

HEPHAESTUS SOUNDS

ITALIAN CONCERT ORGAN

User Manual v1.0 - ENGLISH



HEPHAESTUS SOUNDS

1. Introduction
2. Requirements & features
3. How it looks
4. Basic controls
5. Advanced controls
6. Special controls
7. An instrument for everyone
8. Voice list
9. Special thanks



Photo by Giampiero C.

HEPHAESTUS SOUNDS

1 - Introduction. “Study and research on sampling this great instrument take two years”, says Francesco Massa, Hephaestus project creator. “The first attempt to sample Italian organ was Organissimo (2013), but trying to make it sound realistic and similar to the real organ sacrificed polyphony and several system resources. The second try, carried out in early 2014, was Pipe Festival, created by sampling combined ranks to capture harmonic texture and sound, saving system resources. This method, however, penalized users who wanted to try to combine single ranks and the reverb still was too unrealistic. It was necessary to sample something new”, says Francesco.

After the experimental sampling of the "Mascioni"'s organ into Cremona's Cathedral (Italy), Hephaestus travels to Bologna where he discovers a small great organ built in 1972 by m° Franz Zanin, guarded by m° Alessandra Mazzanti.

The instrument has 2350 pipes and 37 registers distributed over 3 manuals and a pedal. Impressed by the massive sound of the instrument despite the small size and observed the perfect location conditions, Hephaestus starts to sample it, carried out with the latest techniques studied in the meantime.

Then Italian Concert Organ arises, a virtual instrument that combines samples of individual ranks and combinations, in addition to an exceptional sound engine able to restore harmonics, environment, mechanical noise and even more, in a completely customizable way. During the manual you'll see how this fascinating instrument works, and how it's designed for both professional and amateur musicians.



Photo by Giampiero C.

HEPHAESTUS SOUNDS

2 - Requirements & features.

Minimum requirements detected according to tests are:

- CPU: Intel(R) Core(TM) i5-2520M @2.5GHz or equivalent
- RAM: 2GB
- CONTROLLER: 61-keys MIDI keyboard controller and mouse
- SPACE ON HARD DRIVE: at least 1GB free
- OS: Windows or Mac according to Kontakt
- SOFTWARE: Kontakt v5.2.1 or newer (not Kontakt Player!)

Recommended requirements detected according to tests are:

- CPU: AMD FX-8350 4.0GHz or equivalent
- RAM: 4GB
- CONTROLLER: 76-keys MIDI keyboard controller or virtual organ console
- SPACE ON HARD DRIVE: 2GB or more
- OS: Windows or Mac according to Kontakt
- SOFTWARE: Kontakt v5.2.1 or newer (not Kontakt Player!)

Features:

- Sample resolution: 48KHz 24-bit Stereo
- 32 patterns (16+16), from single ranks to combinations
- 7 sound controls
- Key-off noise, airflow and customizable impulse reverb
- It's possible to turn off the airflow and disable the internal Kontakt FX engine
- 4 modes: Touchscreen, Footpedal, Multicombo and Multichannel
- Total instrument size: 440MB (compressed)
- Stunning 3D GUI by Divergent Audio Group
- Average polyphony consumption during performance: 20 sounds
- Max polyphony in single mode: 64 sounds
- Max polyphony in multi mode: 512 sounds
- Works with Kontakt v5.2.1 or newer, but only 15 minutes with Kontakt Player

HEPHAESTUS SOUNDS

3 - How it looks. This is the GUI:



4 - Basic controls.

- Switches from 1 to 16 let the user to select a pattern (single rank or combination). The name is shown in the middle on the first red line. Using the **V (Variation)** control it's possible to switch between other 16 patterns. The pattern list (Voice list) is on the next chapters.

So, there are 32 total patterns.

HEPHAESTUS SOUNDS

- **FX (Effects)** control disables internal Kontakt engine effects (from “Source” to “IR Size”). This feature is very useful to let the user apply to the instrument external effects on the pure sound of the organ, also saving that amount of CPU otherwise spending to manage the internal panel of Kontakt.
- **B (Blower)** control turns on/off the airflow noise. It uses only 1 polyphony sound.

5 - Advanced controls.

- **SOURCE** moves the organ near or far from the user. Center position (default) is the original. Great to know how the sound is listened by the spectators or the organ player!
- **BEAT** makes the harmonic restoration, lost on sampling process. On center position (default) harmonic restoration makes the sound more natural.
- **IR LEVEL** manages the impulse reverb volume. On center position (default), the reverb should be present in the right quantity and non-invasive.
- **IR ATTACK** manages the delay of the impulse reverb. Center position (default) is based on the original sample.
- **IR SIZE** manages the size of the environment. Center position (default) is based on the original sample.
- **TUNING** manages the main pitch. Center position (default) is the original (about 445Hz).
- **COLOR** simulates opening or closing of the expression case. 3 positions: center (default), high (open, bright) and low (closed, soft).

6 - Special controls (not available on Touch mode).

- **S (Store)** saves the selected pattern into the selected memory slot (1-8).
- **SLOT (Memory)** selects the memory bank to store a pattern.
- **C (Clear)** deletes the content of all the slots.

HEPHAESTUS SOUNDS

7 - An instrument for everyone.

Italian Organ Concert has been developed in 4 different modes, each particularly suitable for different situations and equipment.

- **Touch Mode.** Recommended for all owners of single MIDI controller with a touchscreen. The controls are optimized for touch. Pressing and releasing the sustain pedal you can select sequentially the 16 patterns, while the Modulation controller switches to the other 16 patterns. In the middle is displayed the name of the pattern.
- **Foot Mode.** Especially developed for all owners of single MIDI controllers that have a common monitor and scroll through the chosen patterns without taking hands off from the keyboard. With this mode, the user can store up to 8 patterns and call them by pressing and releasing the sustain pedal. Example: for my song I need sequentially the patterns 2, 5, 6 varied, 12, 15. For this purpose, I select the first (2). Once selected, I press S to store it in SLOT 1. Then I press the SLOT button and I see SLOT 2, then I'm going to choose the second pattern (5) and hit S to save it. Now we press SLOT button again to move to the SLOT 3 and memorize the third pattern (6 with V). And so on. Once done, you just press and release the sustain pedal to cycle through the stored patterns, in a continuous loop. You can store ONLY the pattern numbers and NOT the advanced settings like reverb. At the center is displayed the name of the selected pattern in the first red line, and the next pattern is in the second red line. The C button erases everything that has been stored.
- **Multi Combo Mode.** Developed to combine the patterns. It's possible to combine up to 8 patterns, all on the same channel. It is as if the instrument was opened 8 times, each of which is customizable.
- **Multi Channel Mode.** Developed for all owners of virtual organ console with no more than 3 keyboards and a pedal. It's possible to combine up to 2 patterns with every controller. The keyboards have to be set on channels 1, 2, 3 and the pedal on channel 4. However, the channels are still editable from the Kontakt interface.

HEPHAESTUS SOUNDS

8 - Voice list.

1. Flauto a cuspidè 8	>>>VAR>>>	Flauto a camino 8
2. Principale 4	>>>VAR>>>	Principale 8
3. Oboe 8	>>>VAR>>>	Cromorno 8
4. Tromba 8	>>>VAR>>>	Tromba 8, Pedale
5. Fagotto 16	>>>VAR>>>	Fondi 8
6. Richiamo neoclassico	>>>VAR>>>	Ance leggere
7. Contrab.16 & Ottava 8, Ped.	>>>VAR>>>	Contrab.16 & Bordone 8, Ped.
8. Ottava 4, Positivo	>>>VAR>>>	Ottava 4, Grand'organo
9. Decimaquinta 2, Positivo	>>>VAR>>>	Decimaquinta 2, Grand'org.
10. Principale 8 & Voce umana	>>>VAR>>>	Cornetto
11. Ripieno, Positivo	>>>VAR>>>	Ripieno, Grand'organo
12. Ripieno, Cassa Espressiva	>>>VAR>>>	Ripieno, Pedale
13. Grande Ripieno 1	>>>VAR>>>	Grande Ripieno 2
14. Grand Jeu	>>>VAR>>>	Plein Jeu
15. Ance & Fondi	>>>VAR>>>	Organo Pleno
16. Tutti, Grand'organo	>>>VAR>>>	Tutti, Unione



Photo by Giampiero C.

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9 - Special thanks. Special thanks to m^o Alessandra Mazzanti for the great courtesy and kindness shown allowing us to sample this instrument at the best. Thanks also to friends Andrea and Giampiero for help and management. Thanks to St. Anthony's church, Bologna (Italy). Thanks to Divergent Audio Group for the beautiful graphical interface.

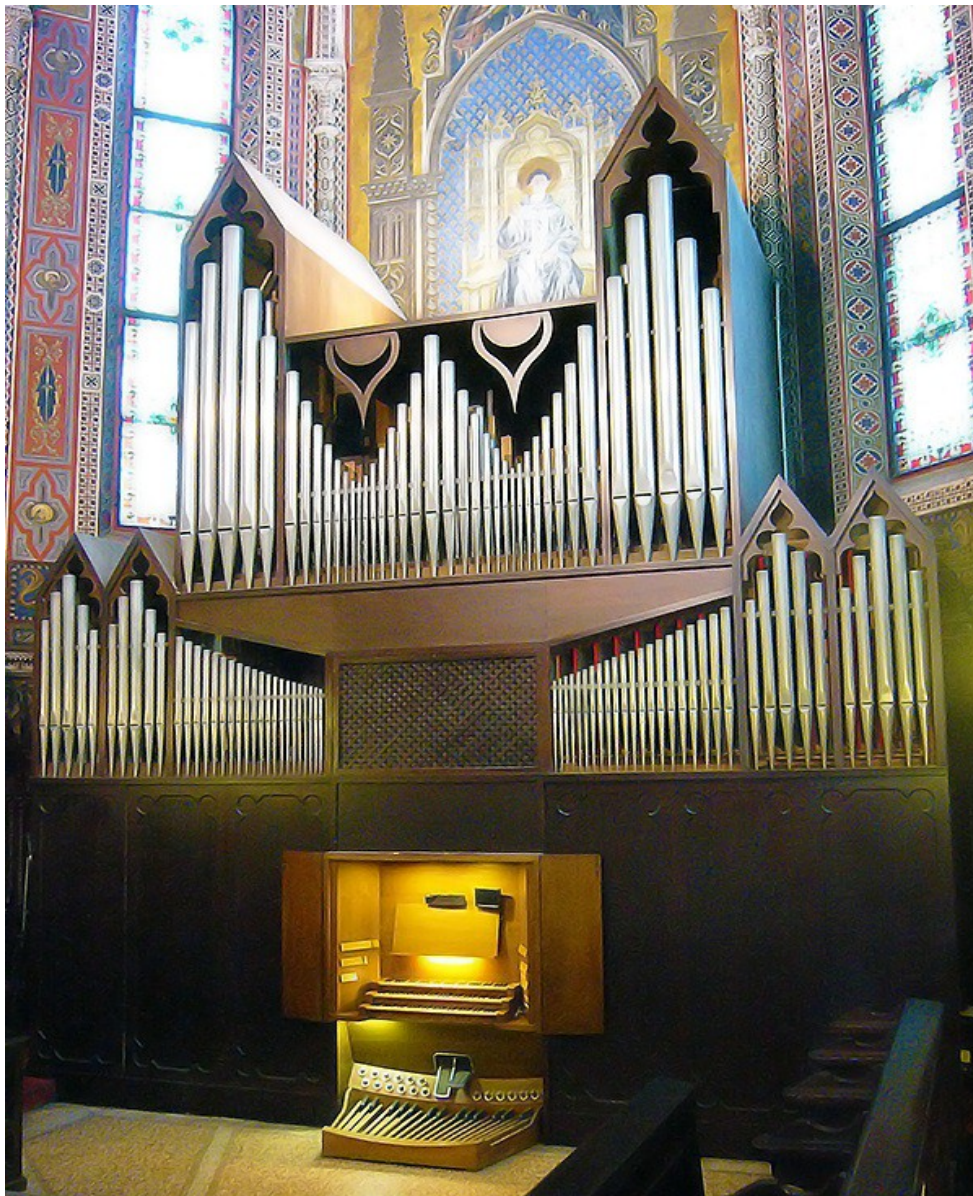


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