Hideaway Studio

The Cosmic Music Box

Installation Guide & User Manual

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Hideaway Studio Presents The Cosmic Music Box

The project started off by acoustically recording 21 tine actuations from a disassembled music box mechanism placed on a wooden sounding board using both conventional condenser and contact microphones. The sound of the clockwork motor and air brake mechanisms was also captured. A synthesized halo effect was created to blend with the tines by capturing several beating sine waves from a 1960's tube based dual tone generator which were fed through the filter stages of a Minimoog with the filter in near resonance.

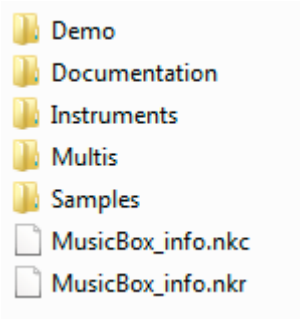
A user interface was devised to implement a randomised delay feature between two groups of acoustic tine instruments to create a plink effect and to blend the halo and motor effects together to form The Cosmic Music Box.

A second page was developed to permit the user to dial in various effects such as chorus, phaser, delay and reverb…

Installation

Installation is straightforward. **The Cosmic Music Box** requires Kontakt version 4.2.4 or higher. Once the .zip file has been downloaded unzip the archive making sure the original directory structure is retained.

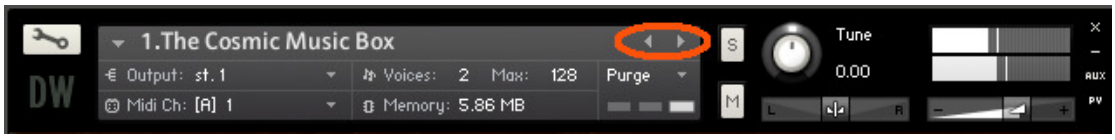
This should result in a folder called Cosmic Music Box containing the following folders:



To run the instrument simply load up one of the .nki files in the Instruments folder. You will also find a basic template in this directory to use as a starting point for new instruments.

Instant Gratification

You can easily run through each of the 5 example instrument patches (.nki) in the instruments folder by clicking on the small arrows to the right of the instrument name.



Hopefully by loading up the example patches you will be able to see how they have been constructed in the instrument and can be used as starting points for new sounds which can be saved under new file names.

Programming the The Cosmic Music Box

Naturally the example instruments packed with the library can be used as is but where the fun starts is having a go dialling in your own patches into the instrument.

The Tine Section

The instrument features two sets of tines designed to be played together or in quick succession to create a plink effect. When the **PLINK DELAY** control is set to the fully anti-clockwise position the two tine groups are played in unison. The lower tine group always sounds immediately on key-on. The further the control is set clockwise the longer the delay before the upper tine group sounds following key-on. The further clockwise the **PLINK RANDOM** control is set the more random variation in the delay is present. This adds a human feel to the sound. The **PLINK LEVEL** sets the volume of the tines in the overall mix.

Please note that when using longer **PINK DELAY** settings the delay may be *overridden* on a note by note basis by playing in a staccato style (very short notes). A more realistic effect may therefore be created by altering the note length from note to note.

The Envelope Controls

The **A**ttack**, D**ecay**, S**ustain and **R**elease controls offer basic envelope control for modulation of the amplitude dynamics (VCA). The further clockwise the **ATTACK TIME** control is moved the more gradually the sound builds up. The more the **RELEASE TIME** control is moved clockwise the longer it takes for the sound to decay after the note is released. The **DECAY TIME** control determines how quickly a sustained sound diminishes with time. The more clockwise the setting, the longer it takes to decay. Very rapid settings (anti-clockwise) will produce plucked or staccato effects and slow settings (clockwise) will produce a swelling effect. The **SUSTAIN LEVEL** control determines the volume at which the sound will rest during sustain once the decay portion of the envelope has completed.

The **VELOCITY SENSITIVITY** control determines how much the overall sound level is influenced by the velocity of the key played. The more clockwise the setting the more the amplitude is sensitive to key velocity.

Please note that the instrument makes use of velocity controlled attack modulation. This means that the **ATTACK TIME** parameter is automatically lowered the harder the note is played. This is a means of improving the playability and expression of a sound especially in a live performance. It can be used to good effect by setting the attack a little longer than first expected.

The Halo Section

A warm synthetic halo effect can be blended with the tine section. The **HALO LEVEL** sets the volume of the halo within the overall mix. There are separate envelope controls for the halo effect along with dedicated **VELOCITY SENSITIVITY**.

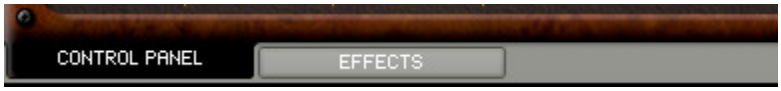
The LFO and Tone Controls

The **LFO RATE** can be altered and routed in varying degrees to modulate the pitch and/or amplitude. The more clockwise the **PITCH MOD** control is turned the deeper the pitch modulation effect with be. More gentle settings will create a vibrato effect. The more clockwise the **AMP MOD** control is positioned the deeper the amplitude modulation with be. This may be used to create a tremolo effect.

The **TONE** and **SPREAD** controls permit the user to cycle through a vast array of tone colours in one simple control rotation. As well as playing a part in shaping new sounds this can be particularly useful in the process of placing the instrument in a complex mix.

The Effects Section

Click on the Effects tab at the bottom of the main instrument page to select the effects page:



The effects section comprises of three basic types of effects. Each of the effects are chained in series and can be disabled by toggling the switch at the bottom of each FX pane. A yellow light will illuminate when the FX is on.

Modulation Effects

The GUI offers two basic forms of modulation FX:

The **Chorus** is a digital simulation of a classic stereo analog chorus (minus the noise!). The **CHORUS RATE** control determines how rapidly the chorus is modulated. The **CHORUS DEPTH** control determines how deep the chorus modulation effect is and the **CHORUS AMOUNT** control sets the amount of the effect to be mixed with the dry signal.

The **Phaser** is a digital simulation of a classic analog phaser. The **PHASER RATE** control determines how rapidly the phaser is modulated and the **PHASER DEPTH** how deep the modulation effect is. The **PHASER AMOUNT** control sets the amount of the effect to be mixed with the dry signal. The **PHASER FEEDBACK** control determines the amount of signal fed back to the input. At high levels it creates a sweeping resonant effect.

Delay

The delay section comprises of delay with feedback and damping. The **ECHO TIME** control sets the delay whereby turning the control clockwise increases the delay time. The **ECHO FEEDBACK** control sets the amount of the signal from the delay that is fed back to the input. The further this control is turned clockwise the more the input signal is recycled thus creating dramatic repeating and sustain effects. The **ECHO DAMPING** control determines how the high frequency content of the delayed signal decays with time. The **ECHO AMOUNT** control determines how much of the effect is mixed in with the dry signal.

Reverb

The reverb utilises the latest convolution technology to digitally simulate the reverberation of a physical or simulated acoustic space.

Click on the yellow light to select the following reverb types:

COSMIC A huge reverberation space
LARGE A large natural hall effect
HALL A medium sized hall
ROOM A small soom
PLATE A classic plate reverb
SPRING A vintage spring line reverb

Use the **REVERB SIZE** control to set the size of the reverberation space and the **REVERB AMOUNT** control to set the amount of the effect to be mixed with the dry signal.

Saving Your Own Patches

All of your creations can be saved as .nki instruments simply by using the **save as** function by clicking on the **files** icon in the main Kontakt control pane.

Remember that if you edit an existing sound you must save it under a new name otherwise you will overwrite it!

Credits

Dani Wilson (Hideaway Studio)
Sound Capture & Design, Example Patches & Instrument Demo

Stephen Howell (Hollow Sun)
UI Concept, GUI Design & Graphics, HS Example Patches

Mario Krušelj
GUI Script

A very big thank you to Stephen and Mario for making this project possible.

For more information and many more releases for Kontakt by Hideaway Studio please visit:
www.hideawaystudio.net

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