smart:comp
manual

The spectro-dynamic compressor

sonible

contents

welcome to smart:comp

smart:comp is a unique spectro-dynamic compressor; finding the parameters for well-balanced compression results in just a few seconds. Through frequency-selective processing, smart:comp also ensures unparalleled transparency. With this multi-dimensional approach, compression has evolved to the next level.

smart:comp is the synergy of intelligently enhanced time-domain compression and trailblazing spectral compression. Behind the user-friendly and intuitive interface of the new plug-in, runs the smart:engine – an A.I.-based, content-aware system designed on the basis of psychoacoustic principles as well as extensive hands-on mixing experience.

The time-domain compressor recommends the most appropriate settings for threshold, ratio, attack and release with a single click, while the spectral compression dynamically keeps an eye on the tonal balance of the input signal.

The interrelated nature of compression parameters can make the crucial task of compression time-consuming and tedious. smart:comp significantly speeds up the process and delivers results with greater precision than ever, making it a valuable assistant for mixing and mastering professionals and aspiring talents alike.

install

System requirements

CPU	Intel Core Duo, i5
RAM	2GB
Operating systems	Windows 7 (32/64 bit)
	Windows 10 (32/64 bit)
	Mac OSX 10.7+

⚠ You will need admin privileges to successfully install the smart:comp plug-in.

Windows

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

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

During installation, you can select which version(s) of smart:comp should be installed. You can also select custom installation folders for the VST version or simply use the default folder suggested by the installer.

The VST3 and AAX versions of the plug-in will automatically be installed in their respective default folders.

Default folders:

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_smartComp_osx.dmg**. This will mount the image and open a finder window showing the content of the installation package.

To install smart:comp on your system, run the installation file **smartComp_installer.mpkg**.

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

Default folders:

Audio Unit
/Library/Audio/Plug-Ins/Components/

VST
/Library/Audio/Plug-Ins/VST/

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

⚠ Please note that smart:comp requires the **PACE iLok License Manager.** Download the software from **www.ilok.com** and install it on your system. You don't need 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

You can select between two licensing systems: machine-based or iLok (USB dongle).

Machine-based
Each license key allows you to install smart:comp 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:comp under their account.

If a system-ID is changed (e.g. replacement of the hard disk), please contact us (**support@sonible.com**) and ask for instructions to re-activate the license.

iLok
If you want to use your iLok, please contact us and provide the purchased license key and your iLok account name.

⚠ Please double-check your spelling!

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

You can move the activation to different iLoks or computers the way you're used to via the iLok License Manager.

Unlocking

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

Machine-based unlocking
When opening smart:comp for the first time, a notification window will be displayed asking you to unlock smart:comp 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! :)

iLok
If you transferred your license to an iLok, simply attach the iLok to your computer. The plug-in will then be automatically registered – enjoy!

If you don't receive the email within minutes please check your junk folder first before contacting our support (**support@sonible.com**).

Trial version

To run smart:comp in demo-mode, simply click "try" and you will then be able to use smart:comp for a couple of days without any limitations. (Please refer to our website to find out more about the current demo period of smart:comp)

When the demo period expires, you will need to purchase a full license in order to continue using the plug-in.

user interface

Learning section
The learning section includes all controls for learning and recalling smart compression parameters. ->

State handling
Save different states of parameter settings for easy A/B comparison or to store personal presets. ->
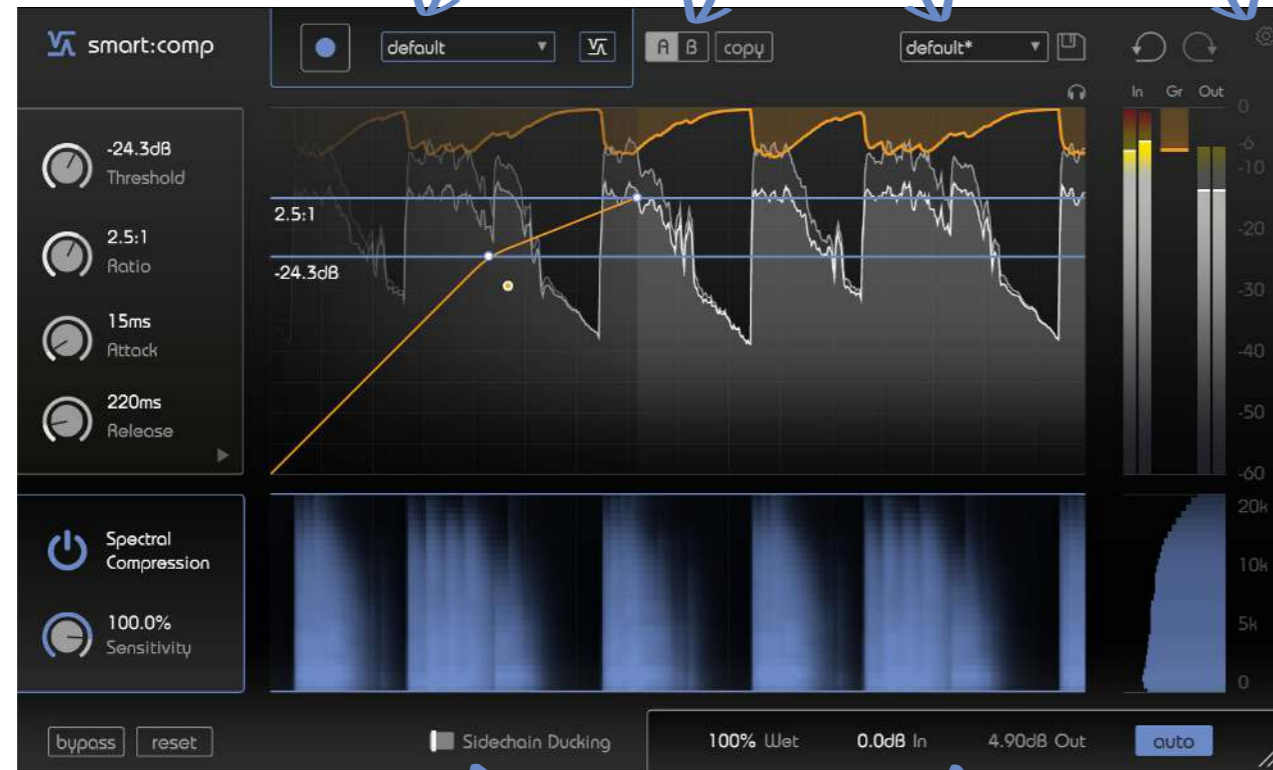
Settings
Access the settings page.
->

Time-domain compression
Control all parameters for the time-domain compression.
->

Spectral compression
Activate, monitor and control the spectral compression.
->

Sidechain ducking
Enable the sidechain mode for (frequency-dependent) ducking.
->

Mix & gain
Set the wet/dry mix for easy parallel compression and control of the (auto) gain.
->

---

time-domain compression

At its core, smart:comp is a high-quality time-domain compressor. You can either set all compression parameters manually using the controls outlined on this page or you can use the unique learning ability of smart:comp to let the plug-in find the most appropriate threshold, ratio, attack and release settings with a single click (see page 9).

To manually set parameters, you can access the most important values directly from the main window (see image on the right):

Threshold
Threshold defines the level of the input signal at which the compression effect is engaged. It must be set below the maximum level of the input signal.

Ratio
Ratio determines how much compression is applied to any signal that goes over the threshold.

Attack
Attack defines the time it takes for the signal to become fully compressed after exceeding the threshold level.

Release
Release defines the time it takes for the signal to recover from its compressed state to its original non-compressed state.

Knee
Depending on the knee shape, smart:comp commences gain reduction, after the signal has exceeded the threshold level, either gradually (soft knee) or rather abruptly (hard knee). The softer the knee, the slower the compression approaches the defined ratio as the signal level increases.

Ratio line
Visually set the ratio for the compressor.

Gain reduction
Visual history of recent compression values.

Listen to difference signal
Listen to the difference between the input and output signal.

Threshold line
Visually set the threshold for the compressor. To trigger compression, you have to make sure that the peak-levels of the input signal are above the threshold.

Knee control
Modify the knee of the compressor transfer function. Pulling the thumb away from the threshold line leads to a softer knee.

Input & output signal
Recent history of the input signal (background) and the processed output signal (foreground).

Shape & detection focus
You can expand the compressor parameter box (click the little arrow at the lower right) to further fine-tune the characteristics of the compressor (see page 8).

Shape & detection focus

click to expand

Shape | attack and release shaper

The attack and release behavior of smart:comp can be configured visually in the attack and release shaper. The ability to fine-tune smart:comp's attack and release characteristics is great for sound design and for sculpting transients.

Attack shape
The attack shape defines how fast the signal will reach maximum compression during the attack time after exceeding the threshold level.

Attack hold
The attack hold defines the amount of time the compressor waits until the compression kicks in once the signal goes above the threshold.

Release shape
The release shape defines how fast the signal recovers from its compressed state during the release time.

Release hold
The release hold defines the amount of time the compressor waits until the signal starts to recover from its compressed state after falling below the threshold.

Focus | detection focus

In the focus tab, you can set the focus of the detection filter. Drag the lines to set the focus to a specific frequency range. Now the compressor will only be triggered by signal energies in the defined region (e.g. just the low bass).

To listen to the frequency region selected by the detection filter, click the little headphone icon below the frequency range display.

Automatic parametrization

smart:comp is equipped with a unique learning feature that finds the right parameters for well-balanced compression results in just a few seconds.

While learning mode is activated, the plug-in analyzes the incoming audio signal and recommends settings for threshold, ratio, attack and release.

The learning process

1. Select a profile (optional)

A profile calibrates the processing of smart:comp to a specific sound source.

Please note that you can always start the learning process with the "default" profile and switch to more specific profiles later.

2. Start the audio playback & start learning

smart:comp needs incoming audio material for the learning process. Once the playback started, click the blue record button. Now, a pulsating pause icon indicates that smart:comp is actively learning.

While learning, a progress bar inside the profile dropdown indicates the progression of the process.

3. Done!

When the learning process is finished, smart:comp will automatically set all learned parameters (you can disable the "auto apply" feature on the settings page) and the smart state button as well as all learned parameter sliders will turn blue.

Learning
Click the record button to start or pause learning. While learning, a pause symbol will be displayed instead of the record button.
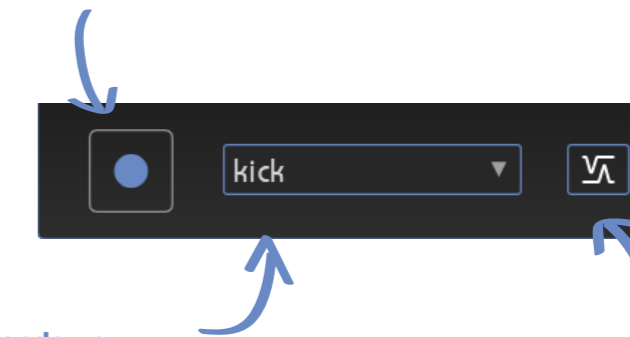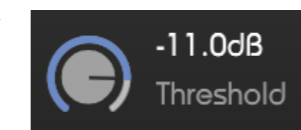

Profile dropdown
Expand the dropdown menu to select a profile that best matches your audio material.

Smart state button
This button indicates if you are currently in a smart state (the button is BLUE, all compressor parameters are set to their automatically learned values) or if one or multiple parameters have been manually modified (the button turns BLACK).

Smart parameter
A blue slider color indicates automatically set parameters.
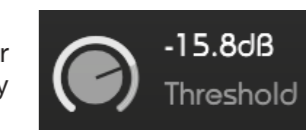
Modified parameter
A white slider color indicates manually modified parameters.
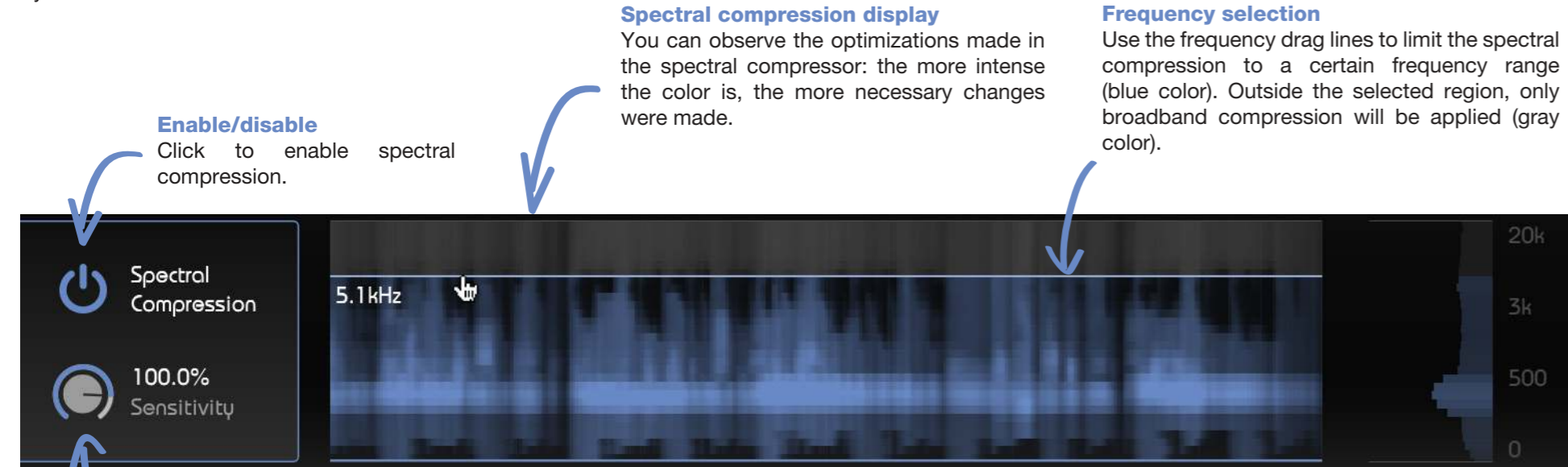
⚠ **Hint:** When the learning process is finished, smart:comp also activates the **spectral compression** (see section Spectral Compression for more details).

spectral compression

Spectral compression is all about giving a track the best possible definition and maximum transparency.

By continuously analyzing the input signal across more than 2000 bands, smart:comp acts like an intelligent, ultra-high-resolution multiband compressor that dynamically smoothes out tonal imbalances. It only applies compression where it's really needed and therefore ensures a consistent tonal as well as dynamic balance at all times.

> ⚠ **Hint:** To enable spectral compression you need to first finish the learning process. (see Page 10).

Spectral compression display
You can observe the optimizations made in the spectral compressor: the more intense the color is, the more necessary changes were made.

Frequency selection
Use the frequency drag lines to limit the spectral compression to a certain frequency range (blue color). Outside the selected region, only broadband compression will be applied (gray color).

Enable/disable
Click to enable spectral compression.

Sensitivity
Controls the sensitivity of the spectral compression. Higher sensitivity values guarantee a more precise spectral processing, lower values lead to more "classical" broadband compression results.

Spectral compression meter
The spectral compression meter shows the current compression value for each frequency.
If spectral compression is turned off, the spectral compression meter turns gray and smart:comp acts like a "classical" broadband compressor. That means that all frequencies are compressed equally.

---

sidechain ducking

In sidechain mode, the gain reduction of smart:comp is controlled by an external signal that is routed to the sidechain of the plug-in.

smart:comp provides two ways of working with a sidechain signal: broadband ducking (spectral ducking disabled) or frequency-dependent ducking (spectral ducking enabled).

Sidechain ducking (broadband)

1. Route a signal to the sidechain input

Route the signal you want to give space in the spectrum to the input of smart:comp. This signal will control the ducking process.
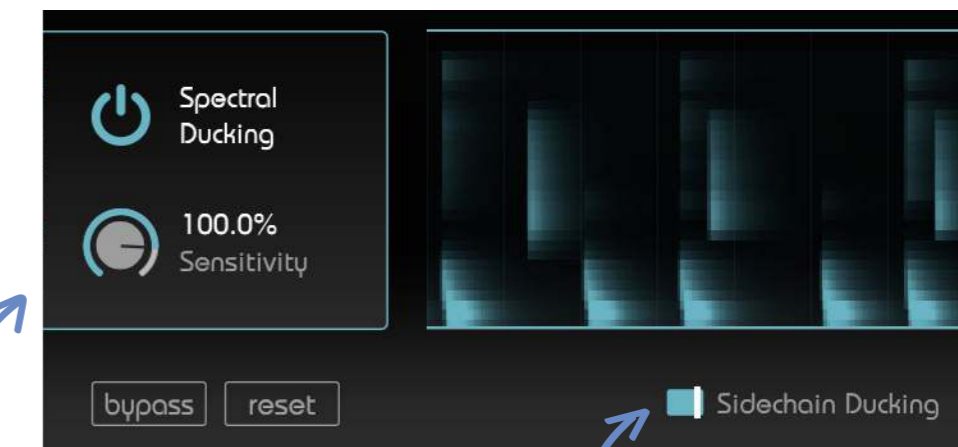
2. Enable sidechain ducking

Click the sidechain ducking switch to enable sidechain ducking. The color of all blue control elements will now turn turquoise to indicate the new processing mode.

As well, the sidechain signal will be displayed in turquoise in the interactive compressor display and the input meter will show the level of the sidechain signal.

Now the (broadband) gain reduction of smart:comp will be controlled by the level of the sidechain signal.

Spectral ducking (frequency-dependent)

In order to seamlessly merge signals that are competing for attention within the same spectral regions, smart:comp provides a unique frequency-dependent sidechain mode.

In this mode, smart:comp 'listens' for potential spectral clashes between the input and the sidechain signals. By dynamically ducking affected frequency regions of the input signal, it creates space for the sidechain signal.

To enable spectral ducking, **(1)** follow the steps outlined for broadband ducking and **(2)** start a learning process (for more details on the learning process, please refer to page 9.)

The spectral compressor display will now show where smart:comp compresses the input signal to give space to the signal routed to the sidechain input.

To control the impact of the spectral ducking process, use the sensitivity dial. If you are using a sensitivity close to 0%, the spectral ducking process will become more and more broadband and less frequency-selective.

Sensitivity
Control the sensitivity of the spectral ducking. Higher sensitivity values guarantee a very subtle merging of the input and the sidechain signal, lower values lead to a more "classical" broadband ducking effect.

Enable/disable
Click to enable sidechain ducking.

global parameters

State handling

Parameter States

A/B switch
By clicking on the A/B-button, you can switch between two different states of the plug-in.

Copy
Use to copy the parameter settings of the active state (e.g. A) to the other one (e.g. B).

Smart state
After finishing the learning process, the smart state retains all automatically learned parameters (for more information please refer to page 9).

Presets

To save a preset (all parameter values), click the floppy disk icon. To load a saved preset, choose the respective preset name from the dropdown.

If you want to delete a preset or change its name, go to the preset folder with your local file explorer. You can also easily share your presets among different workstations. All presets are saved with the file extension ".spr" to the following folders:

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

Output section

Wet

Control the ratio of wet signal to dry signal. At 100% you will only hear the wet (compressed) signal. By reducing the wet control, the plug-in will automatically blend the wet and dry signals.

For example, at a setting of 50%, you will hear a mix of 50% compressed signal and 50% dry input signal. This makes it very easy to apply parallel compression techniques without any additional routing.

In/out (input/output gain)

Since compression reduces the maximum level of a signal (all signal components above the threshold are compressed), the output gain (often called make-up gain) helps bring the average overall level back up so that the signal fits the mix. smart:comp will automatically set the right make-up gain when auto gain is enabled.

Auto gain

Enable the auto gain function. Auto gain automatically sets the output gain (make-up gain) to compensate for the level reduction caused by compression. After finishing the learning process, the button turns blue and the auto gain becomes a smart auto gain that guarantees a perfect matching of input and output RMS levels.

settings

To visit the settings page, click the little cogwheel in the upper right corner of the plug-in.
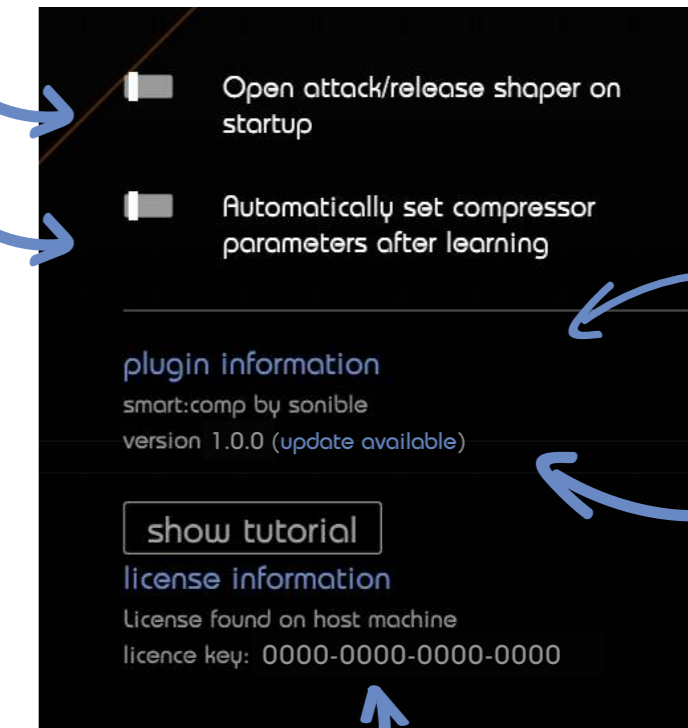
Default view*
Enable this switch if you are a fan of the attack and release shaper. If enabled, the plug-in will, by default, show the extended controls when a new instance is loaded.

Auto parametrization*
Enable this switch if you want the newly learned compressor parameters to be automatically set after learning.

Disable auto parametrization if you want to manually set newly learned parameters. This may help, if you want to parametrize the time-domain compressor manually and only need the learning process to enable the spectral compression or ducking.

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".

Update notice
If a new release of the plug-in is available, you'll get a notification on smart:comp settings page. Click on the blue label to download the latest version of the plug-in.

License information
This will display your license state and number (when not licensed via iLok).

* These parameters are global settings. This means that they will be applied to ALL instances of smart:comp (in all your projects).

smart:comp

www.sonible.com/smartcomp

sonible GmbH
Haydngasse 10/1
8010 Graz
Austria
phone: +43 316 912288
contact@sonible.com

All specifications are subject to change without notice.

www.sonible.com

sonible