# TruePlanes

# **User Manual**

Version 1.9.0





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# NOTE

Please store your TruePianos **reference code / password** and the **e-mail address** used while purchasing the product in a safe place.

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#### INTRODUCTION

Musicians becoming one with their instrument, telling lively and sometimes emotional stories through their music can be a reality only when an instrument has the expressive and dynamic qualities, as well as the natural feel to speak the artists' musical language.



**TruePianos** was developed with the ambition to produce the first virtual piano instrument which allows the user to experience exactly this.

The product offers highly intuitive controls which allow you to painlessly adjust the instruments' behavior to exactly match the combination of your own unique playing style and the characteristics of your MIDI keyboard.

Following our tradition, TruePianos is optimized for real-time performance. The CPU usage is low even with 96 kHz host sampling rates, and for advanced polyphony we support dual-core CPUs, spreading the load symmetrically.

TruePianos does not meticulously try to replicate existing pianos. Instead it uses a combination of the latest sampler, physical modeling and synthesis techniques to produce our interpretation of great playable pianos.

With the release of TruePianos v1.0, the product reached a milestone where we felt it reached the point that was needed to deliver, what it was originally intended to do.

Since the initial release several updates, which include several new modules have been released to our customers.

TruePianos still is under continuous development and we are dedicated keep evolving the product for quite some time to come.

We hope, that one day in the near future we'll be able to say that TruePianos is the piano plug-in of choice for many musicians, no matter the preferred type of piano sound, no matter the musical style.

Gone are the days of the dinosaur sized piano libraries that you might have been used to. We welcome you to the expressive world of TruePianos!

#### SYSTEM REQUIREMENTS

TruePianos system requirements vary, depending on the TruePianos module used. Future updates to the TruePianos Core engine will most likely, also influence these requirements.

Because of this the system requirements below are estimations based on the current version of TruePianos.

#### Windows requirements

- Windows XP or newer
- 2.0 Ghz Pentium 4 or Athlon CPU with SSE2 support
- 256 MB of free RAM
- A VSTi host (e.g. SONAR, Cubase, energyXT)
- A soundcard with proper ASIO drivers

#### Mac requirements

- Mac OS X 10.5 or newer
- Power PC G5\* or any Intel based Mac
- 256 MB of free RAM
- AU/VST/RTAS host (e.g. GarageBand, Cubase, Pro Tools)

Meeting these minimum system requirements should allow you to use TruePianos with 'normal polyphony' and 'sympathetic resonance' activated. Enabling the **Increased Polyphony** option will most likely cause the sound to break up and make TruePianos unsuitable for real-time performance.

#### **Recommended Windows requirements**

- 2.5-3 GHz Single-Core or 1.8 GHz Multi-Core CPU or faster
- 512 MB of free RAM or more

#### **Recommended Mac requirements**

- Intel Multi-Core based Mac
- 512 MB of free RAM or more

#### Supported hardware VST players

- Muse Research Receptor models (OS 1.7 / 1.8)
- Muse Research Receptor 2 models (OS 1.8)

Meeting the recommended system requirements or having one of the supported hardware VST players allows you to use the full capabilities of TruePianos.

<sup>\*</sup> Modules released starting 2009 will require an Intel based Mac

#### SUBSCRIPTION

The full version of TruePianos includes a one year subscription to software updates and technical support.

Technical support and updates for the software and TruePiano modules will only be provided for the subscription term. After the subscription is due, the right to use the software is restricted to the last available version at the subscription expiration date.

After the support and update term is due, it may be renewed manually at any time without a deadline. The exact renewal term is seen at the time of payment at the order page.

The Customer is allowed to update early without losing the effective support term, as the renewal period shall count only with the first download of the updated Software or Content, which was not available during the previous support term.

This subscription can be prolonged manually at any time without a deadline, as soon as the last period is over. The exact renewal term is seen at the time of purchase or renewal at the order page.

Customers who chose not to prolong the subscription are still entitled to use the version available at the last day of their prior subscription.

Details on how to prolong the subscription can be found in the **Customers** section of our website at <a href="http://www.truepianos.com">http://www.truepianos.com</a>

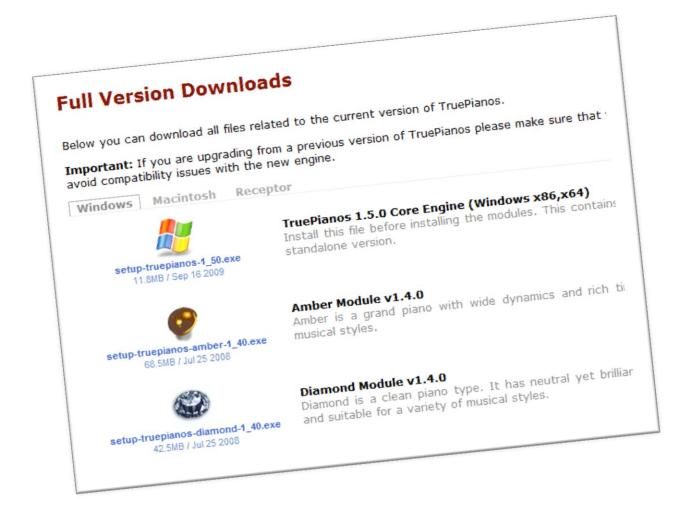


#### **DOWNLOADS**

After buying TruePianos you will receive an email which informs you of your **reference code**. You'll need this reference code to download the **full version** and future updates, for activating the product and if this should one day be required, to transfer your TruePianos license to another person.

To download the full version of TruePianos you'll need to login to the special **Customers** section of our website.

Go to <a href="http://www.truepianos.com">http://www.truepianos.com</a> → Customers → Login using the e-mail address you used while purchasing TruePianos as User Name and your reference code as Password



After logging in you can download the latest versions of **TruePianos Core** and all available piano modules.

#### STAYING UP-TO-DATE

You can expect to see regular updates for TruePianos on our website.

We are continuously doing research on how to further improve the heart of the product, the **TruePianos Core**, to provide you with an even more immersive piano playing experience.

Released **TruePiano modules** may be improved and **new piano modules** will be in development, at least till well into 2009.

If you wish to be informed whenever an update is released, feel free to subscribe to the TruePianos Newsletter.

To subscribe to the TruePianos Newsletter:

Go to  $\underline{\text{http://www.truepianos.com}} \rightarrow \text{go}$  to the bottom of the page  $\rightarrow \text{Subscribe} \rightarrow \text{Follow}$  the instructions given by the website.

## **PRODUCT ACTIVATION**

Before TruePianos can be used it needs to be **activated** on any computer on which you install it. If TruePianos is not yet activated, the TruePianos Activation dialog will pop up.





Windows

Mac OS X

Now enter your name and your reference code in the designated white input areas and click on OK.

If your reference code was entered correctly, the following dialog will appear.





Click **OK** to continue.

TruePianos is now activated and fully functional!

## **USING TRUEPIANOS**

Great care was exercised to keep the user interface as intuitive as possible. As a result, the amount of controls is kept at a minimum without sacrificing usability.

TruePianos produces a dry and unprocessed piano sound which won't limit your creative freedom while mastering/mixing your songs.

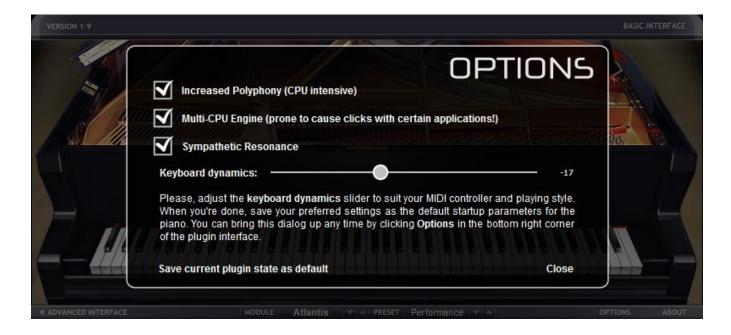
We believe that functionality offered by commonly available VST effects generally don't belong in the user interface of a virtual piano instrument. While we've made an exception for reverb which is very useful during live performances in combination with the standalone version of TruePianos, implementations of additional mastering effects would only complicate the user interface, without offering you the detailed controls and freedom offered by the many excellent free and commercial VST effects out there.

Since TruePianos is optimized for CPU usage, it leaves most computers with more than enough headroom for stacking VST effects on top of it, even during live performances where reliability of the instrument is crucial.



#### INITIAL CONFIGURATION (OPTIONS)

When using TruePianos for the first time, you'll be shown the **options** screen, which allows to easily adjust and store the most important settings.



To store your settings as the default settings click **Save current plugin state as default**. To close the options screen click **Close.** To access this screen in the future, simply click on **OPTIONS** on the bottom bar of the User Interface.

The settings on the options screen are explained in detail on the following two pages.

#### KEYBOARD DYNAMICS

The **Keyboard dynamics** slider is the most **important** control within TruePianos, as it is of great influence how you'll experience TruePianos.

This slider affects the velocity sensitivity curve, character of the instrument and many other aspects of the way TruePiano modules will respond and sound. In non-technical language: It enables you to adjust TruePianos to the combination of your playing style and the characteristics of your MIDI controller.

For my CME UF8 keyboard I find values -20...-17 to be close to optimal for my playing style. People with full-weighted Yamaha keyboards will probably prefer the slider a value around zero.

Please, tune it to match your keyboard - just keep playing, and if it plays too difficult - move the slider to the left, otherwise if the notes come too bright, move the slider to the right. When you are finished, click 'Save current plugin state as default' and then 'Close'.

#### INCREASED POLYPHONY

Activating **Increased Polyphony** removes TruePianos' default limit on the maximum amount of number of active voices at a time (polyphony).

Be sure that your computer has at least a 1.5-2.0 GHz CPU if you plan to use this option during live performances.

Depending on your playing style, especially combined with heavy use of the sustain pedal, the amount of active polyphony can easily surge far above 100 active voices. If your computer's CPU is not powerful enough to handle the increased polyphony in real-time, disable this option, especially when reliability is crucial.

On slower computers, **Increased Polyphony** can still be enabled to render your final composition. When doing so, always realize that a musician, while playing an instrument, will adjust to how the instrument itself behaves. If you play a piece of music at 'normal polyphony' and render the final result with 'increased polyphony', some of this musician-instrument interaction will be missing.

#### MULTI-CPU ENGINE

If you have a computer with two CPUs, or a dual-core CPU, TruePianos can take full advantage of the additional processing power offered by such a system. By enabling the **Multi-CPU Engine** the CPU load will be equally spread among both CPUs/Cores.

This is particularly useful while using the **Increased Polyphony** mode if your playing style combined with your sustain pedal usage is very polyphony hungry.

If you don't know whether your CPU has multiple cores you might try if enabling the Multi-CPU engine improves TruePianos' performance on your system.

Note, that some applications (such as Cakewalk SONAR for Windows) have their own way of handling multi-core processors, which depending on your setup, may not work very well together with TruePianos' Multi-CPU support turned on.

Since nobody has yet defined a standard of how the processor CPU time should be managed on multi-core workstations, we invite you to check these options and find the best balance of quality versus performance on your system.

Examples of multi-core CPUs which are able to take full advantage of the **Multi-CPU** engine are the **Intel Core Duo**, **Intel Core 2 Duo**, the **Pentium 4 D**(ual) and the **Athlon X2**.

#### SYMPATHETIC RESONANCE

When playing a real piano, hammers cause strings to vibrate which results in musical notes. This vibration of strings can cause other strings that are not damped to vibrate.

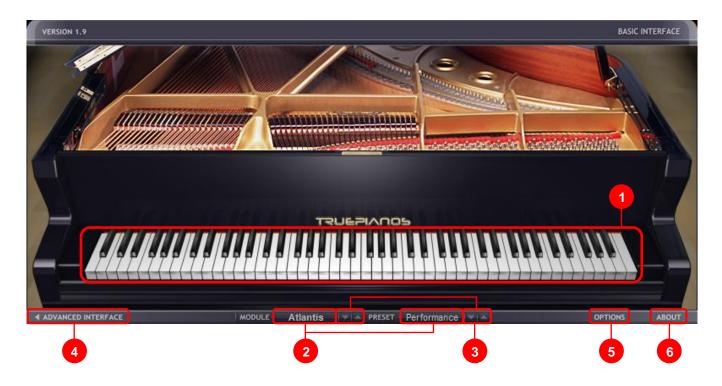
Enabling **Sympathetic Resonance** currently simulates the described behavior while the sustain pedal is down on all notes that are still playing.

Normally Sympathetic Resonance should be activated. In some cases you might want to disable it when you need the pedaled sound to be sharp and free of additional ambience.

The impact of **Sympathetic Resonance** on TruePianos' CPU usage is negligible, even on slow computers.

#### **BASIC INTERFACE**

TruePianos has two main user interfaces. One is the **Basic Interface**. This interface offers only the 'basic' controls required for playing the piano after being configured using the **Options** screen.



#### **INTERFACE USAGE**

#### 1. Piano Keys

- Click: quickly audit the sound of a module/preset.
- Shows the keys that are currently being played on the MIDI keyboard.

#### 2. Module/Preset name

- Shows the currently active module and preset.
- Click: Select the desired module or preset by name.

## 3. Up/Down arrow

- Click: Selects the next/previous module or preset.

#### 4. Advanced Interface

- Click: Switches to the advanced user interface.

#### 5. Options

- Click: Displays the 'options' menu.

#### 6. About

- Click: Displays the 'about' menu.

#### ADVANCED INTERFACE

If you want full control with instant access to all available settings within TruePianos and don't care about seeing an onscreen keyboard the **Advanced Interface** is for you.



#### INTERFACE USAGE

#### 1. Basic Interface

- Click: Switches to the basic user interface.

#### 2. Options

- Click: Displays the 'options' menu.

#### 3. About

- Click: Displays the 'about' menu.

#### A. Value boxes

- Click: Allows typing a precise value.
- Enter. Confirm entered value.

#### B. Sliders

- Click and hold while moving the mouse: Moves the slider to another position.
- Click and hold while moving the mouse: Overrides active 'value box' input.
- Click+Shift and hold while moving the mouse: Moves the slider to another position at greater precision.
- Double-Click: Reset slider to default value.

#### MODULE SELECTION

The active module name is highlighted while its icon is slightly dimmed. To load a different module, click on the icon of the preferred module.

If more modules are available than fit in the panel, arrows will appear on the sides of the panel. You can click on these arrows to scroll through the available modules.



#### PRESET SELECTION

This panel shows a list of available presets within the active piano module, as well as a short description of the active module. The currently active preset is highlighted.

To select a preset, click on its name.



#### **REVERB**

This panel offers the option to add reverb to the normally dry sound TruePianos produces. This is particularly useful if you plan to use TruePianos during live performances using the standalone version of the product. Reverb can be controlled using two sliders:

**Amount**: This slider determines how loud the wet reverb sound should be compared to the normal dry output sound. Moving the slider to the right increases the amount of



reverb that's applied while moving it to the left reduces the amount. Moving the slider completely to the left switches it off.

**Room Size**: By moving this slider you determine the size of the room that's simulated. Moving it to the right to increases the simulated space, while moving it to the left reduces it.

#### VELOCITY CONTROL PANEL

The velocity control panel offers a collection of controls which allows you to adjust how TruePianos behaves to MIDI input.

The Velocity control graph is affected by three sliders: **The Velocity Floor**, **Velocity Threshold** and **Keyboard Dynamics** slider.

**Velocity Floor**: This slider allows you to bring out the less bright piano sound of playing a piano softly, at much higher velocity levels as normally would be the case. It can be used to make presets darker as well as to compensate for not-so-perfect MIDI keyboards that don't let you play well at lower velocities.

Don't set the position of this slider too high. Doing so can make a piano module sound less expressive or even synthesized!

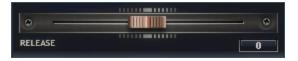
**Velocity Threshold**: Sets the minimal MIDI input velocity value TruePianos reacts to. This option is meant for people with sensitive non- and semi-weighted keyboards. Moving this slider a bit to the right avoids that you accidentally play a note while resting your hands on the MIDI keyboard.



**Keyboard Dynamics**: This slider affects the velocity sensitivity curve, character and many other aspects of the way TruePiano modules will respond and sound. See **page 19** for a full description.



**Release**: Changes the duration of a note going silent after a key on the MIDI keyboard is released while the sustain pedal is up. A negative value shortens the release time while a positive value higher than 0 increases it.



#### **TUNING**

The A4 pitch panel allows you to tune TruePianos based on the frequency of the A4 note. By default most software based instruments have their tuning based on A4 being at 440.0 Hz.

This is especially useful for combining TruePianos with acoustic or software instruments that are not tuned to 440.0 Hz.

The left slider changes the tuning frequency in 1 Hz steps, while the right slider works in 0.01 Hz steps (cents).



## **OUTPUT LEVEL**

The **Output Level** displays output levels graphically for both the left and right channel individually and allows you to lower the output level of TruePiano modules.

Moving the slider downwards from its default top position will reduce the sound output level by the amount of dB displayed in the value box.



#### **ABOUT**

The **About** screen displays the **licensee name** and provides buttons that bring you directly to a page on the TruePianos website (Internet Connection required).



#### INTERFACE USAGE

#### 1. Website

- Click: Shows the front page of the TruePianos website (http://www.truepianos.com).

#### 2. Demos

- Click: Let's you listen to music other people have made using TruePianos.

#### 3. Quick Tour

- Click: Shows a quick overview of the product.

#### 4. Update

-Click: Brings you directly to the update page where you need to login using your **e-mail address** as **User Name** and your **reference code** as **Password** 

#### 5. Close About screen

-Click on any location within the TruePianos interface where there is no button.

# SUPPORTED MIDI CONTROLS

Patch Change	$\rightarrow$	Change Preset
Control 000	$\rightarrow$	Select Module
Control 007	$\rightarrow$	Volume
Control 022	$\rightarrow$	Velocity Threshold
Control 023	$\rightarrow$	Velocity Floor
Control 024	$\rightarrow$	Tuning (Hertz)
Control 025	$\rightarrow$	Tuning (Cents)
Control 026	$\rightarrow$	Keyboard Dynamics
Control 027	$\rightarrow$	Room Size
Control 028	$\rightarrow$	Reverb Amount
Control 064	$\rightarrow$	Sustain Pedal
Control 066	$\rightarrow$	Sostenuto Pedal
Control 067	$\rightarrow$	Soft Pedal
Control 072	$\rightarrow$	Release
Control 091	$\rightarrow$	Reverb Amount
Control 127	$\rightarrow$	Reset Engine (all notes off)



