

THE HALFLING

The Halfling User Manual

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TOUCH RESPONSE

SYMPATHETIC RESONANCE

PEDAL NOISE

CONTINUOUS PEDAL

REVERB

REVERB

REVERB

REVERB

REVERB

REVERB

REVERB

1 HAMMER

2 UPPER

3 LOWER

4 ROOM

5 SPELL 1

6 SPELL 2

7 SPELL 3

MAIN

SETTINGS

ENCHANTMENT

MASTER FX

PRODUCTION VOICES

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User Manual



Description:

The Halfling is an upright piano and soundscape virtual instrument. It is a collection of instruments and sounds inspired from a hobbit-sized upright piano that grew into a soundscape instrument that includes the spellbound sounds of a Hobbit or Halfling fantasy world. The upright piano alone is worth the price of admission into this incredible sample library, but the piano samples are just the beginning! Taking a page from Production Voices' own Death Piano, The Halfling is tortured, demented and beautifully flawed in a similar vein, but this time with a new sample set that includes throat singing samples, Wurlitzer 200A lid off, thumb piano, lo fi choir samples, wine glasses, bowls, church organ, toy piano, electric pianos and so much more. All the samples are new content recorded for this library. The samples are used as building blocks (referred to as Spells) to create piano and soundscape oddities that are sure to please.

Ideal for Studio Production, Stage Production, SoundDesign, Game Composing, Film Score Production, Performance and more!

Upright Piano Features:

- Pedal up samples
- Pedal down samples
- Release samples
- 4 stereo microphone perspectives
- Continuous Pedal controls (can half-pedal etc.)
- Catch-pedaling, Soft and Sostenuto pedaling
- Custom Reverb impulse responses (IRs)
- Sympathetic Resonance with on/off and volume controls
- Extensive Mixer Page with invert pan, mono left right and sum choices, output selection and more
- EQ, compression, reverb send for each microphone perspective
- Recorded at 24 bit 44.1k

Sample Set:

- 4 Stereo Microphone Perspective Upright piano
- Thumb Piano
- Glass: wine glasses, bowls
- Male Throat Singer: Ahhs, Eee, Hmm, Vowel Morphs, Drones
- Choir: lo-fi samples male and female
- MKS 20 EP samples
- Wurlitzer 200A lid off samples (stereo miked, non-amplified)
- Jewellery Box
- Toy Piano
- Many more oddities

Every copy of The Halfling is digitally watermarked with a serial number and contact information of the purchaser.



Upright Piano 4 Stereo Microphone Perspectives:

One of the key elements of The Halfling's upright sound is the 4 stereo microphone perspectives! Take the time to get to know where each was placed and how the placement and microphone choice changes the sound. Below is a summary.

Hammer Microphones: The hammer microphones give plenty of attack for a more aggressive sound. The hammer microphone perspective also captures plenty of hammer mechanism sound as well. These samples are excellent for cutting through a busy mix or a live band. A spaced pair of large diaphragm condensers were used on the hammers.

Upper Microphones: The front of the piano was removed and two large diaphragm condensers were placed left and right giving a nice stereo blend and great balance!

Lower Microphones: The bottom panel of the upright was removed for sampling and two large diaphragm mics were placed to capture the bass strings and the treble register.

Room Microphones: Room mics really do give you the feel of playing a piano in a room! The upright was sampled in a small living using small diaphragm condensers in ORTF. Just the right amount of ambience is used.

System Requirements:

****** NOT FOR USE WITH KONTAKT PLAYER ******

Minimum System:

Kontakt 5.7 and above including Kontakt 6
8 GB RAM
12 GB of available hard drive space
Computer that meets the minimum requirements of Kontakt.
Intel i3, i5, i7 or better

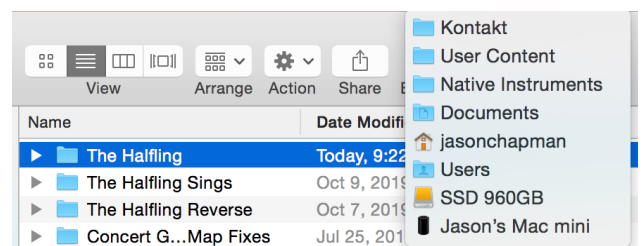
Recommended System:

16 GB RAM
Computer no older than 3 years old
Solid State Drive

Installation:

After purchase, downloading and unzipping instructions are provided in your email receipt. Once unzipped, follow these installation instructions:

1. **MOVE THE HALFLING FOLDER** to the solid state drive you wish to use if from.
2. **BATCH RESAVE** - From Kontakt's File menu, choose Batch Resave and select The Halfling Folder. Follow the detailed video on the Production Voices website.
3. **MOVE SNAPSHOTS** - Move Snapshot folders to Native Instruments User Content folder. For Macs, it will be located at: Users/User Name/Documents/Native Instruments/User Content/Kontakt. If you use iCloud, the folder may be in iCloud/Documents/Native Instruments/User Content/Kontakt. Follow the detailed video on the Production Voices website.
4. **DRAG The Halfling.nki FILE** into Kontakt. To start using and getting familiar with The Halfling, start with The Halfling.nki file and drag it into Kontakt. If you are missing samples on the first load, you may need to Batch Resave from Kontakt's file menu or Browse for samples folder and resave.



A detail installation video is available on the Production Voices website.

Presets:

The Halfling has three main .nki files:

The Halfling.nki - The main instrument where the majority of the presets/snapshots are made from.

The Halfling Reverse.nki - Sample set optimized for reverse samples and presets/snapshots.

The Halfling Sings.nki - Sample set optimized for vocal samples and presets/snapshots.

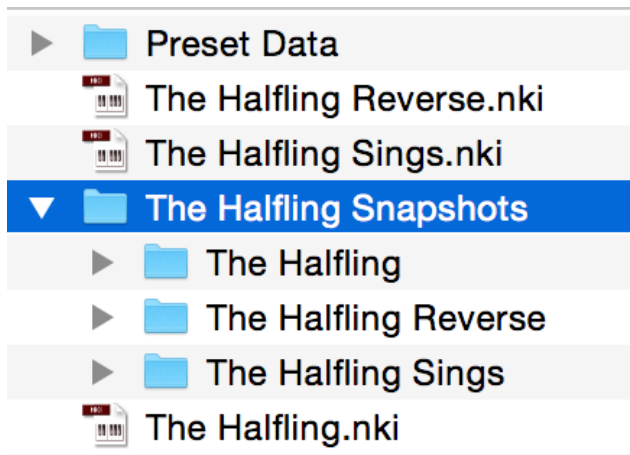
The Presets are stored as Snapshots that are easy to load.

There are two ways to load snapshots: 1. Drag the .nksn

file into Kontakt OR 2. Load from the snapshot menu once the snapshot folders have been added to Kontakt's User Content folder.

For each Kontakt .nki there is a corresponding Snapshots folder with the same name that contains the presets for the instrument.

CAUTION: Wait for the snapshot to load ENTIRELY before selecting another snapshot. Otherwise, you may experience a Kontakt Crash. There is a white progress bar under Purge that shows the load status of a snapshot. Refer to Kontakt's manual for details or view The Halfling loading presets video.



The Halfling Controls:

MAIN Page:

The MAIN Page gives quick access to presets and common controls.

1. The **Presets** drop down menu provides a few upright piano presets to get you started. The Halfling default preset loads all four microphone perspectives and provides an authentic upright piano sound that best matches the sound of the sampled upright. The Presets are available at the top of all pages.

2. The **Reverb Presets** drop down menu is identical to the SETTINGS Page Reverb Presets. The presets are included on all pages for quick access. A known issue is that selecting the reverb presets before selecting an instrument preset or snapshot can cause all the controls to zero out. Selecting a snapshot or instrument preset (Shown as "1" in the illustration) first will prevent this from occurring.

3. The **Controls** settings. Same controls as on the SETTINGS page, but on the MAIN pages for easy access.

Touch Response (same as on the Settings page) is the dynamic range determined by velocity. Touch Response determines how The Halfling upright piano samples adjust the sample volumes to incoming velocity. At 100%, The Halfling will respond exactly like it was sampled. Some users may find this too dynamic. 89% 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.

4. Each channel has a **Reverb Send** that influences how much of that microphone volume gets sent to the reverb. The reverb on the SETTINGS Page has to be turned on to hear the result. **The Reverb Send is pre-fader** meaning that the volume sent to the reverb is independent and not influenced by the channel/microphone volume UNLESS the channel is turned completely down or off.



With reverb setup as a pre-fader send, reverb can originate from a microphone perspective that has no DRY signal present in the mix. This gives lots of flexibility in the sound for audio engineers and producers.

5. **Volume Knob and Microphone On/Off:** The **Volume Knob** controls are straightforward: turn up to the right for more volume; turn all the way down to the left to mute and save voices (polyphony) on that channel. Command-Click (Control click on a PC) the volume knob to reset the volume to unity gain where the control is neither adding nor subtracting volume from the original sample. Unity gain is the ideal setting when using only one microphone perspective. The volume should be set lower than unity gain when two or more mic perspectives are active to avoid digital clipping.

The **On/Off channel buttons** switches turn on/off the respective microphone perspectives. When turned off, the memory used for that microphone perspective by the samples is purged. This means that the RAM used by the samples is cleared and available for other samples, libraries or other programs on your computer. If you save the instrument with the mixer on/off buttons in the “off” position, the Kontakt instrument will load, but with less memory use. The moment a microphone perspective is turned on, the samples will load into RAM and Kontakt’s memory server. Turning on/off a microphone perspective loads and unloads the samples quickly while still allowing the user to play the instrument.

The volume knobs when moved all the way down can function in one of two ways:

1. Mute the channel saving cpu resources, or,
2. Turn off the volume, but still plays the channel and uses resources.

There is a hidden button in the top left corner labeled “mute_groups” on page 4 of the scripting editor that switches between fader group muting or not. By default, it is set to mute the samples when a fader on the mixer page is turned all the way down. This will work for the majority of users. The default of muting the channel when a knob is turned all the way down will save valuable cpu resources and give greater polyphony to the channels still active. A few users may want to trigger notes and then blend in a microphone perspective from zero volume to full volume. These users will have to turn off the group button in the top right corner of page 4 on script editor.



SETTINGS Page 2 Mixer Section:

Plenty of traditional analog mixing controls are provided in The Halfling. Most of the controls make use of Kontakt’s SSL recording console emulations.

6. EQ, Compression and Reverb Send on every channel.

The **EQ** is Kontakt’s modelled SSL G EQ. There is an ON/OFF button for every channel’s EQ and an arrow to open the EQ. To keep the interface small and clean, the values for the EQ will not show up until you click on a knob and change a value.

7. MUTE SOLO Section.

M - Mute. When the channel/track is muted, not only is the channel not heard, but cpu resources are saved as well (reduces voice count). Mute is usually used as a temporary selection to compare when a channel is active or not or to work on the settings of another channel without hearing a certain channel or channels.

S - Solo. If a channel/track is soloed



only that channel can be heard. Several tracks can be soloed at once. Standard practice is to use solos temporarily to compare sounds in isolation. To remove other channels, turn down their volume or turn off the channel with the ON/OFF button instead of permanently using solo.

8. Channel Strip lower section controls.

Pan - Standard Left to Right panning. The panning style in Kontakt is to lower the volume of the left channel as panning goes to the right and vice versa.

Volume. The **Volume fader** controls are straightforward: push up for more volume; pull all the way down to mute and save voices (polyphony) on that channel. Command-Click (Control click on a PC) the volume knob to reset the volume to unity gain where the control is neither adding nor subtracting volume from the original sample. Unity gain is the ideal setting when using only one microphone perspective. The volume should be set lower than unity gain when two or more mic perspectives or Spells are active to avoid digital clipping.

The Volume Faders and Volume Knobs on the Main Page are linked and act as the same controls.

The Volume Faders when moved all the way down can function in one of two ways:

1. Mute the channel saving cpu resources, or,
2. Turn off the volume, but still plays the channel and uses resources.

There is a hidden button in the top right corner labeled “mute_groups” on page 4 of the scripting editor that switches between fader group muting or not. By default, it is set to mute the samples when a fader on the mixer page is turned all the way down. This will work for the majority of users. The default of muting the channel when a knob is turned all the way down will save valuable cpu resources and give greater polyphony to the channels still active. A few users may want to trigger notes and then blend in a microphone perspective from zero volume to full volume. These users will have to turn off the group button in the top right corner of page 4 on script editor.

Channel ON/OFF

The **On/Off channel buttons**/switches turn on/off the respective microphone perspectives. When turned off, the memory used for that microphone perspective by the samples is purged. This means that the RAM used by the samples is cleared and available for other samples, libraries or other programs on your computer. If you save the instrument with the mixer on/off buttons in the “off” position, the Kontakt instrument will load, but with less memory use. The moment a microphone perspective is turned on, the samples will load into RAM and Kontakt’s memory server. Turning on/off a microphone perspective loads and unloads the samples quickly while still allowing the user to play the instrument.

9. Mic/Spell Labels: The names of the channels indicate the placement of the microphone compared to the piano.

Channel Output Assignment - Each Channel can have an Output Assignment depending on the outputs created within Kontakt. This allows any microphone perspective to have its own mixer channel within your DAW such as Pro Tools or Logic Pro X. Having separate outputs for each microphone perspective is highly desirable when mixing as it allows processing such as EQ or compression to be applied to each microphone independently. This is the best approach when using The Halfling in recording or album production.

10. Send Reverb:

Type - Convolution or Algorithmic. **Convolution** reverb uses Impulse Responses known as IRs as samples of actual spaces or recordings of classic reverb units. **Algorithmic** uses math formulas (hence algorithms) to simulate reverb. Both types have their advantages. Convolution tends to sound the most realistic as the sampled reverb is coming from an actual acoustic space. Convolution reverb tends also to be more preset based where the actual reverb size is static. Algorithmic, by comparison, is more malleable and can change the reverb length and settings.

Most users will choose Convolution.

Most of the preset reverbs for The Halfling use Convolution.

Convolution Reverb Settings:

Pre-Delay - The delay between when a piano note is played and when that note is heard in the reverb. Longer pre-delays work for longer reverb times. Shorter pre-delays work for short reverbs. All the presets for The Halfling have the pre-delay perfectly set for the reverb.

Return - Return is essentially the reverb volume. How “wet” the signal is.

IR section

Algorithmic Reverb Settings:

Pre Delay - Delay between piano sound and the reverb start.

Size - Room Size

Colour - The amount of modulation added to the reverb tail similar to classic Lexicon reverbs

Damping - The amount of high frequency reduction. Damping can create a “warmer” reverb sound.

Stereo - The amount of stereo spread.

SETTINGS Page 2, Controls:

Many of the controls on the SETTINGS page are mirrored on the MAIN page. Adjustments made on either page will be shown on both pages. The controls are linked.

11. Velocity Curves: Getting the right feel from your controller.

Velocity Curves: Getting the right feel from your MIDI keyboard controller.

The top right portion of the page contains the built-in velocity curves. The velocity curves help match your MIDI keyboard controller and playing style to the volume/velocity response of the piano samples. If you find that you are not getting enough volume or aggressiveness out of the piano samples, try using a velocity curve that emphasizes the high velocities. Conversely, if you find that the louder velocities or notes are being triggered too easily while playing, adjust the velocity curve to suppress the upper velocities. Experimentation is quick so try several settings. Users can only save velocity presets by saving the Kontakt instrument (.nki file), as velocity

curves will not save with a snapshot. This prevents velocity curves from changing with every Snapshot selected. Our suggestion is to append the name as to not overwrite the factory settings. i.e. “The Halfling Hi Vel Curve”.

On/Off - The switch in the title bar turns the velocity curves on and off.

Strength works both positive and negative with no change to velocity when set in the middle (12 o’clock).

There are two curves to choose from: **Sine (S-Curve)** and **Exponential**. These are alternated by pressing the S-Curve button.

A **Sine (S-Curve)** allows the user to either suppress the low velocity while increasing the high velocities or vice versa while keeping the middle velocities relatively untouched.

An **Exponential** velocity curve allows the user to either suppress the low velocity while increasing the high velocities or visa verse.

Users wishing for visual feedback of the curves can check in Kontakt’s Mapping editor while playing (pressing the wrench in the top lefthand corner of the instrument) or record MIDI into a DAW such as Logic, Cubase or Pro Tools.

12. Touch Response: (same as on the Main page) is the dynamic range determined by velocity. Touch Response determines how The Halfling adjusts the sample volumes for the upright piano mics to incoming velocity. At 100%, The Halfling will respond exactly like it was sampled. Some users may find this too dynamic. 89% 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.

Touch response only adjusts the volume of the upright piano samples, channels 1 thru 4, and has no effect on Spells.

13. Pedal Options:

Continuous Pedal determines if The Halfling responds to continuous sustain pedal messages. Most sustain pedals are simply a switch that turns the sustain on or off, but some piano midi controllers have sustain pedals that can send continuous midi messages through the entire range of the sustain pedal like a real piano. The Halfling has the ability to respond to continuous pedal messages to allow for half pedaling and other piano effects from the use of partial pedaling. An example is if you play a note with the continuous sustain pedal held half way down, the sustain will be less length than if the sustain was fully depressed.



Continuous Pedal should be left on, even if you do not have a continuous sustain pedal, because it is required to round robin the sustain pedal noises. For most users, there should be no reason to turn it off.

Production Tip: You can manually adding continuous pedal messages to a sequenced part if you do not have a continuous sustain pedal.

13. Pedal Noise: Authentic damper pedal samples.

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 thump sound when released.

There is an on/off switch for the pedal noise that also unloads the samples when off. The pedal noise samples are very small compared to the rest of library, so they will load quickly.

Most workstation keyboards do not have this sound! But it is the easiest way to add realism to your sampled piano.

Every microphone perspective has its own pedal noise samples. There are nine pedal down and eight pedal up noise samples that are played in round robin.

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 17 notes.

Turning off the Pedal Noises purges the samples from memory.

The volume control for pedal noises controls the volume of all microphone perspectives equally. The pedal noise samples are linked to the mixer. So, only the pedal noises for the microphone perspectives that are active will sound.

Advanced control: If you want to control the volume of the pedal noises separately, the volumes of the groups can be changed in the group editor within Kontakt within the instrument editor. Another less complicated option is to use another instance of The Halfling for a single mic perspective and adjust the pedal noise for that mic individually.

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.

Control clicking on the pedal noise volume will allow you to assign any MIDI continuous controller number to it. We suggest assigning it to a control pedal so that the volume of the pedal noise can change throughout a performance!

14. Sympathetic Resonance:

Sympathetic Resonance adds harmonics to the sound the same way a piano does when a note is held and another note is struck. This naturally occurs on notes that are struck an exact fourth, fifth, octave etc. above a held note and a couple of notes below a struck note. **Sympathetic Resonance can add warmth and realism to The Halfling, 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 or not heard.

15. Key Up: Key Up controls the volume of the keyboard action sound as a key is released (the hammer returning). It is only triggered when the pedal is down and a key is released. This is a subtle sound, but it adds that extra touch of realism. You might be asking: “Why only when the pedal is down and when a key is released? Why not when the pedal is off as well?” These are good questions! The Key Up sample is a natural part of the Key Release samples.

In a busy production or song, the Key Ups may not be heard. There is a button to turn the Key Ups off and to unload them from RAM. When turned back on, the samples will automatically be loaded again. Key Up does tend to use plenty of CPU and polyphony!

15. Key Release: Key Release is the volume control for samples triggered when a key is released or when 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 vary in how loud they like the key release samples. The key releases, like the rest of the instrument, have been professionally scripted (programmed in Kontakt) to sound as realistic as possible. 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 may not be available in some keyboard workstations, digital pianos or other piano sample libraries.

*****NOTE***** The Halfling was professional scripted to have a smart release for the pedal samples. Release samples are only played on the notes that are not sustained. When a note is struck, the pedal is depressed and the note is released, it will still sustain. But... when the pedal is released, a proper release sample is played.

Page 3: ENCHANTMENT

The ENCHANTMENT page is where all the fun begins! Here you can select the different sample sets, called Spells, and choose how each layer is processed.

16. MAIN UPRIGHT Layer: The MAIN UPRIGHT layer has an ON/OFF button that turns all four microphone perspectives on or off. When turned off, all of the upright piano mics are turned off. When turned on, only the mic perspectives that are turn on on the SETTINGS page will be active. The Main Upright Layer is just a master on/off for the upright and a master edit for the controls when the EDIT button is selected. With EDIT on, the controls show the parameters for the Upright layer.



17. SPELL Layer: There are three Spell layers that can be turned on and off individually. The EDIT button on each shows the editing parameters for that Spell. Only one layer can be edited at a time.

SAMPLE SET: Allows for the selection of the different sample sets. The Sample Sets are slightly different for The Halfling.nki, The Halfling Reverse.nki, and The Halfling Sings.nki. There are 12 Spells available per layer for a Sample Set total of 36 Spells plus the upright piano for each .nki instrument.

18. Filter Section: The Filter Section has typical 24dB 4 Pole Low Pass Filter and High Pass Filter with cutoff frequency and resonance.

19. Amplifier Envelope: The AHDSR is again typical with Attack, Hold, Decay, Sustain and Release. The Upright Piano layer does not allow for AMP Envelope control as these are needed for the continuous pedal section.

20. Envelope Section: The Envelope Section controls pitch and the filters. The knobs on the left of the section control the amount as either forward or inverse envelope. So 12 o'clock on the knob is no change. Moving from 12 o'clock to the right brings positive envelope amount. To the left of 12 o'clock gives amount in inverse values.

21. LFO Section: If you know subtractive synthesis, this will feel familiar. The LFO section has a select section at the top of the LFO that determines what LFO section the controls are for: LFO Pitch, LFO HPF etc.

22. Cast Spells Section 1: Effects divided as follows:

Cast Morph: Phaser

Cast Repeat: Delay

Cast Disintegrate: Bit Crusher

Cast Distort: Distortion

Cast Warp: Chorus

23. Cast Spells Section 2: Cast Spin: Leslie effect.

Page 4: MASTER FX

The values for most of the controls on the Master FX Page are only viewable once a control is clicked and/or an adjustment is made.

Each section of the Master FX has its own **On/Off button** to the left of the section's title.

24. Tape Saturation: The Tape Simulation can add warmth and a bit of compression to the sound. Too much can add distortion either in a good way or a bad way!

25. Master EQ: The Master EQ adjusts the equalization of all the microphone perspectives. If, for example, the overall sound is too bright, just use the HF EQ to remove some of the high frequencies. The Master EQ is based

off the same Solid G EQ as the Mixer Page channel EQ

26. Transient Designer: The Transient Designer adjusts the attack and sustain of samples by using volume control similar to a compressor. Anything from naturally stronger attacks to aggressive fake attacks that may work in electronic styles of music can be achieved. Most classical purists will avoid the Transient Designer.

27. Master Compressor: The Master Compressor is used across all layers at once. It can be used to smooth out the dynamic range or used for aggressively compressed sounds. It is the same type of compressor as on the individual mixer channels. A few of the presets use the Master Compressor for the pop sounds and such.

28. Master Limiter: The Master Limiter is similar to the Master Compressor except that it has a fix high ratio for limiting. A limiter has many functions, but one such function is to control the loud peaks or transients of the piano samples while raising the sustain or lower volume notes. When set appropriately, limiters can retain much of the dynamic range while also increasing the overall volume.

29. Master Reverb Send: The Master Reverb Send routes a portion of the main output to the reverb section as set on the Main Page or in the Reverb section on the Mixer Page. Having a Master Reverb Send is in some cases faster and easier to handle than 7 separate sends, but lacks some of the control of individual sends.

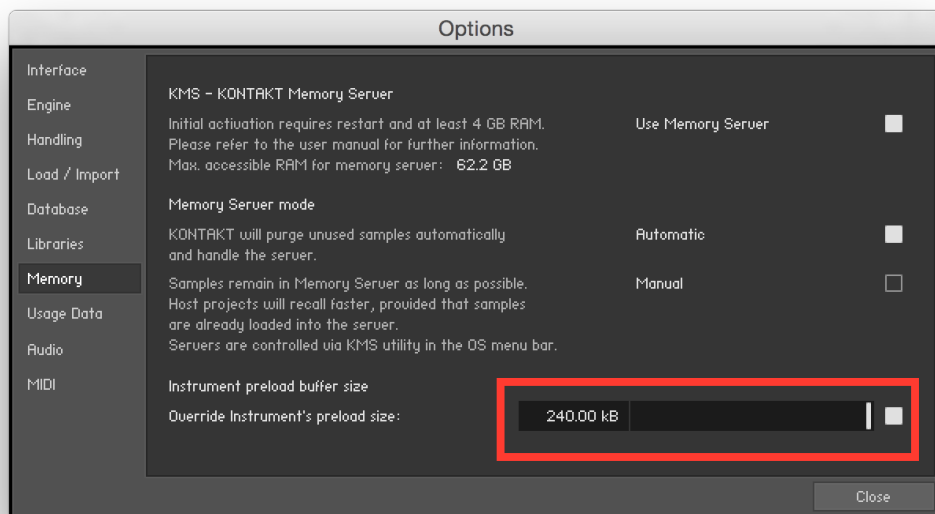


Performance Expectations on Different Systems

The Halfling, with all four microphone perspectives on, can be taxing on some systems.

Some hints for better piano performance are:

1. Use a solid state drive. This is pretty much a must.
2. Assign more memory to Kontakt under Preferences Memory. Choose Override Instrument's preload size and choose a setting higher than 64 kB. This will load more into RAM



and take the load off of your drive. The 240 kB setting shown allows us to run The Halfling off of a NAS drive stored in another room!

We anticipate that recent top-of-the-line computers with SSD drives with 16 GB or more of RAM will easily be able to play all four microphone perspectives with all options on.

All computers with 8 GB or more of RAM should be able to offline render files with no major concerns.

SSD vs Raid: Our tests showed that both RAID and SSD performed about the same on an eSATA connection. An internal SSD at 6GB/s will likely have twice the performance of a Raid system. We recommend SSD drives for serious users as the cost to performance is usually greater than Raid systems.

Credits:

The Halfling could not have been completed without the support and dedication of many talented people! I am very fortunate to have worked with such an excellent team. Thanks again!

Concept, Editing, Sampling, Programming: Jason Chapman

Graphic User Interface Layout: Scott Kane

Graphic User Interface Design: Koko Nunez Gomez

Kontakt Scripting and Programming: Adam Hanley

Throat Singer: Keenan Lachance

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