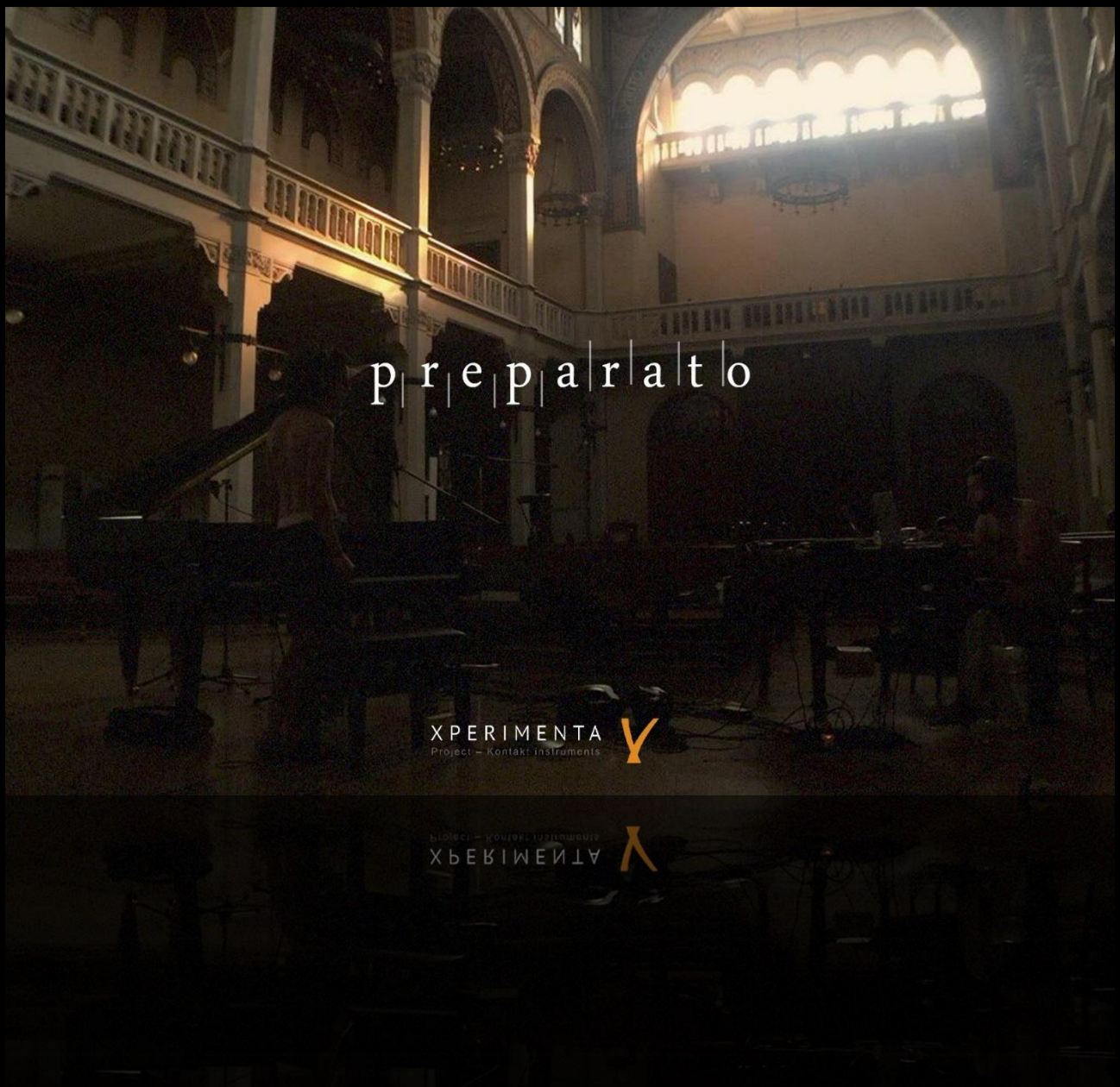
preparato
XPERIMENTA
Project – Kontakt instruments

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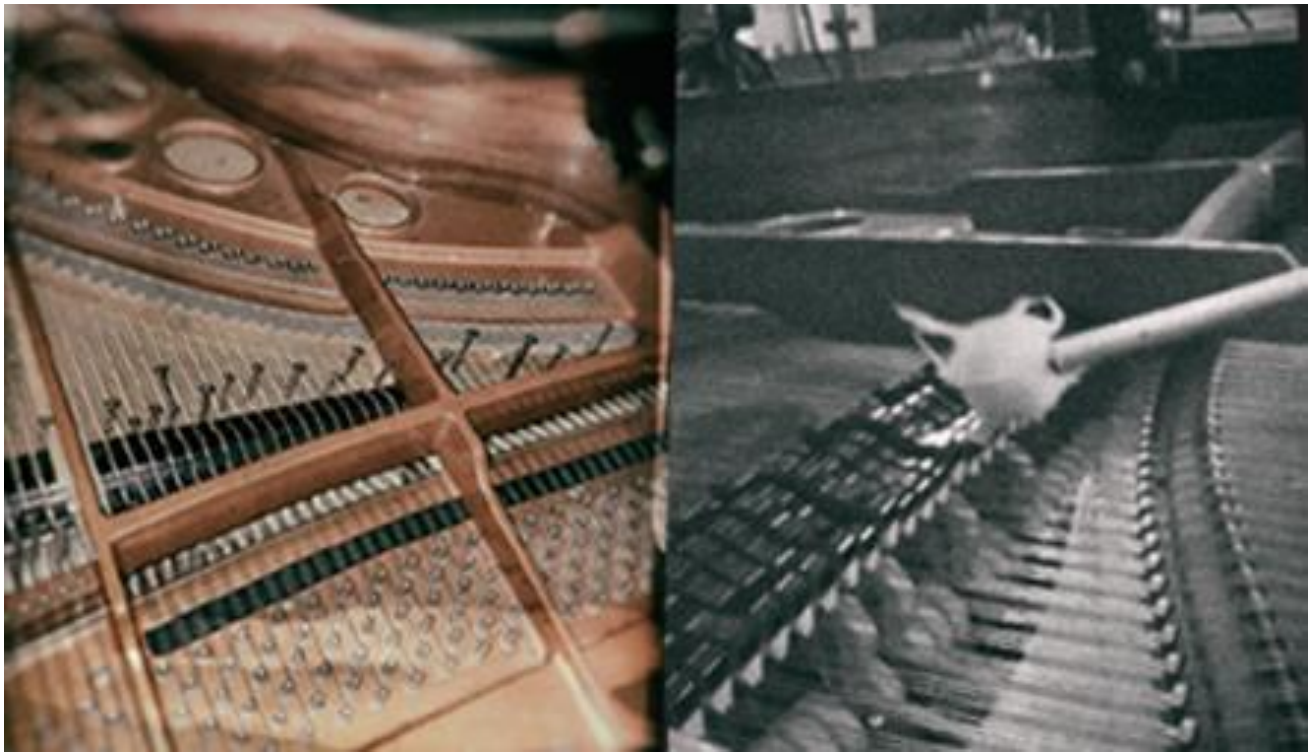
“A “Prepared piano” is a piano that has had its sound altered by placing objects (called preparations) on or between the strings”

John Cage

We sampled the piano using different techniques, from the classical preparato screws, to more creative effects like pick or bow.

ALL THE TECHNIQUES:

Sustain	Coin	Screws	Metal Chain
Pick	Metal Mallet	Metal Staccato	Soft Mallet
Felt	Brushes	Brushes Rub	Tremolo
Bow Sustain	Bow Staccato		FX



Details

Name	Dynamic Layers	Round Robin	Note
Sustain	5	No	
Coin	4	Yes	
Screws	3	Yes	Chromatic sampling
Metal Chain	4	No	
Pick	3	Yes	
Metal Mallet	3	Yes	
Soft Mallet	3	Yes	
Felt	4/5	Yes	
Brushes	2	Yes	
Brushes Rub	1	Yes	
Bow	3	Yes (staccato)	Dynamic on CC1, staccato on velocity
Tremolo	1	No	
FX	/	/	

The Church

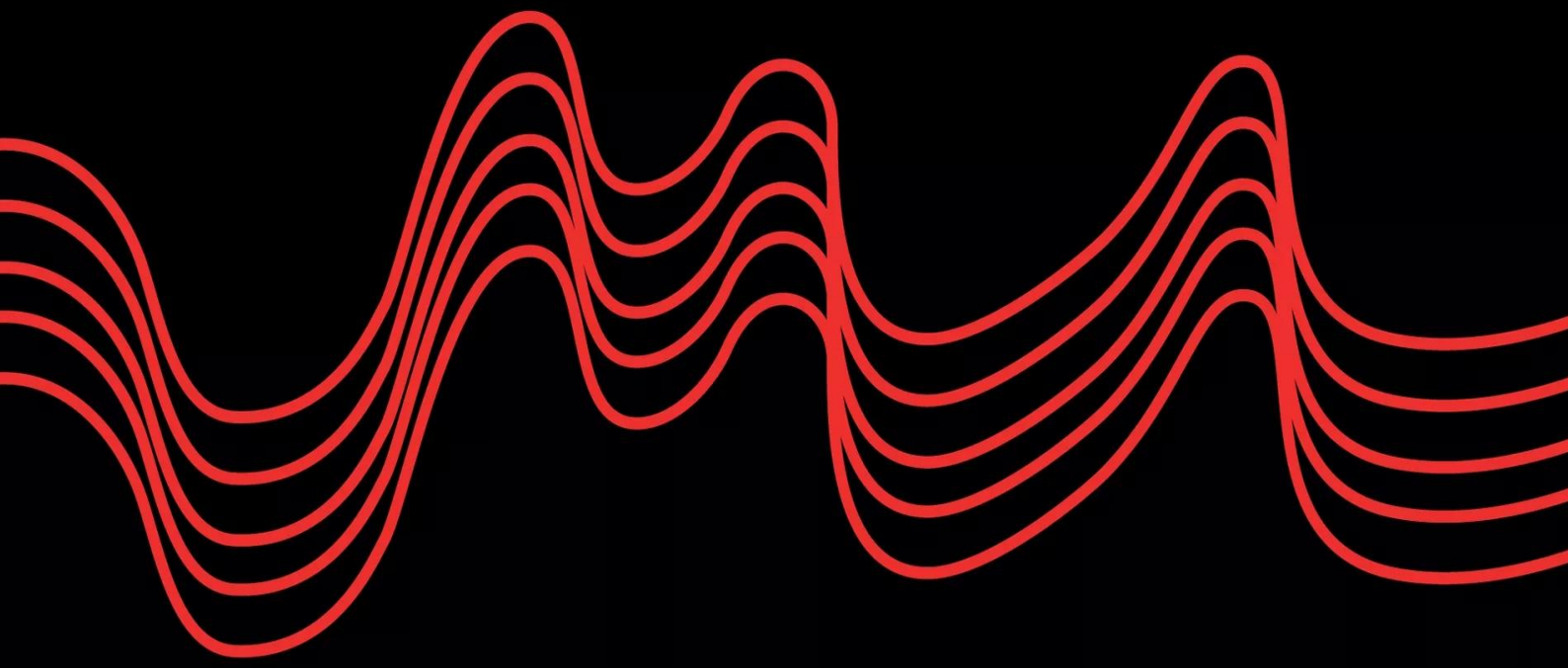
The Church where we sampled the piano is called “Chiesa Valdese di Piazza Cavour, Roma”, in one of the most central square of Rome, “Piazza Cavour” (in the photo below).

This Church always hosts concerts with little and big ensembles, and it has one of the most important pipe organ of the city, built by Carlo Vegezzi Bossi and made of 2400 pipes. They have also a Coda Shimmel piano, 208cm long, that we used for recording this library.

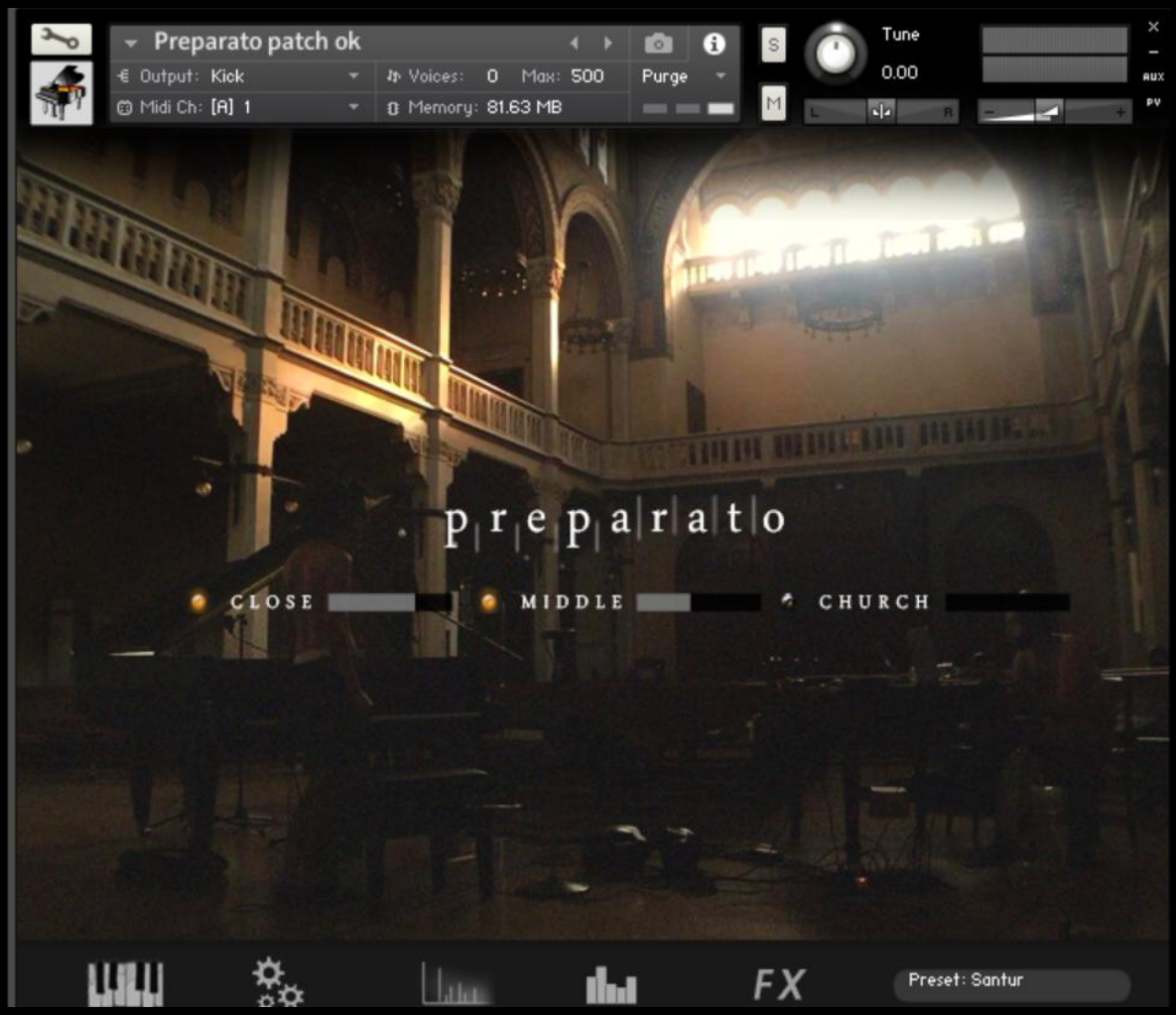
Acoustic Modeling Instruments

PREPARATO Piano is a library that works with the new “Acoustic Modular Instruments” engine, that allows you have the same power of a synth applied on acoustic samples. The layering technique and the effects that this engine offers makes a library incredibly powerful and versatile.

This new way to think the Sampling gives to the customers an incredible control of the sound. You can use a library both as an acoustic instrument or experiment more with the internal effects and parameters.



Main Page



This is the main page of the instrument.

The background is a photo made during the recoding of the piano.

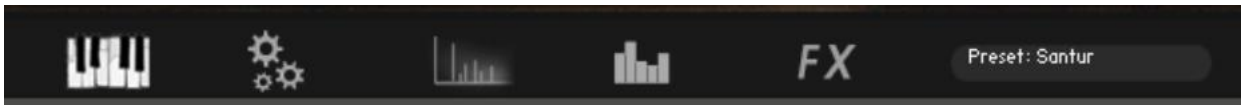
In the main page, there are three sliders: “Close”, “Middle” and “Church”. Each of them control the volume of the microphone position.

- **Close**: microphones close to the piano, wide and clean sound.
- **Middle**: microphones at about 1 meter from the piano. Really good mono compatibility, it captures well the body of the piano.
- **Church**: the microphones were placed far away from the piano. The sound is wide and captures well the reflections of the church. Great when mixed with Close or Middle.

Each microphone position has also a button:

- **Led buttons:** When the led is “on”, the samples of the microphone position are loaded. When the led is “off”, the samples are unloaded (purged) from the RAM of the computer.

Is it possible to navigate through the settings of the instrument, from this MENU banner.



1) **Keyboard**
2) **Settings**
3) **Reverb and Delay**
4) **Arpeggiator**
5) **Effects**
6) **Browser**

When one of the menu button is on, the icon will be brighter (like the “keyboard” button in the image). To go to the Main page again, just turn off all the buttons.

Keyboard Menu

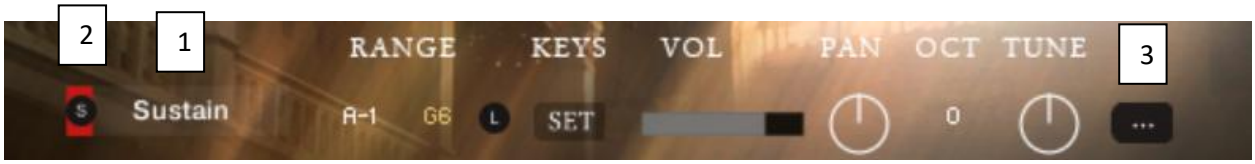
In this page you can set up the instrument.

Is possible to have up 5 different techniques at the same time.

In the image, each line is a “Layer” where is possible to insert a technique.

Each Layer is identified with a color, and it has its own settings.

Layer settings



1: "Layer Technique"

In this menu, is possible to choose the technique to apply to the layer. Is not possible to use the same technique on two layers.

Range

Here is possible to set up the range of the layer, that is the area where the layer will play. The first value is the minimum value of the range; the second value is the maximum.

In the keyboard, the selected range will have the same color of the layer.

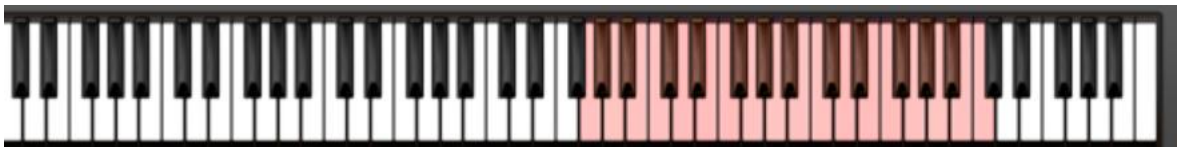


Fig: The range of the "Red Layer" will be red on the keyboard.

It is possible to combine the layers.

Fig: the Green Layer and the Red Layer ranges. When you play in the Green area, the Green Layer will play. When you play in the Red area, you will hear the Red Layer.

Each layer can have its own area.

It is also possible to overlap the Layers. When two layers share the same notes, the shared notes on the keyboard will be "Black".

Fig: the Green Layer and the Red Layer are overlapping. When playing the black keys, you will hear both the Green and the Red layer.

Range Boundary

Each Technique has a minimum and maximum boundary. This is because not all the techniques are possible to play in higher or lower areas.

If the "Range" value will reach the boundary of the technique, its color will be Yellow.

I.E. When, the maximun range value is yellow, it means that it is already at the maximum possible value.

When the Range color is Yellow, it means that the **value attaches to the maximum possible value** of the technique.

I.E The maximum range is attached to the maximum, so is yellow. If we change the technique of the Layer, the maximum range will change to the maximum possible value of the new technique.

In general, the maximum and the minimum value of the range automatically changes if they are out of the boundaries of the technique (i.e. when changing the octave).

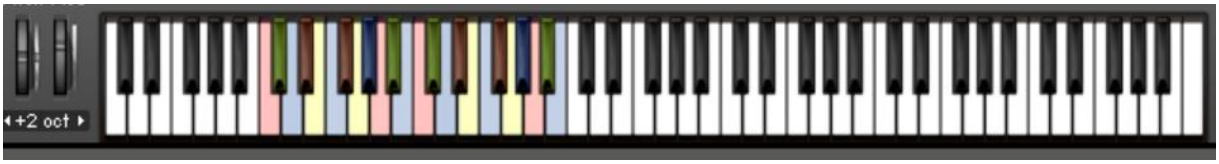
Is it possible to see the boundaries of a layer on the keyboard, by clicking "Solo" (2). The notes out of the boundaries will be black. (Fig)

Keys ("SET" button)

With this function, it is possible to assign the layers to some specific keys, independently from the range. How to do it:

1) Click "Set" to the layer that you want to set to some "independent" keys.
2) Play the keys you want to assign to the layer.
3) You can unassign a key by playing it again.
4) When finished, click "Set" again

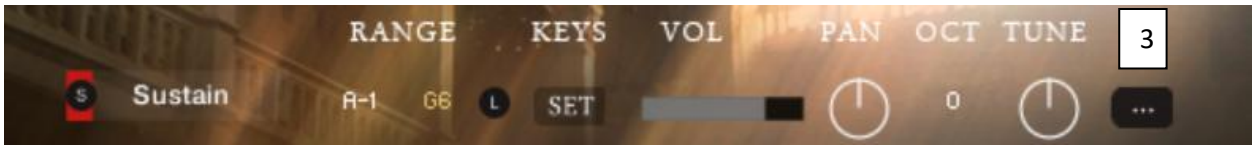
Now you assigned the layer to the keys: their color on the keyboard will change to the color of the assigned layer.



Is it possible to reset the assigned keys, by clicking on . The last after the Blue Layer will reset all the keys for all the layers.

2: Solo.

When Solo is on, you will hear only the layer that is in solo. In the keyboard, you will see only the colored notes of the layer. Is it possible to solo only one layer at time.

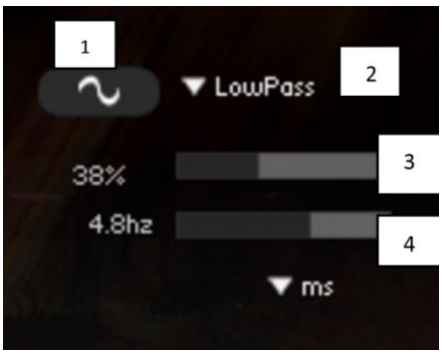


Layer Settings

- **Volume:** Set the volume of the Layer.
- **Pan:** Set the panpot of the layer.
- **Octave:** Set the octave of the Layer. -1 = transposed of -12 notes.
- **Tune:** A fine tuning of the Layer (max. range +/- fifth)
- **(3) More.** If you click this button, new settings for the layer will appear.

Layer Advanced settings

- **Filter:** An high-pass and low-pass filter.
- **Envelope:** The first knob (to the left) adjust the *Attack* of the layer; the second knob the *Release*.
- **Dist:** This knob will add a *Tube Distortion* to the layer
- **Size**. This parameter will make your instrument "bigger" or "tinier". It changes the formant of the layer. It means that, if Size if +2, the note will be transposed of +2 semitones and pitched of -2 semitones: the pitch will be the same, but the sound will be different.
- **Size R:** When on, The parameter "size" is random for every note. This allows you to have up to 12 Simulated Round Robin.



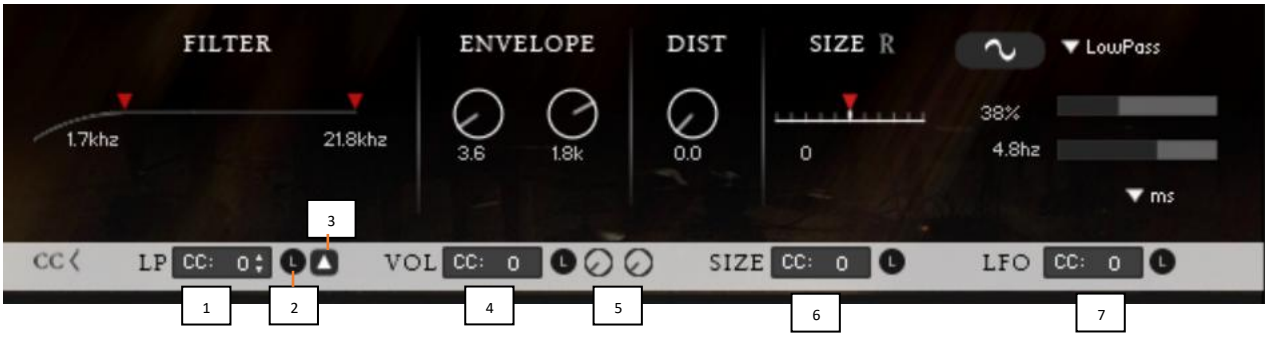
1: LFO Type. By clicking this button, the wave shape of the LFO will change. Is possible to change between Sine, Triangle, Saw, Square, Random and LFO Off (it will switch off the LFO).

2: LFO Target. Here you can decide which parameter the LFO modulates. *Note that you can address the same LFO to more targets simultaneously.* The "Amount" slider depends to the target. You can choose between Volume, Pan, Pitch, Low pass.

- **3: Amount.** The intensity of the LFO to address to the target selected in LFO Target. *Every target is independent,* so every target can have a different amount of LFO.
- **4: Speed.** Here you can change the speed of the LFO. Is it possible to change the unit from *millisecond* to *metronomic tempos* based on your project bpm, from the menu below the slider. This parameter is the same for every target.

(5) CC. This Button will open a little bar, where is possible to set some parameters to one or more control change.

Control Changes



1) **Low Pass CC:** In this box is possible to set the Control Change that will control the cutoff frequency of the low pass filter. The range depends on the cutoff frequency of the low pass set in the "Filter".
2) **Learn**: you can assign a control change to a parameter by clicking the button "Learn" and moving the control change that you want to assign to the parameter.
3) **Invert:** here you can decide the direction of the control.

   Filter Open > Filter Close (Cutoff frequency of the low-pass set in the filter)

   Filter Close > Filter Open

4) **Volume CC:** In this box is possible to set the Control Change that will control the volume of the layer. Is it possible to set the range of the control in (5)

5) **Volume Range CC:** With these two knobs, is possible to set the range of the CC. Some examples:

= from 0 to Max volume

= from Max volume to 0

= from ¼ to ¾ of the volume

6) **Size CC:** In this box is possible to set the Control Change that will control the Size of the layer.

7) **LFO CC:** In this box, is possible to set the Control Change that will control the *Amount* of the LFO.

   In general, in Kontakt is possible to assign some parameters to a control change by right-click a parameter. *Note that this not works for the Advanced settings of the layers.*

Settings

In this page, you can edit the main settings of the instrument.

Velocity

In this area is possible to change the velocity curve in input. With *Curve*, is possible to change the velocity curve from an exponential response to a logarithmic: use this parameter to fit the response of the instrument with the response of your keyboard.

You can also set a *minimum* and *maximum* velocity value.

Humanize

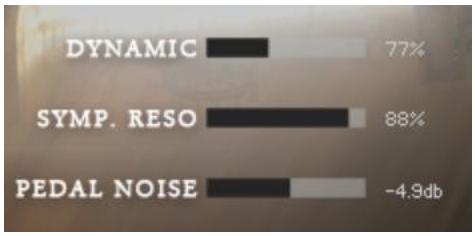
In this area, you can "humanize" your sound by adding some random parameters.

- **Pitch:** Randomizes the pitch of every note.
- **Pan:** Randomizes the panpot of every note.
- **Velocity:** Randomizes the velocity (useful with Arpeggiator on)
- **Time:** When on, it adds a little delay, latency to every note. The time of the delay is random, from 0 to the value of this parameter. You can appreciate this effect while two or more instrument are in layering.

Dynamic

"Dynamic" controls how much the velocity will affect the volume. Note that this parameter depends on the "Velocity" curve.

Symp. Reso



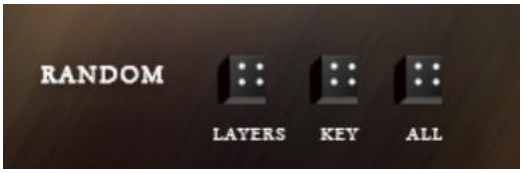
This fader controls the amount of the sympathetic resonance (the resonance between the strings when the sustain pedal is down)

Pedal noise

This fader adjust the amount of the "pedal" noise.

Random

With this function, is possible to randomize the preset.



- **Layers:** It randomizes the technique of all the 5 layers.
- **Key**: It randomizes the "Key SET" for all the layers, so each key will be different.
- **All:** It randomizes all the parameters: Layer technique, volume, panpot, tune, attack, filter, distortion of each layer and the send effects (convolution 1, 2 and delay) of the instrument.

IMPORTANT
Please note that this function is not reversible, so save the preset first if you don't want to lose your configurations!

Masking

PREPARATO has an engine that suppress the unused voices with transparency. In example, if you play the same note a lot of time, the software will gently suppress the oldest ones. This is crucial to contain the CPU usage of the instrument.

This engine improves the CPU performance up to 150%.

You can choose between "Low" masking (less suppressed voices), "Normal" and "High" (best CPU performance)

Always Loaded

If "Always Loaded" is on, the instrument will load all the samples of the techniques (and not only the one in use).

- *On*: All the samples are loaded, depending only on the settings of the microphones purge. It helps to save time when loading a preset / change a layer technique. Needs RAM resources.
- *Off*: Only the samples in use are loaded. Save a lot of RAM, but needs time to load a preset or a layer technique.

Overlap Keys

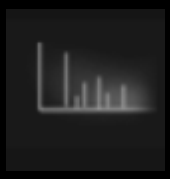
- *Off:* the single key "Set Keys" can be assigned only to one layer. I.E. If, with "SET", we assign the C3 to the Red Layer, and then we do the same with the Blue Layer, the C3 will play *only the Blue Layer.*

- *On:* the "Set Keys" can be assigned to more layers. I.E. If with "SET" we assign the C3 to the Red Layer, and then we do the same with the Blue Layer, the C3 will play *the Blue and the Red Layer.* The color of the Key will change in Black.

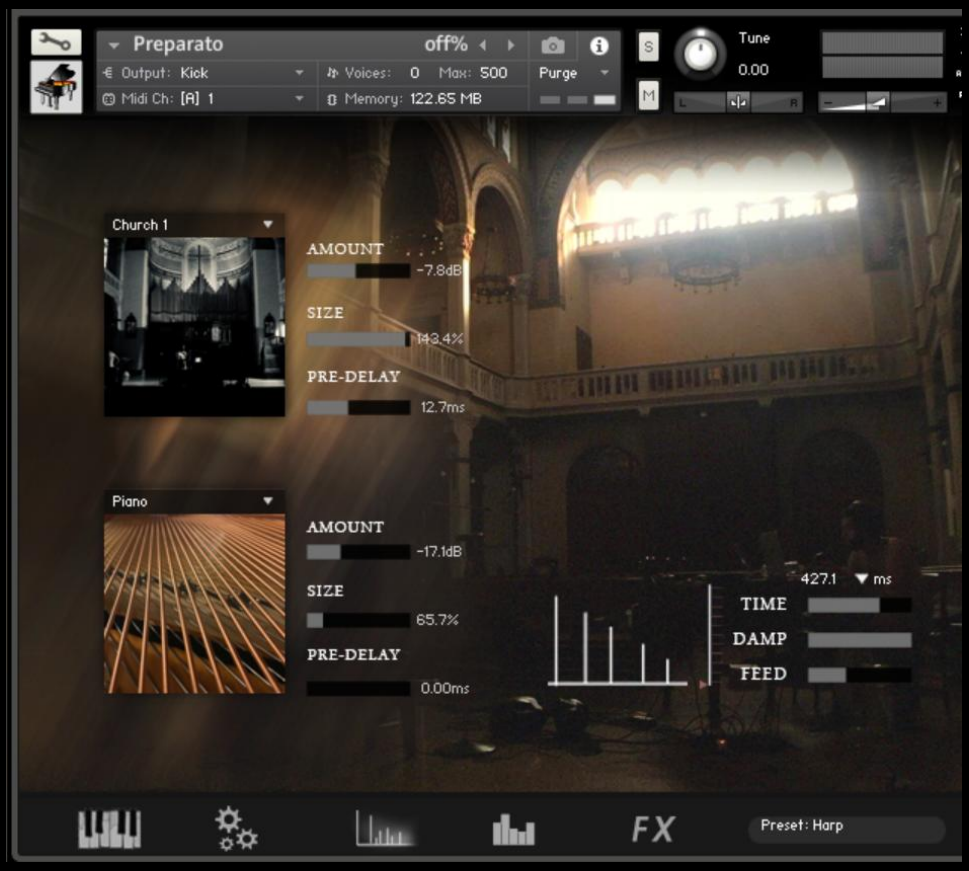
Photo & Credits

In this page, you can see some photos we made during the recording session, and a list of the main credits :)

. . .

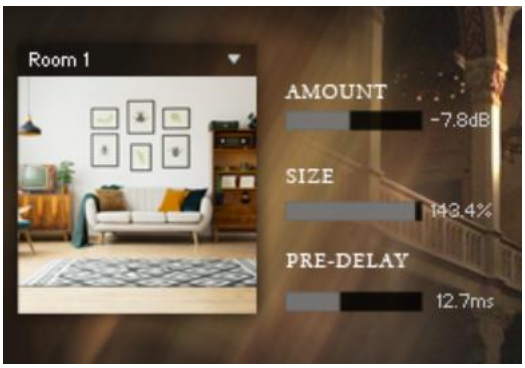


Reverb & Delay



In this page, you can add a convolution reverb and delay to your sound.

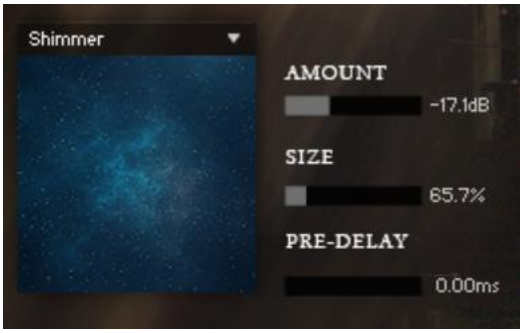
Convolution 1 – Real spaces



In this section, you can add a reverb to the piano. More than 25 Impulse Response of real spaces (Room, Hall, Church, Parking, etc.)

You can adjust the Amount of the reverb, the length of the tail (Size) and the Pre-delay.

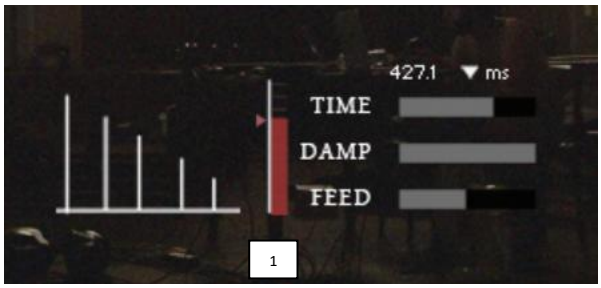
Convolution 2 – Special effects



In this section, you can add a convolution effect to the piano. These impulses are useful to create special and interesting effects.

NOTE: Long convolution impulses needs CPU Resources!

Delay



Amount (1): Sets the amount of the Delay Send.

Time: Adjust the time between the reflections. You can choose the time unit between *milliseconds* and *tempo values* (1/4, 1/8, etc.) based on your project bpm.

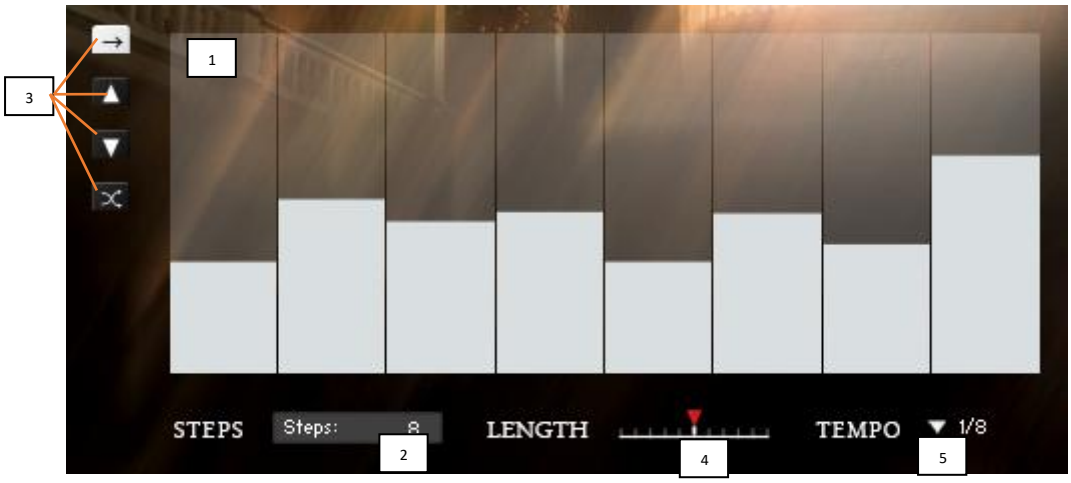
Damp: With Damp, you can decide how much the reflections will be "damped (with a low-pass filter).

Feed: Sets the feedback of the Delay. High numbers means more reflections and longer tails.

. . .

Arpeggiator

In this page, you can set the settings of the internal and powerful arpeggiator.



1: Arpeggiator Table

In this table you can set the *velocity* of the steps.

2: Steps

Sets the number of the velocity steps in the table. Maximum 32 steps, minimum 4.

3: Arp Mode

The sequence of the notes follows the order you played it.

The notes are played from the lower to the higher

The notes are played from the higher to the lower

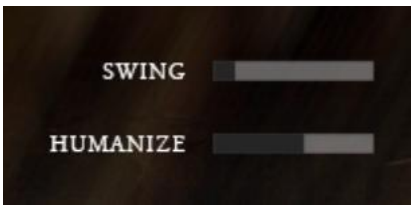
The notes are played in random order.

4: Length

The length of the notes. At low values, you will have a “staccato” effect.

5: Tempo

Here you can decide the tempo of the arpeggiator.
I.E. if time is 1/16, the software plays one note every 1/16. The tempo is dependent on your project bpm.



Swing: Sets the amount of swing of the tempo.

Humanize: This parameters allows you to randomize a bit the tempo. When Humanize is to 0, all the steps are be perfectly on grid.

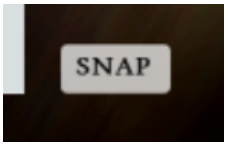
Arpeggiator on/off: Switch on/off the Arpeggiator.

Hold:

- *Off*: the arpeggiator will stop when all the keys are released.
- *On*: the arpeggiator will continue to play after releasing the keys. The sequence of the notes will reset every time you press new keys after releasing all the keys.

Snap:

- *Off:* the arpeggiator follows the metronomic tempo of your DAW, but it doesn't "snap" to the start of the bar. Instead, it starts when the first note is pressed.
- *On:* the arpeggiator follows the metronomic tempo of your DAW, and it snap to the start of the bar. This means that if you press a chord, it will start to arpeggiate at the start (first movement) of the next bar, and the repetitions will be perfectly on time.



FX

Effects

In this page, you can add some creative effects to the instruments.

Is it possible to switch on/off the instruments by clicking the yellow led.

Threshold: sets the threshold of the compressor. More this value is low; more the sound is compressed.

Ratio: sets the "ratio" of the compressor. More this value is high; more the compression will be "punchy".

Sustain: this knob controls a *Transient Shaper*. More this value is high; more the sound will have sustain and punch.

A simple and powerful Equalizer.

Low: less/more low frequencies (low-shelf @ 144hz)

LM: less/more low-mid frequencies (475hz, wide Q)

HM: less/more high-mid frequencies (2khz, wide Q)

High: less/more high frequencies (high-shelf @ 5.7khz)

The “Tape Effect” rack simulates an analog distortion of a tape recorder.

Sat: sets the gain of the “*Tape Saturator*”, which adds a musical distortion.

Tone: sets the high-cut filter of the saturation.

Wow: this parameter adds a slow modulation to the pitch, like an old broken tape.

The “Lo-Fi” rack degrades the sound in a creative way.

Bit: sets the bit depth of the sound.

Sr: sets the sample/rate of the sound.

Noise: this parameter adds some noise to the sound.

Amount: controls the send amount to the chorus effect.

Depth: sets the depth of the modulation.

Speed: sets the speed of the modulation.

The "Cabinet" rack simulates the response of a cabinet, and it features a screamer type distortion.

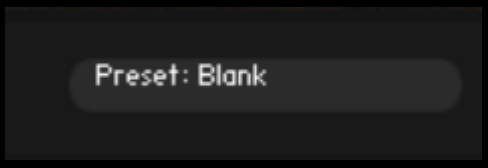
Type: You can choose the type of the cabinet to simulate. The available simulations are:

Tweed Green, Brit 60s, V30, V30 Back, Tweed, Tweed (Far), Uk 70s, Uk 70s (Far), Bass-WR, Bass-WR(Horn), Leslie 122.

You can bypass the cabinet simulation by choosing "Off".

Dist: sets the amount of the screamer distortion.

Tone: sets the tone of the distortion.



Presets

In this page, you can load and save your favorite presets.

PREPARATO Features an integrated browser and preset manager.

The presets are saved inside the "Presets" folder in the library, as .nka files. You can rename, delete and manage the files manually.

The presets are divided by categories. The preset that you save will go into the "User" Folder.

How to load a preset

Double click on the .nka file in the "Browse presets" control.
It needs some time to load. Rarely, it can happen that the load fails; in this case just try to load again the preset or to close and open again the instrument.

The loading process works better when "Always loaded" in settings is On. Otherwise, the software will need to unload and load the samples again.

If the loading process fails often, please contact us at *info@xperimentaproject.com*

How to save a preset

To save a preset, choose the name of your preset in the "Name" textbox, and then click on "Save".

The software saves the custom presets in the USER folder.

If the preset file already exists in the User folder, it will be replaced.

IMPORTANT

When you save a preset, you will not find it in the Browser "User" folder until you close and open again the instrument. This is because Kontakt updates the file browser only at the start of a new session of an instrument.

To recall a preset you just saved in the same session, use the *Last Saved* menu. Inside this menu you will find all the presets you saved in the same session.

After you close and open again PREPARATO, you will find all your presets in the "User" folder.

If you have some trouble with this browser, please use **Snapshots** or contact us for further information.

PERFORMANCES

Please note that the Acoustic Modular Instruments engine can be heavy on the CPU when a lot of function and effects are used. Some tips to avoid CPU overload:

- We highly recommend to set the buffer size value of your Soundcard up to 256.
- When possible, use 1 or 2 max. microphone positions, and Purge the unused ones.
- Set “Masking” to “high”.
- When you don’t use a convolution reverb slot, switch it off by choosing “Off”. The Special effects slot needs an important amount of CPU.
- When you don’t use the HP filter, make sure it is at its minimum level.

p|r|e|p|a|r|a|t|o

PIANO

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