PRODUCTION GRAND COMPACT

For sforzando

User Manual

"Production Grand is still my favourite sampled piano I've ever played. I'm constantly amazed at the tones and responsiveness of it. I use it for live performance 3-4 times a week and I even prefer practicing on it than my real acoustic piano."

~ Email from Production Grand 2 Kontakt user.

Production Grand Compact User Manual

Description

Production Grand Compact is a high-quality piano sample library sampled from a Yamaha C7 grand piano in a world-class recording studio. Formatted for the FREE Plogue sforzando player, Production Grand Compact uses the same samples and keymaps as the Outside Tube microphone perspective from the larger Production Grand 2 LE. Production Grand Compact is approximately 11 GB* in size before lossless FLAC compression with 5355 samples!

Thanks to sforzando's ARIA Engine, the performance and sound quality of Production Grand Compact is every bit as good as or better than Production Grand 2 LE, the Kontakt version, with the same same settings applied! Nothing has been watered down. Production Grand Compact is Production Grand 2 LE's Outside microphone perspective for the sforzando player.

Production Grand Compact is ideal for Studio Production, Stage Production, Film Score Production, Live Performance and more!

Instrument Features

- Neumann "Golden" M149 tube microphone perspective just outside the piano lid
- Round-robin pedal noise samples with normal and loud settings
- Authentic hammer mechanism noises (Pre-Attack)
- Sampled key up mechanical noises from the actual keyboard action
- Sympathetic Resonance with on/off and volume controls
- Sostenuto pedaling
- Recorded at world-Class Toronto studio through classic Neve console
- Burl Mothership boutique-quality A/D converters used
- Premium microphone preamps used: API and Neve
- 12 velocities pedal up samples (selected from 16 sampled velocities)
- 12 velocities pedal down samples (selected from 16 sampled velocities)
- 12 velocities release samples (selected from 16 sampled velocities)
- Ultrafast loading
- Extremely memory efficient thanks to lossless FLAC compression

Note from the Developer

I have been itching to make a sforzando version of Production Grand with a user interface for some time! The Aria Engine sounds so good! Sforzando is inviting to program and develop for, it is straightforward for users and has great performance to boot. In fact, Production Voices has a Production Grand version for sforzando with four microphone perspectives that performs beautifully, but it doesn't have a graphic user interface. Plogue generously agreed to license a product for sforzando that made at least one microphone perspective possible from the much larger Production Grand 2 piano library.

So, I had to choose one microphone perspective from a possible 8. The "golden" (as the audio engineer called them for their sound) M149 Neumann modern tube microphones located just outside the piano are a great choice. These mics are over $10,000 USD for the pair and sound every bit as impressive. The perfect mics in the perfect position for a balanced piano sound with just enough direct close sound and developed open sound. When you combine a well maintained studio grand piano Yamaha C7 in a tuned world-class studio with excellent microphones, superior signal path, microphone pre-amps and unrivalled analog to digital conversion with 96k source samples, the result is a stunning piano sound that can only be matched from a studio grand. Production Grand 2 users rave about the sound and how inspiring the multi-mic piano library is! From producers to songwriters to film composers, they all share enthusiasm for Production Grand no matter what version they have. Now these same samples, at least one microphone perspective's worth, are in your hands and I am so pleased that I could create this piano library for you! It's been a labour of love! I can't wait to hear what music you make with it!

Jason Chapman
Lead Designer
Production Voices

Support
Contact us by email: support@productionvoices.com

Credits
Concept, Editing, Sampling, Programming, UI: Jason Chapman   www.productionvoices.com
Graphic User Interface Elements: Scott Kane
Recording Engineer: Dajaun Martineau
Assistant, Audio Editing: Eric Ferns
Addition Editing: Paul Mack

System Requirements

Minimum System

Plogue sforzando or Aria Player required.
Plogue sforzando is available for FREE here:
http://www.plogue.com/products/sforzando/

Production Grand Compact Minimum Requirements:
Multi-core Intel i3, i5, i7 or better recommended
8 GB RAM
64 bit operating system (Mac OS X or Windows)
2 GB of hard drive space for compressed samples.
7200 rpm or better non-system hard drive

Note: Production Grand Compact will not perform as expected on systems not meeting the minimum requirements.

Recommended System

16 GB RAM or more.
Fast hard drive: 7200 rpm, RAID or SSD.
Multi-core Intel i5 processor or better.
64 bit operating system and plugin host.

Getting Started

Installing Production Grand Compact for sforzando

Installation of Production Grand Compact for sforzando is fairly straightforward:

1. Download and install sforzando: http://www.plogue.com/products/sforzando/

2. Download Production Grand Compact for sforzando and unzip.

3. Place the "Production Grand Compact for sforzando" folder on the drive that you wish to run it from. Any fast hard drive will work. If available, we recommend an SSD solid state drive for best performance.

4. Launch sforzando.

5. Drag the "Production Grand Compact.bank.xml" file from within the "Production Grand Compact for sforzando" folder onto sforzando. This registers your purchase with sforzando and puts the presets into sforzando.
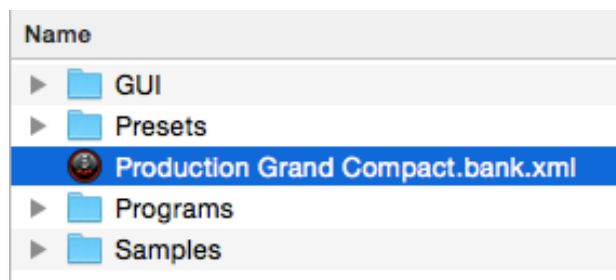
Loading Production Grand Compact Presets

Once Production Grand Compact for sforzando is installed, the presets will show up under the **SNAPSHOT** menu.

A Little Room – Balanced piano sound with some room reverb.
Authentic Dynamic – All piano options on and set to be dynamic and close to a real piano complete with piano "flaws".
Big Ballad – Best for pop music, this preset includes reverb and Tape Saturation for a bold sound.
Classical Recital – Full Touch Response and piano mechanical noises combined with hall reverb.
Club Gig – Lounge-like ambience to get that club vibe!
Dream Sequence – Film score setting with lots of long dreamy reverb.
Honky Tonk – Detuned piano for that classic honky tonk piano sound.
Intimate At The Piano – Expressive preset with no reverb for a close at the piano sound.
Monster Pop – Loud piano with a compression from the Tape Saturation and a hint of ambience. Perfect for pop songs.
Real Piano – Similar to Authentic Dynamic but with less mechanical noise "flaws".
Room Just Out of Reach – Piano in a smaller room with less width sounding just out of reach of the listener.
**Stage Rock Piano** – Loud slightly detuned piano with some Tape Saturation perfect for banging out chords.
Production Grand Compact Default – Factory initialized preset set to best overall sound for most playing styles.

Laptop touring musicians will find that Production Grand Compact works great on stage and loads fast!

PRODUCTION
VOICES

Recommended Plogue sforzando Settings Before Loading

Note: These recommended settings are only needed for loading from the **INSTRUMENT** menu. If you load from the **SNAPSHOT** menu, the settings are set automatically for you!
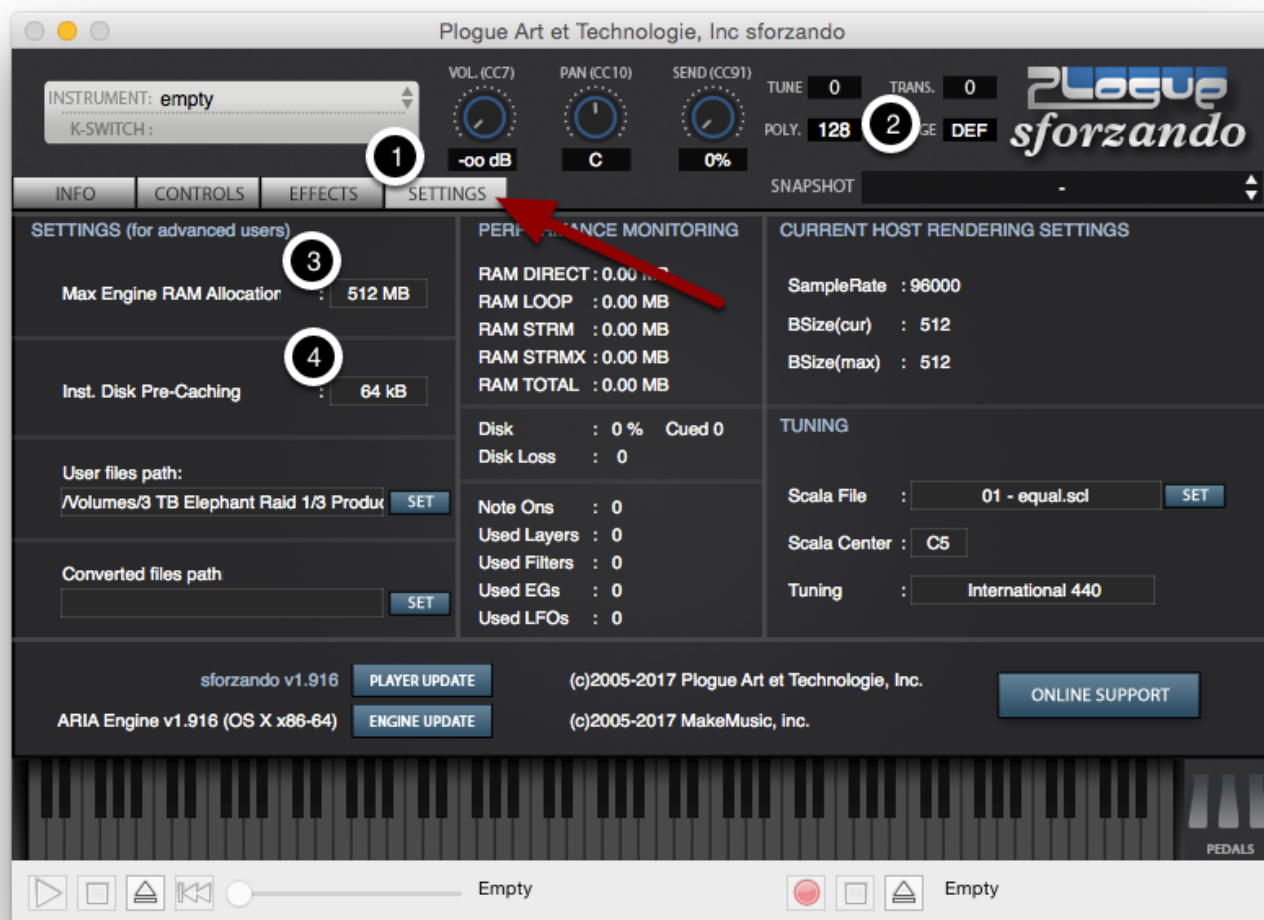
Before loading Production Grand Compact, set the following recommended settings:

1. Select the "SETTINGS" tab.
2. Set POLY. To 128.
3. Set "Max Engine RAM Allocatior" to 1 GB. This can be set lower on systems that have less RAM, but performance will be affected.
4. Set "Inst. Disk Pre-Caching" to 64 kB. This will load 64 kB of every sample into RAM as a buffer before streaming the samples from the hard drive.

Note: Production Grand Compact is quite "compact" and will run on fast systems with the default sforzando settings. The above settings are for optimized performance.

Production Grand Compact Controls


Main Volume:

MAX is the ideal Main Volume slider position with the exception of using Tape Saturation, which may require the Main Volume to be reduced. The slider moved to MAX at the right represents unity gain or 0.0 dB. This is where the fader is neither adding nor subtracting volume from the sound.

Main volume can also be controlled with MIDI CC#22.

HEPD Remap on/off:

HEPD Remap stands for **High-End Pedal Down Sample Remapping**. With HEPD Remap on, the pedal down samples on notes C4 and above are remapped to reduce the mechanical noise from both the piano and the sampling process.
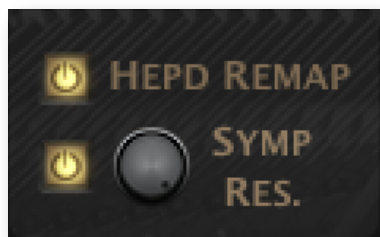
By default, HEPD Remap is turned on. It is only recommended to turn HEPD Remap off when Touch Response is set to MAX. With Touch Response at MAX, the mechanical noises in the samples are masked at lower velocities by the increased dynamic range. If this is all confusing to you, just leave it on!

Sympathetic Resonance on/off and volume:
Sympathetic Resonance is the harmonic ringing of a held note caused by the strike of another note that is within the harmonic series of the held note that naturally occurs on a piano. Wow, that last statement is technically right, but not very helpful if you don't know what it is! For example, if you play and hold C2, the C below middle-C and then strike and release middle-C, that note strike will cause C2, the held note, to vibrate at the frequency of C3! When C2 is released, the sympathetic resonance will stop.

Known issue with Sympathetic Resonance: If the held note is no longer playing, the release of the note will not stop the sympathetic resonance. A solution is in the works!

Production Grand Compact uses samples to emulate sympathetic resonance.

Sympathetic Resonance can increase the voice count and polyphony which results in higher disk load and increased CPU load. To save resources, Production Grand Compact 1.0 only has octaves and 5ths above a note up to the 3rd octave as sympathetic resonances.

Sympathetic Resonance can add warmth and realism to Production Grand, but at the expense of both increased cpu and voice count! For solo piano work it is suggested to turn it on, but perhaps advisable to turn it off in busy arrangements where the resonance is likely to be masked (not heard).

Width: Width controls the stereo balance. Full left is mono where both left and right channels sum to the center. Full right keeps the left and right channels separated for true stereo sound.

Reducing the Width can help the piano samples sound more distant and more realistic when reverb is applied. Full Width gives a more intimate at the piano sound. In some sound recordings with other instruments, a wide piano sound may not blend well in the mix. Reducing the width can help "sit" the piano in the mix.

Tape Saturation: Tape Saturation results in a compressed louder sound that can morph quickly into distortion. Tape Saturation is actually just simulated drive that causes harmonic distortion (the good kind). Keep levels low for best results.
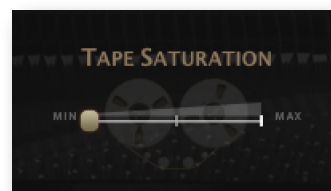
Touch Response is the dynamic range determined by velocity. Touch Response determines how Production Grand Compact adjusts the sample volumes to incoming velocity. At 100%, Production Grand Compact will respond exactly like it was sampled. Some users may find this too dynamic. 90% is about where most of the presets are set to. Setting Touch Response too low will result in the low velocities sounding noisy and louder than is natural on a "real" piano.

Mechanical Noises:

Key Noise: Key Noise controls the volume of the keyboard action sound as a key is released (The hammer returning). This key noise has no musical tone; it is just the key mechanism noise. PU controls the on/off and key noise volume for when the sustain pedal is up (off). PD controls the on/off and key noise volume for when the sustain pedal is down (on). With PD on, the key noise is only triggered when the sustain pedal is down and a key is released, for example. This is a subtle sound that is barely heard even at the maximum volume, but it adds that extra touch of realism. You might be asking: "Why have separate controls for pedal up and pedal down?" This gives added control to the mechanism noise and can help based on playing style.

In a busy production or song, the Key Noise may not be heard. Turn off Key Noise to save polyphony.

Pedal Noise: Sustain damper pedal mechanical noise.

The pedal noise controls the volume of the sound of the foot depressing and releasing the sustain pedal. Here the dampers activate the strings in the piano and then stop the strings with a subtle thud sound when released.

There is an on/off button for the pedal noise. Some playing situations may require the pedal noises to be turned off or down. Using lots of reverb usually requires pedal noise and other mechanical sounds to be reduced or turned off.

Most workstation keyboards do not have pedal noise, but it is one of the easiest ways to add realism to your sampled piano.

The Mod-Wheel controls the pedal noises as follows:

When the modulation wheel (MIDI CC#1) is less than 63, the pedal noises cycle through six variations of both pedal up and pedal down noises. These are the modest casual samples from "regular" pedal usage.

When the mod wheel has a value of 64 or greater, the louder more aggressive pedal noises are triggered. There are three variations for the pedal up and down noises (for a total of 6 samples).

If you want to trigger specific pedal noises manually, such as in a sequencer, they are mapped starting from C-2 (lowest MIDI note) and go up 18 notes.

Pedal Noise Tips:

Busy mixes, such as songs with many instruments, may mask the pedal noise. In this case, Pedal Noise can be turned off to save voice count.

On solo or sparse arrangements, consider increasing the pedal noise to give an intimate sound.

Pre-Attack is the mechanical key THUMP mechanism noise from striking the key (playing the key) from the moment the finger touches the piano to the moment the piano string begins to sound. This can add an ultra-real

and intimate sound to the instrument. The drawback is… LATENCY. Latency is the time difference between when a note is triggered and when a note sounds.

Imagine for the moment the softest note possible on the piano (which is included in the Production Grand Compact by the way). The speed at which you strike the key would have to be so precise and slow. While editing the piano samples, we noticed that the lowest velocities had around 120 ms or longer of mechanical noise and the fastest loud velocities were from 6 – 18 ms long. This means that turning on the Pre-Attack without LIVE on will cause a latency of at the very least 6 ms to the piano. This makes perfect sense, as a lower velocity would have the hammer mechanism travel slower. The problem with modern keyboard controllers is that samples are triggered at the bottom of the key bed, not the moment a player touches a key like on a piano. So, the latency is unavoidable until a better MIDI keyboard controller is invented.

The **LIVE button** plays the pre-attack sound at the same time as the sample strike to avoid latency. This is a balance between authenticity and playability.

Production Grand Compact Pre-Attack defaults with Live on, even if Pre-Attack is turn off.

With the **LIVE button off**, the piano will play the pre-attack before the sustain (as on a real piano) and delay the sustain sample until after the pre-attack. The timing of the delay is based on velocity, the speed at which a note is struck. Players will notice up to 100 ms delay on low velocities and less delay on higher velocities. This is true of a natural piano sound.

Pre-Attack Volume will naturally seem louder than the piano sample at lower velocities.

Pre-Attack Production Tip: Pre-Attack works best on solo piano or sequenced piano parts.

Pre-Attack is a natural part of the piano sound. Most sample libraries remove it or use an alternate start time to allow the mechanism noise to be bypassed by the user. We took a different approach with Production Grand Compact. Pre-Attack plays a pair of samples one after another at sample accuracy from the original recording session. The sample pair is the seamless pre-attack and the piano sample. Every sample has a different Pre-Attack time. This method of recreating the mechanism noise was the best approach to allow us to maintain different Pre-Attacks for different notes and velocities. When Pre-Attack is turned off, only the piano samples are triggered.

Release: Key Release is the volume control for samples triggered when a key is released or the pedal is let up when a note was sustaining from the pedal, but no key is held. This is the sound of the dampers stopping the piano string from ringing.

The key releases give a realistic sound to the stopping of a note that just isn't achievable with ADSR release envelopes. Users can vary how loud they like the key release samples. The longer you sustain a note in isolation, the more likely it is that you will hear the key release when a key is released.

All of the mechanical noises can add up to create an authentic piano sound that will surpass (and in many cases, blow away) most current keyboard workstations or digital pianos.

Performance Optimizations

Disk Issues

If you have a slow hard drive but plenty of RAM, set the Max RAM to 2 GB and set the Inst. Disk Pre-Caching as high as possible on the Settings tab of sforzando. This will load the entire Production Grand Compact into RAM bypassing the slow hard drive. With any luck, Production Grand Compact will no longer have disk issues and will likely be able to play many notes at once.

Memory Saving

If memory is scarce but your running a solid state drive (SSD) and a fast CPU, try leaving the default sforzando settings, or reduce the Inst Disk Pre-Caching and the Max Engine RAM Allocator. Production Grand Compact can run with under 200 MB of RAM with a fast drive for streaming.

Miscellaneous

Release Versions

Production Grand Compact Version 1.0 – Initial Release

The sampling session for Production Grand Compact consisted of 24 bit 96k samples that were converted to 44.1k using the Izotope conversion. Production Grand Compact uses both 16 bit samples for sustained notes and 24 bit samples for mechanical, pedal and pre-attack samples.

PRODUCTION GRAND COMPACT USER MANUAL

MIDI Control Numbers

Production Grand Compact controls have MIDI Control Numbers assigned to them as shown below. These are preset and cannot be changed. These controls can all be used live on a controller or sequenced in a DAW. Note that Touch Response, Saturation, Width and HEPD are out of the range of conventional MIDI, but still can be automated in a DAW.

MIDI CC#22=Main Volume

MIDI CC#24=Sympathetic Resonance Vol

MIDI CC#34=Sympathetic Resonance On/Off

MIDI CC#40=Ped Noise Vol

MIDI CC#41=Key Up PD Vol

MIDI CC#42=Release Vol

MIDI CC#43=Key Up PU Vol

MIDI CC#47=Pre-Attack Vol

MIDI CC#50=Ped Noise On/Off

MIDI CC#51=Key Up PD On/Off

MIDI CC#52=Release on/off

MIDI CC#53=Key Up PU On/Off

MIDI CC#57=Pre-Attack On/Off

MIDI CC#58=Pre-Attack Live

MIDI CC#59=Touch Response

MIDI CC#300=Saturation

MIDI CC#301=Width

MIDI CC#302=HEPD Remap I/O

PRODUCTION
VOICES

Production Grand Compact Strengths

Production Grand Compact loads fast, uses very little memory and contains the same Outside microphone samples as Production Grand 2 LE. It has a nice balanced sound suitable for many playing styles. Sampled from a 7' Yamaha C7 piano, the piano is bright yet robust. The Yamaha C7 is a fixture in many recording studios and medium size venues such as churches and performance halls.

Production Grand Compact Known Issues

Some users mention that the pedal down upper portion of the keyboard has excessive mechanical noise. This is both from the natural mechanical noise of the piano and the dynamic range of the sampling process. The dynamic range of the sampling session was from next to inaudible to the loudest strike possible and by loudest note strike possible I mean that I was worried that we were going to break the piano! To map these samples out into a useable product, the dynamic range has to be reduced as very few controllers are capable of responding to touch the same way a piano does nor could most players sustainably bang the piano the same way we did to sample it. The result is that the lowest velocity notes have the sound of the piano mechanism moving in them as that is how they sounded when recorded! There is an option, **HE PD Remap**, on Production Grand Compact that remaps the velocities of the upper end to reduce the noise. This option is on by default for any preset that doesn't have the maximum Touch Response value.

License Agreement

Production Grand Compact is licensed, not sold, to the end user. Users may have up to two installs. The complete license agreement can be found here: **http://www.productionvoices.com/terms-and-conditions/**

Legal Notice

Production Voices is in no way associated with Plogue, Native Instruments, Neve, Neumann or Yamaha. sforzando, Aria Engine and Kontakt are trademarks of their respective owners and are not associated with Production Voices.

*Specifications subject to change. Sample sizes are for reference only and may differ slightly depending on how drives are formatted.

Production Grand Compact for sforzando is © 2017 Production Voices.

Contact

Contact us by email: support@productionvoices.com

For the latest updates, tips, tutorials and news visit: www.productionvoices.com

PRODUCTION VOICES