

THE WERSI OAS TECHNOLOGY UPGRADE PROJECT

Part 4 – Installing and Configuring Kontakt

The Kontakt Player

The Native Instruments Kontakt sampler is one of many currently available sample players that can reproduce the sound of musical instruments with remarkable accuracy. It has been selected as the preferred choice for the OAS upgrade project for the following reasons.

- The market leader
- Supports a large range of instrumental libraries
- Provides fast instrument loading times
- Employs efficient memory utilisation
- Incorporates an Instrument Bank provision

The software is available in two versions, the full *Kontakt 5* edition and a free *Kontakt Player 5* edition. The full version contains an extensive instrumental library and many special features designed for Digital Audio Workstations. The free version however provides all that is required for live performance applications and as such is the better choice for the upgrade project.

The Sampling Process

Sample players produce their sounds by sequencing through digital recordings of musical instruments. These recordings are known collectively as *Sample Sets*. A sample set can be constructed for a single instrument or for an ensemble of instruments. For an individual instrument, a professional musician will have been recorded playing the instrument in a variety of different articulations. For ensemble instruments, musicians will have been recorded playing together in a variety of different instrumental combinations, again with appropriate articulations. Typically, all the recordings will have been made in a concert hall or studio environment using a set of microphones positioned close to, above, around and at a distance to the instruments. The sound obtained from these microphones can be mixed together in various combinations by the sample player to achieve a particular ambience. It's also usual to separately sample the acoustics of the recording environment to produce what is known as *Convolution Reverberation*. This can also be added to the overall sound by the sample player.

A sample set is assembled into a *Library*. A library might contain just one sample set for a single instrument, or more commonly might contain a number of sample sets for a variety of different instruments. There is a huge range of libraries available for the Kontakt Player. These can be purchased separately and installed within the player. For the purpose of configuring and testing the Kontakt Player with the OAS MIDI system, we will install the free *Factory Selection* library. Once this is successfully commissioned you may wish to purchase other libraries of your choice and install them using the same procedure.

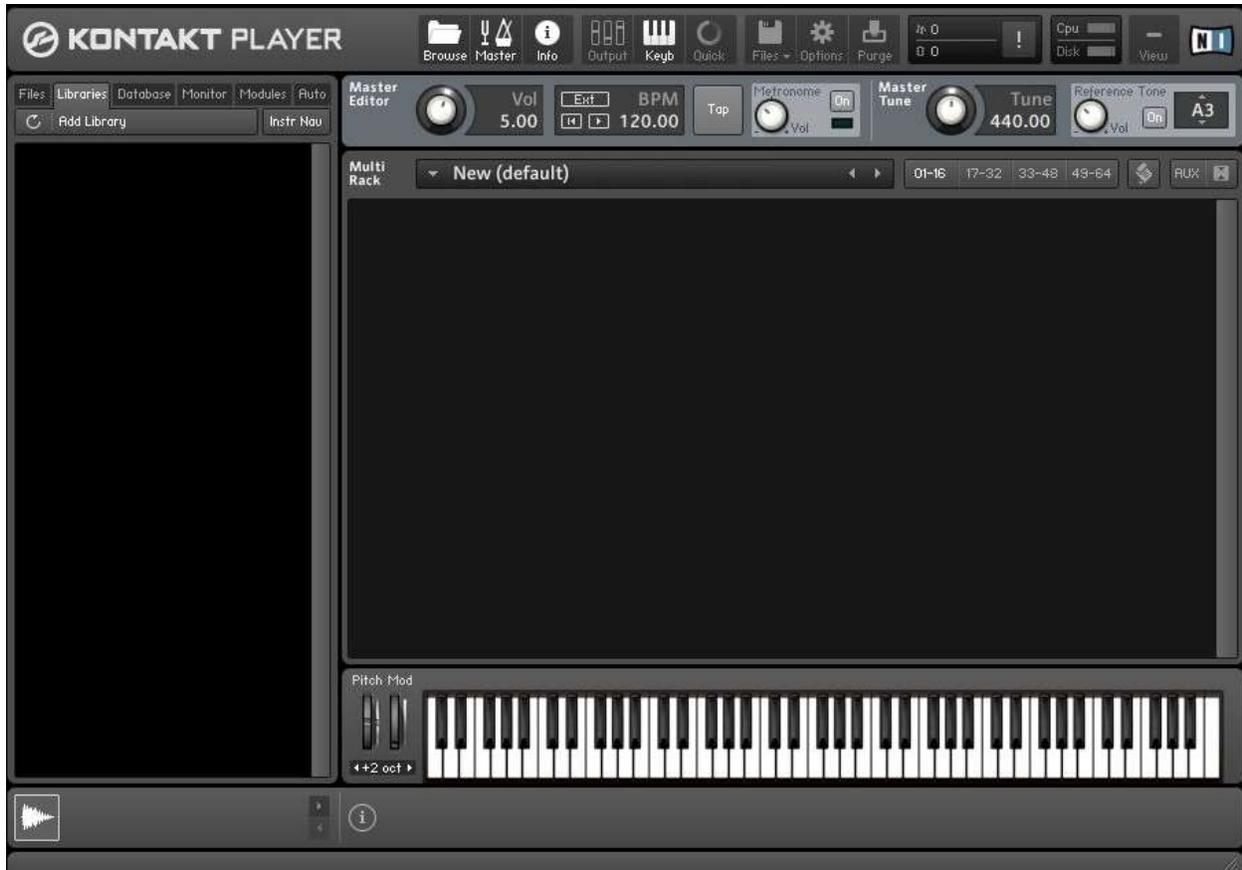
Installing the Kontakt 5 Player

The free Kontakt Player is available as a download from the Native Instruments web site at:-

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5-player/free-download/>

Follow the instructions provided by Native Instruments to download and install the software.

Upon opening the software you will see the main Kontakt Player *User Interface* shown below.



Installing the Free Kontakt Libraries

The Kontakt *Factory Selection* library is available as a download from the same Native Instruments web site at:-

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5-player/free-download/>

Follow the instructions provided by Native Instruments to download and install the library. The Kontakt Player User Interface should now show the library installed in the left hand libraries list as shown below. Note: You may have to close and then re-open Kontakt to see this.



All libraries installed in Kontakt need to be activated.

Click on the **Activate** button at the top right of the library entry. You will be requested to enter the serial number of the library. This will have been sent to you by email during the download process.

It is recommended that at this stage you familiarise yourself with the operation of the Kontakt Player software before continuing. The user manual is available from the **Help** menu.

Testing Kontakt from the Kontakt Keyboard

The Kontakt Player can be tested in stand-alone mode by loading any instrument from the Factory Selection library into the main area of the User Interface known as the *Rack*. The *Ragtime Piano* is suitable for this purpose as it uses all the keys on the keyboard.

On the Instrument Header there are two parameters, *Output* and *Midi Ch*. Each has a pull down menu. By default these are set as follows:-

Output: **st 1** - This is usually the digital output channel.

Midi Ch: **[A] 1** - This enables the instrument to play on Midi channel 1 of port A.

If the following test produces no sound, try the other Output channels and/or Midi ports. The User Interface should now be as shown below.



Now click on any key on the Kontakt Player keyboard with your mouse/trackpad or touchscreen and you should hear the sound of the piano.

Operating Kontakt from a Wersi Keyboard

To operate the Kontakt Player from a Wersi keyboard we need to load one of the external MIDI sounds into a selector. The easiest way to load an external MIDI sound is by selecting the **Quickload** option on the main OAS menu.

Now click on the **Sounds** button, select either **EXTERN 1** or **EXTERN 2** (depending on which MIDI output you are using) from the *Sound Devices* list, and choose any sound from the right hand sounds list. All these sounds are coded as the external MIDI Program Change numbers that enable a particular sound to be selected.

Now click on the **Load** button to load your selected sound into Selector 1 of the upper manual. We have previously configured this selector to MIDI channel 1, so ensure that the channel number in the *Ragtime Piano* Instrument Header is also set to this value.

The OAS selectors should now appear as shown below.



Now play any key on the upper manual keyboard and you should hear the sound of the piano.

Repeat this process for each of the other selectors on the upper manual, the lower manual and the pedalboard. Remember to set the Midi channel number in the Kontakt Player instrument header to the channel number of the selector you are using

Creating an Instrument Bank

In order for the 128 external MIDI sounds to play their equivalent instruments from the Kontakt libraries, we need to set up an *Instrument Bank* in Kontakt to hold all of these instruments. An Instrument Bank has 128 slots, each with its own unique MIDI Program Change Number, and these correspond to the Program Change Numbers of the external MIDI sounds.

From the Kontakt Player toolbar select **Files - New Instrument Bank** from the pull down menu.



An Instrument Bank header appears as shown below.



Now click on the **Wrench** icon located at the top left of the Instrument Bank header to display the Instrument Bank slots as shown below



To populate each of the slots in the Instrument Bank we will need to enter the required instruments from the Kontakt Player file system. These can come from one of two sources.

1) A Kontakt Library Instrument

Select the **Libraries** tab from the Kontakt Player Browser at the top left of the screen.



Locate an instrument you require from the library and simply drag it across to an appropriate slot in the Instrument Bank. In the example above the *Ragtime Piano* has been installed in the slot with Program Change Number 001 and the *Jazz Guitar* in the slot with Program Change Number 002. You can repeat this process with as many instruments as you like up to 128.

2) A User Modified Instrument

This is the case where a user has taken a library instrument, modified it and saved it as a user file in a folder. To access this file, select **Files – Load** from the Kontakt Player toolbar.



Locate the folder where you previously saved the file and again simply drag the file across to an appropriate slot in the Instrument Bank.

You can now play any sound in the Instrument Bank by loading an external MIDI sound into a selector with the same Program Change Number as the sound in the Bank. Again ensure that the selector and the Instrument Bank MIDI channel numbers are the same.

Setting the Instrument Volumes

We would like to replicate the same volume control regime on the external MIDI system that exists on the internal MIDI system. This means that the volume controls on the console will set the volume for the individual selector layers whilst the expression pedal sets the overall volume for all the layers. The Kontakt Player volume control for instruments in a library, a user modified instrument file or in an Instrument Bank is located at the top right of the header.



By default the volume control for instruments in a library or in a user modified instrument file is programmed to vary with the console volume controls, so no further action is required. All we need to do to complete the arrangement is to program the volume control in our Instrument Bank to react to the expression control.

Like most controls in the Kontakt Player, the volume control has a learn facility that enables us to associate it with a particular MIDI Continuous Controller (CC) code.

Right click on the Instrument Bank volume control to display the *Learn MIDI CC# Automation* message. Left click on this message and move the expression pedal backwards and forwards. You will see the volume control moving in sympathy. The expression pedal is now programmed.

Saving the Instrument Bank

To save the Instrument Bank as a file in a folder of your choice, select **Files - Save as...** from the Kontakt Player toolbar.



Configuring all the MIDI Channels

In the setup considered so far, an instrument will only play on one MIDI channel. In practice we would like to have any of the instruments in the Instrument Bank play on any channel. This will enable us to load the external MIDI sounds for these instruments into any of the OAS selectors. To achieve this we need to create a copy of the Instrument Bank for each selector we intend to use. Load as many additional copies of the Instrument Bank as you require using **Files – Load** from the Kontakt Player toolbar.

The example below shows three copies of the Instrument Bank corresponding to Selector 1 on the upper manual, Selector 1 on the lower manual and Selector 1 on the pedalboard.



Ensure that you set the MIDI channel number of each Instrument Bank to that assigned for its corresponding selector. So for this example:-

- Upper Manual Selector 1 – **MIDI Channel 1**
- Lower Manual Selector 1 – **MIDI Channel 5**
- Pedalboard Selector 1 – **MIDI Channel 8**



Creating and Saving a Multi

The Kontakt Player Rack containing copies of the Instrument Bank is known as a *Multi*. This needs to be saved as a Multi. Select **Files - Save Multi as...** and save in a folder of your choice.

Important Note

Each copy of the Instrument Bank is a separate entity. This provides us with the flexibility to have many different types of Instrument Bank in the Multi. For our purposes however this will generally not be required. So whenever you make a change to the Instrument Bank you will also need to replace each copy of this in the Multi, and then save the modified version of the Multi.

Playing the Kontakt Instruments

Each instrument in the instrument bank is selected by its equivalent external MIDI sound code. So in our previous example when we placed the sound *Extern Midi 2-001* in Selector 1 of the upper manual we would be selecting slot 001 in the Instrument Bank which is the Ragtime Piano. Placing *Extern Midi 2-002* in the selector would select slot 002 which is the Jazz Guitar. So to play any instrument in the Instrument Bank from any selector, simply place its equivalent external MIDI sound code in that selector.

To make it easier to identify a selected instrument, it's possible to change the name of its external MIDI sound to something more meaningful. This is done from the *MIDI Sound Programming Menu*.

Select **Settings – Edit MIDI Sounds** from the main OAS menu and click on your chosen sound.

Use to **Save** option on this menu to save the sound with a different name. The sound will now appear in the external MIDI sounds list with its new name and can be loaded in the usual way.

Automatic Startup for Kontakt

In both PC and Mac systems you can start up a program and load it with a file both at the same time simply by selecting the file in the computer's file system. In the case of the Kontakt Player the file we require is the Multi file, which will have the extension *.nkm*. Furthermore, both systems provide a facility for initiating this procedure when the computer is booted up.

- On a Windows PC system we place the filename in the computer's *Startup* folder.
Open up the folder that contains the Multi file.
Press the win and r keys simultaneously to open up the *Run* menu.
Type in **shell:startup** and click on **OK** to open up the *Startup* folder.
Right click on the Multi file in its folder and select **Copy**.
Right click in the *Startup* folder and select **Paste** to add the file to the folder.
- On a Mac system we add the filename to the *Login Items* list.
Select the **System Preferences** icon from the desktop.
Then select the **User & Groups** icon and from this menu click on the **Login Items** button.
Now select the **+** button and navigate to the folder that contains the Multi file.
Select this file and click on the **Add** button to add this file to the Login Items list.

Now when the computer is booted up you will see the Kontakt Player open up automatically, the Multi file will be loaded and all your Instrument Banks will be displayed ready for playing.

Coming Next

Part 5 of this series will cover the installation and configuring of the Hauptwerk software
