Virtual Chinese Transverse Flute
for Electronic Wind Instruments or Keyboards

Created by Gino Chimenti

Virtual instrument for KONTAKT
INTRODUCTION

The Suonopuro New Dizi is a very expressive and realistic virtual instrument emulating the dizi, a Chinese transverse flute made of bamboo. This virtual instrument is not an upgrade of the previous Dizi E-Flute by Suonopuro, but a completely new instrument, using a new set of samples and a different way of working. Thanks to a new complex algorithm, the New Dizi is more realistic and flexible. Now it has got many more features: 6 octaves of range, 3 levels of samples, the flutter and bending techniques, the “hold 1st note” and “play on release” modalities and more. Like all the virtual instruments by Suonopuro, it can perform two configurable parallel voices as used by great EWI player Michael Brecker. You can also use it as monophonic or polyphonic instrument.

The dizi is widely used in many genres of Chinese folk music, as well as Chinese opera, and the modern Chinese orchestra. What makes the dizi different from all other transverse flutes is the dimo, a membrane taken from the inner wall of the bamboo plant and fastened over the special hole (mokong) between the embouchure hole and the first finger hole. The dimo-covered mokong has a distinctive resonating effect on the sound produced by the dizi, making it brighter and louder, and adding harmonics to give the final tone a buzzing, nasal quality. The Mo-Cong was invented in the Tang Dynasty (618-907 AD) by Liu Xi, and he named the flute the "Seven Star Tube".

The New Dizi does not require complex configurations or problematic ways of playing. Just play your MIDI instrument as usual and the virtual flute will do the legato and staccato, crescendo and diminuendo, piano and forte, vibrato, portamento, etc.

It can be used with any MIDI controller but is specifically designed for two kinds of MIDI controllers: electronic wind instruments (like the Akai EWI or the Yamaha WX5) and keyboards.

FEATURES

- Real time automatic recognizing of legato and staccato, now with a better algorithm.
- Flutter-tonguing modality.
- Bending technique.
- 3 different ways to vibrate, all ultra-expressive and realistic.
- Convolution reverb.
- 4 round robin staccato attacks with multiple and gradual gradients from soft to marcato.
- 2 parallel voices at configurable intervals, as used by Michael Brecker.
- Polyphonic mode for keyboards and, for the EWI, sustain mode and hold 1st note mode.
- Editable Dynamic Range.
- Perfect Crossfade System, to play realistic crescendo and diminuendo, with 3 levels of samples.
- Some options to customize the sound.
- Glissando.
- 6 octaves range. The range was extended using the best pitch shifter plug-ins. The sampled dizi was tuned in C.
- Play on release mode: When you release a note, the software plays the previous note still pressed.
- An option to disable the “dimo”, for a mellow version of the virtual dizi.

(dimo-covered mokong)
SYSTEM REQUIREMENTS

NI Kontakt 4.1.1 or higher FULL retail version. It is NOT compatible with Kontakt Player. You can open and run the Suonopuro New Dizi in Kontakt player just for 15 minutes. After that, the demo period of the player times out and you have to re-start and reload the library.

PC: Windows XP, 7 or higher, Intel Core 2 Duo or AMD Athlon 64 X2, 2 GB RAM, low latency audio driver.

Mac: OS X 10.7 or 10.8 (latest update) or higher, Intel Core 2 Duo, 2 GB RAM.

Any kind of MIDI controller.

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INSTALLATION

- Download and unzip (unrar) the S_NewDizi.rar file into a folder of your hard-drive, using the password that was notified.
- Keep all data within said folder. Do not move the audio files to another folder, otherwise Kontakt will search for files.
- Launch Kontakt 4.1.1 or a higher version.
- Load the Suonopuro New Dizi for E.W.I. or for keyboard from the file menu.
- Select the desired channel and options and play.
- If you are using the EWI version, make sure your instrument transmits the MIDI velocity and breath control data, both controlled by your breath strength.
- If you use a different MIDI controller, load the keyboard version and set the Dynamic and Glide controller you need. For more details, see page 6 of this manual.
- If you are experiencing latency issues or unexpected glitches, please adjust the buffer size from the driver configuration menu of your sound card.

P.S. You CANNOT add any third party libraries to show up them in the Kontakt browser, like you do normally with NI libraries such as Akoustik Piano, but if you want you may create a quick-load patch list. Follow the Kontakt manual instruction.
THE ELECTRONIC WIND INSTRUMENT

Version

Touch the GLIDE SENSOR BAR of your EWI to activate and control the glide. If the BENDING BY GLIDE button is on, touching the glide sensor bar you can start the notes with the bending technique. Release it to play normal staccato or legato. (MIDI-CC5)

BRILLANTEZZA BUTTON makes the sound more brilliant and incisive but less classical.

EQ is a special equalization making the sound darker.

SUSTAIN activates the polyphonic mode that sustains all the notes you play with a single breath. You can play the note G0 to activate this function.

SUSTAIN ON by HB – VIBRATO ON by HB – FRULLATO ON by HB – BENDING ON by HB – HOLD 1ST ON by HB – ARMONIA1/2 ON by HB – HOLD 2ST ON by HB – ARMONIA1/2 ON by HB allow you to turn ON and OFF their respective functions by double-clicking the HOLD BUTTON of the AKAI EWI. This EWI button sends a MIDI event cc66.

AUTO VIBRATO BUTTON puts ON or OFF the automatic vibrato, which vibrates the note you are playing in a stronger and more rapid way proportionally with the sound intensity. It is also possible to put it ON and OFF by playing note C0 (if “keyswitch on/off” button is active).

N.B. You can vibrate even by blowing, like on a real flute, or by gentle beating your teeth on the electronic wind instrument mouthpiece.

FRULLATO BUTTON enables and disables the flutter-tonguing style mode. It can be activated and deactivated via the note Do.

DIMO is useful for activate/deactivate the “dimo”, the typical membrane that gives a buzzing and resonating tone to the dizi.

KEYSWITCHES ON/OFF BUTTON is useful to prevent accidental activation of some function by playing a keyswitch note.

ARMONIA 1 and ARMONIA 2 BUTTONS activate, respectively, the second and the third parallel voice. Keyswitches = E0 and F0. NOTA1 and NOTA2 KNOBS indicate, respectively, the intervals in semitones between the note you are playing and the notes of the second and the third voices. You can set them from -24 (2 octaves lower) to 24 (2 octaves upper).

HOLD 1ST NOTE sustains the first note you play with a single breath. It can be activated via the note A0.

RIVERBERO FX BUTTON enables and disables a convolution reverb specifically designed for Suonopuro New Dizi.

FX LEVEL KNOB controls the reverb amount.

DINAMICA controls the dynamic range. By blowing, you can control the volume, the LEGATO and STACCATO, the tone and slightly the pitch. (MIDI-CC2)
**THE KEYBOARD VERSION**

**AUTO VIBRATO BUTTON** puts ON or OFF the automatic vibrato that vibrates the note you are playing in a stronger and more rapid way proportionally with the sound intensity. It is also possible to put it ON and OFF by playing note C0. If this option is OFF and **VIB BY AFTERTOUCH** is on, you can control the amount of vibrato through the channel **Aftertouch** that is the amount of force on held-down key. You can also do the vibrato by slightly swing the pitch bend lever. The patch is programmed to always obtain a realistic vibrato effect.

**DINAMICA** controls the dynamic range. Choose how to control the dynamics (and slightly the pitch) from the drop down menu Dynamic Control.

**KEYSWITCHES ON/OFF BUTTON** is useful to prevent accidental activation of some function by playing a keyswitch note.

**FRULLATO BUTTON** enables and disables the flutter-tonguing style mode. It can be activated and deactivated via the note Do.

**EQ** is a special equalization making the sound darker.

**VELOCITY=ATTACK BUTTON** allows you to control the attacks of the notes, from soft to marcato, by the speed of the key-press.

**ARMONIA 1 and ARMONIA 2 BUTTONS** activate, respectively, the second and the third parallel voice. Keyswitches = E0 and F0.

**NOTA1 and NOTA2 KNOBS** indicate, respectively, the intervals in semitones between the note you are playing and the notes of the second and the third voices. You can set them from -24 (2 octaves lower) to 24 (2 octaves upper).

Setting **NOTA1 to zero** and **ARMONIA1 on** you will activate the **POLYPHONIC MODE** that sustains all the notes you play with a single breath.

**DIMO** is useful for activate/deactivate the “dimo”, the typical membrane that gives a bazzing and resonanting tone to the dizi.
**DYNAMIC CONTROL MENU** allows you to select how to control the dynamic, from pp to ff. It also affects the timbre and slightly the pitch of notes. **THIS IS THE MOST IMPORTANT SETTING.** You can choose between:

- cc1 Modulation Wheel
- cc2 Breath Controller
- cc11 Expression Pedal
- Any configurable MIDIcc slider, knob or sensor

If you choose “**0 Velocity**” the dynamic will be controlled by the speed of the key-press, as a common keyboard patch, but you can no longer do crescendos and diminuendos, and the instrument will become less expressive.

In the **BENDING & GLIDE** menu you can choose how to control the **portamento** and the **bending effect**, that starts the notes with a light initial glissando. You can also hold down the note G0, shown in green on Kontakt, to perform the bending and the note F#0 to play a glissando between two legato notes.

**POLYPHONIC** lets you play multiple notes simultaneously. If you choose “Velocity” in the dynamic control menu, the Suonopuro New Dizi will play in the way of a common keyboard.

When you play in the monophonic mode, if you release a note, the software will play the previous note that you are still pressing.

**RIVERBERO FX BUTTON** enables and disables a convolution reverb specifically designed for Suonopuro New Dizi. **FX LEVEL KNOB** controls the reverb amount.

**BRILLANTEZZA BUTTON** makes the sound more brilliant and incisive but less classical. **B. LEVEL KNOB** sets the brillantezza effect amount.