be visible - no matter which tab you have chosen.



2 profiles

The second tab (guitar symbol) provides you with a collection of different profiles, which prime the smart:filter towards certain source signals. In addition to a given set of standard profiles, you can create your own profiles to adapt the smart:filter to your musical needs.

choose a profile

You can choose different profiles using hot keys. Each hot key shows a profile with its name and icon. The profile can be assigned to a hot key by clicking the small arrow on the bottom. This action opens the corresponding drop-down menu listing the total collection of available profiles.

In order to activate a selected profile, just click on the hot key. An activated hot key is indicated by a brighter and more intense color. As soon as you activate a profile, the smart:response will change according to the selection.

Please note, that also the *adaption speed markers* as well as the adaption speeds for different frequency ranges will change according to the selected profile.

In addition to the activation by mouse click, you can also use the keys 1 - 5 on your keyboard to switch between the hot keys.

create a profile

If a smart:response computed based on a certain profile does not perfectly fit to your needs, you can easily generate new *custom profiles* and use them as the basis for future learning processes.

Let's say you like the result of a certain profile, but you want more heights. No problem! Adjust the computed smart:response using the classical filters of the EQ (e.g. add a shelving filter) and listen to the modified filter curve. Once you are satisfied with the result of the modified smart:response, save the changes to a new profile.

By saving the profile, the changes you made with the classical filters will be incorporated as a new learning information into the custom profile.

To save the profile, click the hot key with the "+" icon and enter a unique name. After name validation, the new profile will be assigned to the currently activated hot key and you can instantly start working with your personal profile!

All profiles are saved with the file extension ".spf" to the following paths:

OSX: ~/Library/Audio/Profiles/sonible/smartEQlive
Windows: My Documents\Profiles\sonible\smartEQlive

edit a profile

You can easily change existing custom profiles by

choosing the "update" option from the context menu of the hot key (right click on the hot key).

You can also activate a profile, make changes in the equalizer interface, click the plus button and save the profile with the same name. This will override the current profile.

If you want to rename the profile, please use the context menu as well.

delete a profile

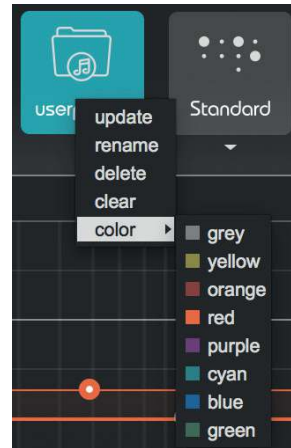
A user profile can also be deleted by opening the context menu of the hot key and choosing the option "delete".

 NOTE: This action can't be undone!

context menu

Each hot key provides a context menu. The menu is accessible by a right click anywhere on the key. In this menu, you have the following options (the first three options are described in more detail in the previous section):

| | |
|---------------|--|
| update | overwrites the profile with the current settings |
| rename | renames the selected profile |
| delete | deletes the selected profile |
| clear | clears the profile selection of the hot key |
| color | choose a hot key color |





3 snapshots

The third tab (dots) works analogous to the profiles interface, but helps to handle *snapshots*. A *snapshot* saves all settings of your current session, similar to a *preset* of classical plug-ins. Snapshots make it easy to recall a certain setup e.g. all profiles relevant for a certain show or track.

(Please refer to the section *profiles* to get a basic understanding on the handling of hot keys.)

To assign a snapshot to a hot key, click on the little arrow below the key and select the respective snapshot from the list. The name of the snapshot will now appear inside the hot key. Once selected, you can load the snapshot by clicking on the key.

To generate a new snapshot, click onto the "+" symbol and enter a name for the snapshot. Please note that the new snapshot will instantly be loaded into the currently active hot key.

To change the settings of a snapshot, you can use the *update* option in the context menu or the "+" symbol on the right and overwrite the snapshot.

All snapshots are saved with the file extension ".spr" to the following paths:

OSX: ~/Library/Audio/Presets/sonible/smartEQlive
Windows: My Documents\Presets\sonible\smartEQlive

interactive equalizer

precision mode

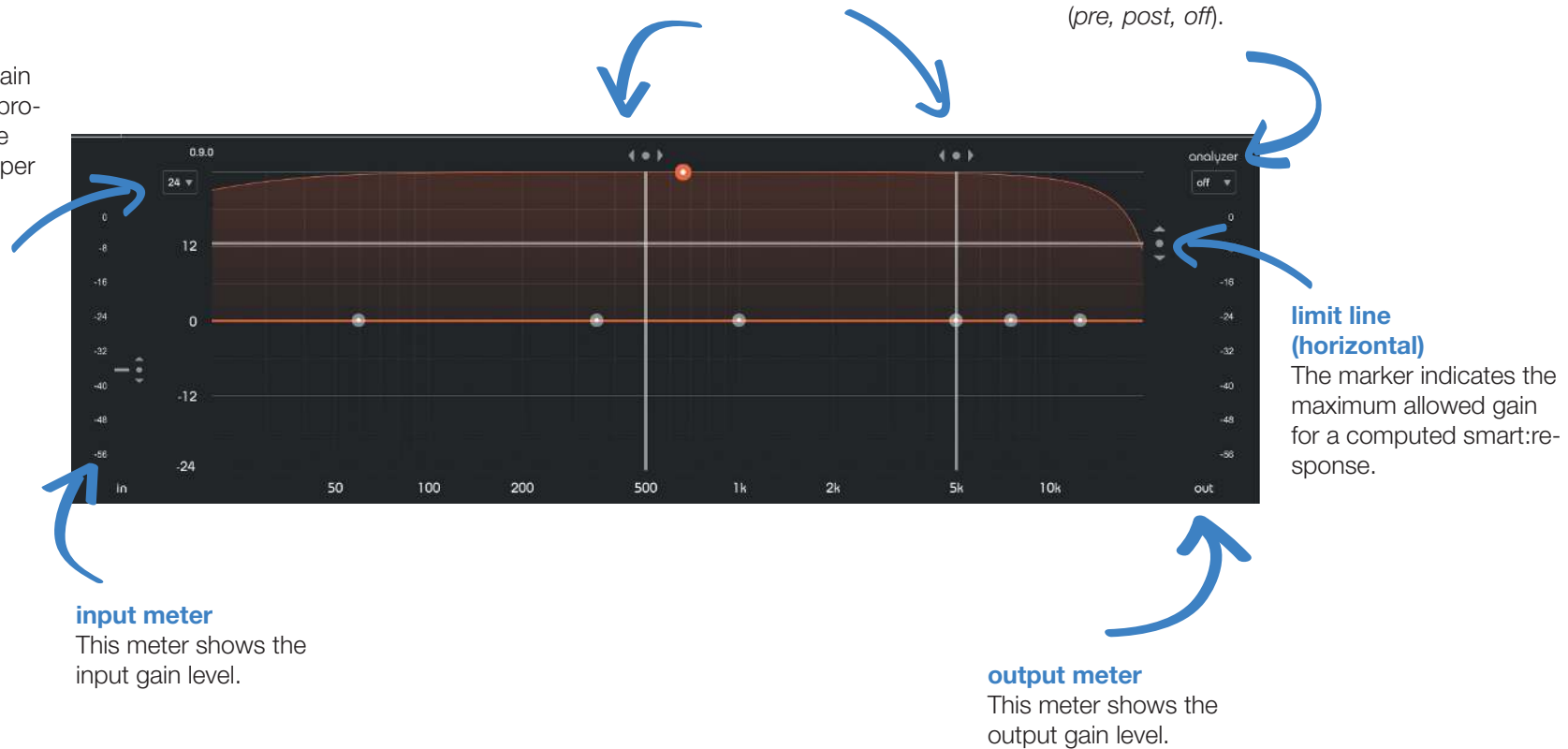
To zoom the y-axis (gain values), select the appropriate range inside the drop-down on the upper left.

adaption speed markers (vertical)

The two markers indicate the borders between the three adaption speeds for different frequency ranges.

analyzer mode

The drop-down can be used to set the mode for the real-time analyzer (*pre*, *post*, *off*).



The interactive equalizer display of smart:EQ live allows for a very intuitive and quick control of all parameters of a filter band.

change parameters

You can simply drag and drop the thumbs related to each filter and immediately see (and hear) the resulting curve.

There are also three complementary key combinations for enhanced parameter control:

- alt+click+drag → change quality of the filter
- shift+click+drag → lock the center frequency
- double-click → reset filter band

In addition, it is also possible to change the quality (width) of a filter using the scroll wheel of your mouse hovering over an active thumb.

precision mode

Using the small drop-down on the top left, you are able to change the gain zooming factor (y-axis) of your interactive equalizer window between 24, 12 or 6 dB.

markers

The vertical and horizontal markers indicate the *limit line* (horizontal) and the borders between the *low*, *mid* and *high* frequency ranges (vertical) for the adaption speed. For more information on the specific features of the settings, please refer to section "tab area - smart:filter".

real-time analyzer

smartEQ live provides you with a real-time analyzer of your input and output signal. On the right top corner of the equalizer display you can enable the analyzer by choosing an option from the drop-down: *pre* (input signal), *post* (output signal) and *off* (analyzer disabled).

parameter section



The parameter section shows six filter bands and their related parameters. When hovering over the parameter section of a band, the band is highlighted with the color of the related filter curve inside the interactive equalizer display.

filter selection

With a click on the filter symbol (cut, shelving, peq) the filter type of each band can be selected. With another click on the selected filter symbol, the filter band can be disabled or enabled again.

changing parameters

All filter parameters can be changed by dragging the respective value up and down with your mouse. In addition, a click on the label will allow you to edit the value with your keyboard.

Use ALT + Click on the label for a reset of the value.

The values can also be changed using the thumb control inside the interactive equalizer section (see chapter "smart:EQ live - interactive equalizer").

flat

The *flat* button resets all filter gains to 0 dB. All other filter parameters are retained.

reset

The *reset* button resets all parameters of the plug-in to their default values.

bypass

This button can be used to bypass all processing of smart:EQ live. This internal bypass may be helpful when the bypass function offered by your host leads to glitches or sync-problems with other tracks.

resizing

In the bottom right corner, you see a triangle that enables you to resize the plug-in. The next time you open the plug-in, the size will be restored.

filter types

low cut

high cut

low shelf

high shelf

bell



settings

smart:filter settings

Here you can set the adaption speed for the different frequency ranges (see next section).



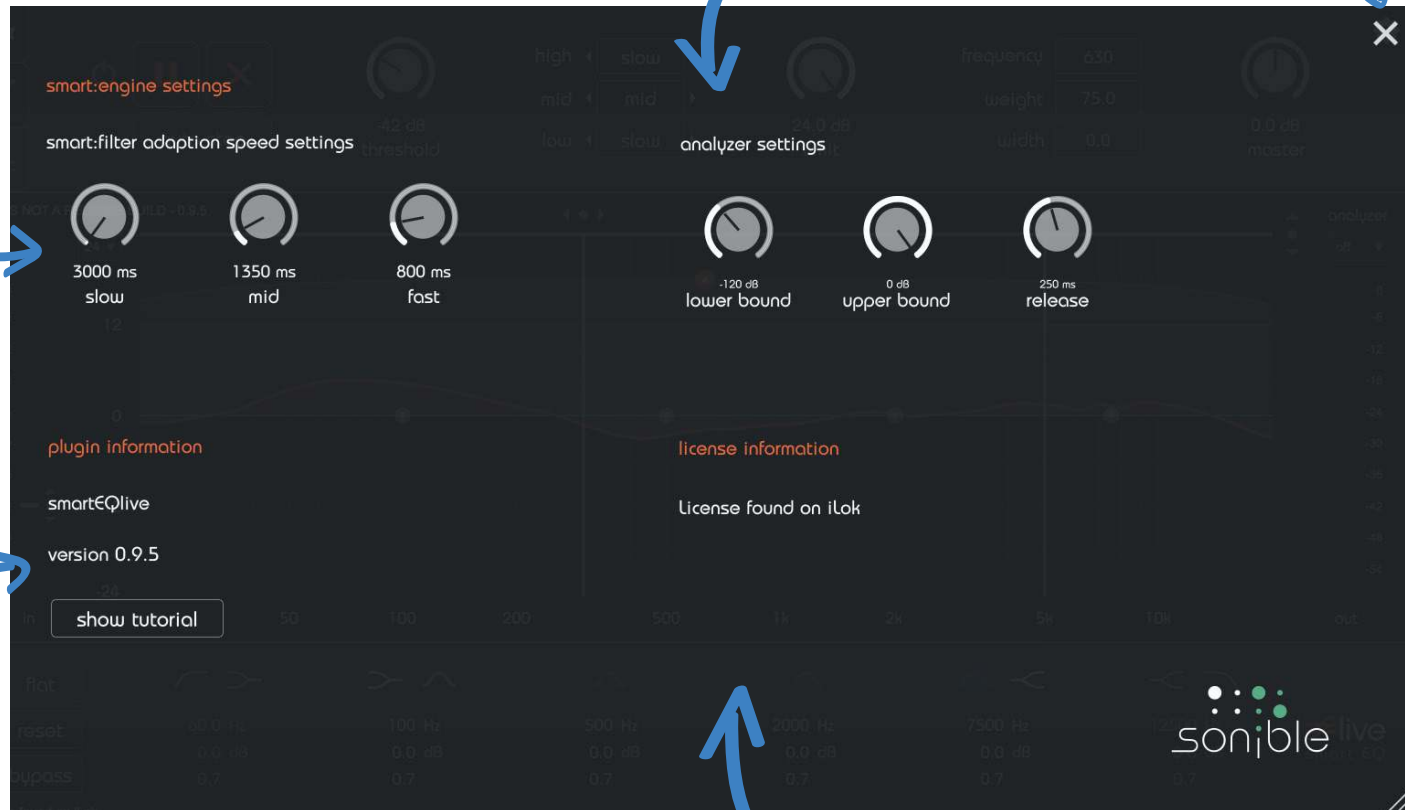
real time analyzer settings

Define the display range and release time of the real time analyzer.



exit settings

Quit the settings screen.



plug-in information

Here you can find the name and version of your plug-in. You can start the welcome tour by clicking on "show tutorial".



license information

This will show your license state and number (if not licensed via iLok).



smart:filter settings

adaption speed

In this area you can set the adaption speed for the *slow*, *mid* and *fast* setting of the smart:filter.

The parameters are given in "ms" and indicate the observation time used by the smart:filter to compute a new adaption step. A high value will lead to a more stable filter (beneficial, if no unexpected signal changes occur), while a low value will lead to a highly responsive filter computation (beneficial, if a fast adaption to new sonic situations is needed).

For example, if you are using smart:EQ live on a sum signal, a stable filter (low adaption speed) will lead to very robust results.

If you are using smart:EQ live on individual channels, e.g. highly dynamic vocals, a faster adaption speed will help to keep better control of unexpected dynamic changes in different frequency regions.



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