

# Plectra Series 4: Turkish Oud

Sample Library for NI Kontakt

User Manual  
v1.0



## INTRODUCTION

Its name comes from the word al-‘ūd, meaning in Arabic ‘a piece of wood’. The oud is a fretless stringed instrument commonly used in Turkish, Arabic, Greek, Armenian, Persian, Jewish and North African music. Its history goes back to the middle ages. Its ancestor was the Kopuz, an instrument of the migrating Turkic nomads, who carried it from Central Asia to the Middle East. The oud became a popular instrument throughout the Byzantine empire and a crucial part of the Mediterranean musical tradition. With the spread of Islam, it became a prominent instrument of Arabic music. Crusaders returning from the Holy land as well as the Moors in Spain carried the oud to Europe. There, with the addition of frets, the oud evolved to the lute and later on to the guitar. Today, across the Middle East, the oud is considered to be “the king of all instruments”!

Modern-day ouds fall into two categories: Turkish and Arabic. Except Turkey, Turkish ouds can also be found in Greece, Armenia and the many other parts of the European side of the Mediterranean, whereas Arabic ouds can be found in various locations all over the Arab world. The Turkish oud that we sampled is a beautiful custom double-top oud, built by Faruk Türünz who is universally regarded as Turkey’s foremost oud-maker. The recording sessions took place in Studio A of the SAE Institute recording facilities in Athens-Greece, using top-class recording equipment, such as Neumann and AKG condenser microphones, SPL mic preamps and a SSL 4000E console. It was played by the instrument’s owner, the distinguished oud instrumentalist, Stelios Varveris.

has eleven strings: A single bass string and five double-string courses (for simplicity, all six of them will be referred to as “strings” on this manual). It has a short neck and large body. The short neck means that compared to other stringed instruments (e.g. the guitar), fewer note positions can be played on each string. We used an all-fourths tuning (C#-F#-B-E-A-D) and sampled seven positions per string, a common configuration. As a bonus we extended the highest string to reach up to an octave (twelve positions).

The reason for releasing this library in Kontakt format only is of course the power of Kontakt Script Processor. Scripting allowed us to program intelligent response to MIDI input so that it sounds as close to the real thing as possible. Examples of such features are: six-voice polyphony (one per string), per string legato, legato played with hammer-on or pull-off or glissando techniques, tremolo swells, finger pressure and release noise, an elaborate microtuning system that can be used in multiple musical contexts (e.g. traditional, modern, experimental), an essential audio processing suite, minimum need for keyswitches and option for full control if needed.

Thank you for purchasing PS4: Turkish Oud. We hope it will bring you the inspiration to write amazing music!

## INSTALLATION

1. Install the **Pulse** application if you don't already have it. **Pulse** is a cross-platform desktop app that lets you download and install your libraries with blazing speed!

<https://pulsedownloader.com/>

2. Once **Pulse** is installed, open it and enter your Plectra Series 4 download code. Follow the instructions to download and install the library.

3. Finally, load the desired PS4 Turkish Oud NKI in Kontakt. No activation is needed, as this is not a Kontakt Player instrument.

Optional: Please see our [Kontakt workflow tutorial](#) for information on adding instrument files to the faster Quickload window or the Kontakt Database.

## FEATURES

- 3,860 x 24bit samples
- 2 x microphone positions
- Each string chromatically sampled; 12 positions for 1st string, 7 positions for the others
- 4 x velocity samples for each position (Soft, medium-soft, medium-hard, hard)
- 2 x down/up strokes for each velocity level
- Hammer-On, Pull-Off, Tremolo and Glissando articulations, all chromatically sampled
- Realistic playing noises layered at adjustable level
- Automatic or manual control of string, articulation and stroke direction
- Intelligent mono/poly voicing; 6 voices max, one per string
- Real-time fingerboard display of the note position/articulation for precise control
- Microtuning, lots of oriental presets, ability to name/save/load custom tunings
- Basic mixer suite (Mic faders, EQ, Compressor, Reverb) with save/load ability
- Configurable engine settings, allowing finely-tuned instrument response
- Quartertone-detune keyswitch octave, for quick tuning to arabic maqam
- Major, minor and fifth chords

## DOWNLOAD CONTENTS

- Turkish Oud Library (2.2GB)
- Demo files (.mp3 and .mid)

## REQUIREMENTS

- Windows or MacOS system
- Native Instruments Kontakt v5.3.0 or higher (full version)

## OPERATION

The PS4 Turkish Oud library is a deep but easy-to-use virtual instrument. You don't practically need to know anything in order to use it, just load it up and start playing on your MIDI keyboard. The script will pick the most appropriate string positions for your notes and will alternate the plectrum plucking direction. Release the key and you'll hear your finger and string get lifted off the fingerboard. Some more things to know: You may sustain a note on one string (e.g. an open string) while playing phrases on others. The sustain pedal will sustain the more recent note of each string. Modwheel turns sustained notes to vibrato and MIDI expression controller (CC11) controls the tremolo intensity. Articulations and more advanced features can be accessed through the Graphical User Interface and keyswitches. Let's take a closer look at those.

## GRAPHICAL USER INTERFACE

The Graphical User Interface (GUI) is made up of 4 pages: Instrument, Microtuning, Mixer and Preferences. Pages can be switched by clicking on the page name at the GUI bottom. Note that the entire GUI can be hidden by clicking on the ISW logo which is located on the top-left corner (right below the wrench icon). This may come handy when you want to scroll through multiple instruments loaded in Kontakt. Clicking again on the ISW logo brings back the GUI.

## INSTRUMENT PAGE

This is the main performance control panel, where you can control how you want to play the instrument, from a full automatic performance down to a single note.

### (1) The fingerboard

The fingerboard is the way to monitor the notes played. As long as a note is sustained, a red icon indicates the string and position used. Below the fingerboard the note name and articulation are displayed as well.

### (2) Hammer-On/Pull-Off

This switch activates or deactivates the hammer-on/pull-off articulation. A hammer-on is the playing technique performed by sharply bringing a finger down on the fingerboard, causing a note to sound. Pull-off is the reverse technique performed by plucking a string by "pulling" the string off the fingerboard with one of the fingers being used to fret the note. The two techniques are grouped together because they are complementary. A hammer-on means moving to a higher pitch while pull-off means moving to a lower one.



When this articulation is activated, upward legato notes up to 3 semitone intervals will be hammered-on and downward legato notes up to 3 semitone intervals will be pulled-off. A pull-off can also be triggered by releasing a hammer-on note while still holding the previous plucked note, ie. an ornamental trill. Note that two consecutive hammer-ons or pull-offs are not possible, the second legato will be a regular plucked note. There is no such limit to alternating hammer-ons and pull-offs. Hammer-On/Pull-Off articulation is activated by default when a new instance of PS4: Turkish Oud is loaded into Kontakt. We did this because it is a very common oud playing technique.

A keyswitch also exists for this articulation (default position: A#2). Note that the keyswitch is momentary-type switch, ie. activates while pressed and deactivates upon release.

### **(3) Glissando**

Glissando is a glide from one note to another. When this articulation is activated, legato passages that are played on the same string will be played with glissando. Note that glissando supersedes hammer-on/pull-off. This means that if both articulations are activated and applicable, glissando takes priority. Glissando speed depends on note velocity.

A keyswitch also exists for this articulation (default position: G#). Note that the keyswitch is momentary-type switch, ie. activates while pressed and deactivates upon release.

### **(4) Tremolo**

Tremolo is the technique performed by rapidly plucking the same note many times in order to create a sustaining effect. While tremolo articulation is activated, all subsequent notes are played this way.

A keyswitch also exists for this articulation (default position: F#2). Note that the keyswitch is momentary-type switch, ie. activates while pressed and deactivates upon release.

### **(5) Plucking direction**

The oud strings are plucked by the plectrum in either upward or downward motion. Normally that motion alternates, but there may be times when we need to control which of the two to use. This 3-way switch defines the plucking direction at any time. It is by default in center (alternating) position. Using this switch allows you to strum, plucking notes on several strings with the same motion direction.

Two keyswitches also exist for this (default position: C#2 for Downstroke; D# for upstroke). Note that the keyswitches are momentary-type switches, ie. they activate up or down stroke while pressed and reset it to alternating upon release.

### **(6) String lock switches**

As certain notes on the MIDI keyboard can be played two ways on the oud (e.g. E4 can be played on either 1st string-2nd position or 2nd string-7th position), the choice of which of the two will be used is taken automatically by default. This automated decision follows common practice and depends on where the previous note landed. There can be times, however, that we want to make the other choice. This is what the string lock switches do. When activated, the

corresponding string gets priority over others. There can be more than one string lock switch activated at a time. If both applicable strings are activated, string locks are not considered.

### **(7) Last note played**

In order to monitor accurately your performance, the most recent note and its articulation are always on display right below the fingerboard.

### **Key-lock keyswitch (default note: B2)**

As stated repeatedly in this manual, articulations and other commands can be activated by clicking on the assigned GUI switches or by pressing the corresponding keyswitches on your MIDI keyboard. The difference between these two methods is that mouse clicking switches between active and inactive states (this is called a latch-type switch), while the keyswitches on the MIDI keyboard activate the articulation only while pressed and deactivate them when released (this is called a momentary-type or press-and-hold-type switch). While GUI switches are great for longer activations, keyswitches are better for quick modifications. And because sometimes it is hard to click on the GUI with a mouse (e.g. during a live performance) we created a way to make keyswitches function in latch mode. That way is the Key-lock keyswitch and functions just like the SHIFT key on your computer keyboard, meaning that while the Key-lock is pressed and held, all other keyswitches become latch-type buttons.

## **MICROTUNING PAGE**

Because of its fretless nature, the oud became famous for its ability to adapt to various tuning systems. This feature is so characteristic of the instrument that deserves its own GUI page! The microtuning interface is simple and powerful at the same time and allows you to design and transpose any tuning scheme you like.



### (1) Tuning matrix

By drawing with your mouse you can detune up or down each of the twelve notes, starting always at the key note. The matrix allows you to detune each note, at 1/100 (1 cent) resolution, up to a quarter-tone (that's half semitone, or 50 cents).

### (2) Key

By detuning the notes, their relation is modified. The intervals between them are not equal anymore and in order to transpose that special intonation we need to shift the entire matrix. This is what the Key knob does. As you rotate the knob, the notes of the microtuning matrix are rotated but the tuning scheme remains the same. That is because the tuning scheme is applied to steps rather than to notes. And the first step on the matrix (highlighted with red background) is the key note.

Note that after going through all 12 notes, the Key knob has one last option: Custom key. Paragraph Quarter-tone drop keyswitches, below, explains what this option does.

### (3) Preset

Each tuning scheme on the matrix is stored in one of the preset slots. There are twelve presets. Why twelve? Because sometimes multiple tunings are required for a single track. In traditional

Turkish and Arabic music, for example, certain scales (makam) have different tunings for ascending and descending directions. There may be a need for transposition as well. We figured twelve presets can cover all cases. Presets are assigned to a knob (instead of a menu, for example) so that they can be automated via MIDI CC.

#### **(4) Edit Preset**

Here you may save all 12 Presets together to a file, as a bank, and of course load them as well. You can name individual presets by selecting Name Preset. You may also copy and paste a tuning scheme from one Preset to another, or reset it to equal temperament. Finally, there are 12 factory Turkish and Arabic presets that you can use to quickly get that Middle Eastern flavor.

#### **(5) Quarter-tone drop keyswitches**

The last option of the Key knob, Custom, resets the tuning matrix to equal temperament (without deleting any preset) and also deactivates the Preset knob. At the same time a new set of keyswitches are activated at octave C1-B1. What these keyswitches do is addressing a common keyboardist need: to quickly set detuned scales, usually for Middle Eastern live performance. This functionality is similar to that of some hardware MIDI controllers. Pressing one of these keyswitches (they appear black on the Kontakt interface keyboard) drops the tuning of that note by a quarter-tone. Pressing the same keyswitch again resets the tuning to equal. It is much quicker to switch between scales and keys like that, than adjusting the GUI knobs.

## **MIXER PAGE**



The Mixer page gives access to an essential set of sound processing tools that help you quickly shape the sound of the instrument to your liking. It is made of four modules that can be bypassed. The signal is passed through in the following order:

### (1) Volume/Pan

There are Volume Faders and Panorama Knobs for mixing the two microphones to your choice of timbre and stereo image. The two Microphone Icons are On/Off switches that also load or unload the samples of that microphone. This helps Kontakt save on memory, in case you only want to use only one of the microphone sample sets.

### (2) EQ (Equalizer)

The microphone mix goes into a 4-band Parametric EQ that offers the choice of bell or shelf style control of the low and high frequency bands. This EQ is modelled on high quality analogue circuitry. Its controls are:

**Low Gain:** Adjusts the amount of boost or cut at the LF Frequency .

**Low Freq:** Adjusts the center frequency of the low frequency band at which the boost or cut will occur.

**Low Shelf:** Toggles the shape of the low frequency band. If turned off the band becomes a shelf. If turned on it becomes a bell.

**Low Mid Gain:** Adjusts the amount of boost or cut at the LMF Frequency.

**Low Mid Freq:** Adjusts the center frequency of the low-mid frequency band at which the boost or cut will occur.

**Low Mid Band:** Controls the Bandwidth of the low-mid frequency band.

**High Mid Gain:** Adjusts the amount of boost or cut at the HMF Frequency.

**High Mid Freq:** Adjusts the center frequency of the high-mid frequency band at which the boost or cut will occur.

**High Mid Band:** Controls the Bandwidth of the high-mid frequency band.

**High Gain:** Adjusts the amount of boost or cut at the HF Frequency.

**High Freq:** Adjusts the center frequency of the high frequency band at which the boost or cut will occur.

**High Shelf:** Toggles the shape of the high frequency band. If turned off the band becomes a shelf. If turned on it becomes a bell.

### **(3) Compressor-Transient Shaper**

Next on the signal path comes an easy-to-use Compressor designed to control the attack and sustain of the instrument (also known as Transient Shaper). Its controls are:

**Input:** Controls the input gain to the effect.

**Output:** Controls the output gain after the effect.

**Attack:** Controls the scaling of the attack portion of the input signal's volume envelope.

Increasing this parameter will add more punch and decreasing it will reduce sharp attacks.

**Sustain:** Controls the scaling of the sustain portion of the input signal's volume envelope.

Increasing this parameter will add more body to the sound and decreasing it will reduce the sound's tail.

### **(4) Reverb**

Last module is the Reverb. This is a high-quality convolution reverb processor that includes three distinct reverb choices that cover many mixing requirements: Room, Plate and Hall.

Of course you can switch off all the Mixer modules and route the dry signal out of the oud into your own effects chain. We recommend experimenting with the Compressor, as this module may help smoothen dynamic leaps and result in a more realistic performance, but beware of the extreme settings.

## **PREFERENCES PAGE**

Here you can make some adjustments to bring the instrument closer to your liking.



### (1) Keyswitch assign

Keyswitches can be placed anywhere you want, on the octave to the left (C2-B2) or right (Eb5-D6) from the playing key range.

### (2) Noise Volume

Sets the volume of the natural playing noises layer. These noises include finger scrapes, fretting pressure and instrument body resonance. Set by default to -6dB, the recording level.

### (3) Additional RR

When enabled, this option adds to the sample round-robin sample pool of each note, 2 additional artificial samples taken from the up/down neighbouring notes. The result is bigger sample variation which is useful when a lot of note repetitions take place. On by default.

## BONUS PATCH

Being fretless, the oud is not used as a polyphonic instrument. However, certain chords are not uncommon. We have recorded those and lay them out in the 'PS4 Turkish Oud Chords' bonus patch. Included are major, minor and fifth chords.

This is a straightforward patch without the scripts and option settings of the regular PS4 Turkish Oud instrument. Of course, the mixer is included in the GUI so that the Chords patch can match the mixer settings of the regular patch and blend seamlessly with it.

You can create more chords with the regular PS4 Turkish Oud patch (see plucking direction switch, on Instrument page).

## CREDITS

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