



**NATIVE INSTRUMENTS**  
SOFTWARE SYNTHESIS

# Intakt

## Operation Manual

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# Audio Interfaces

Audio interfaces allow Native Instruments software to communicate with the audio hardware of your computer and other programs that you may have installed. This chapter contains detailed information on the various audio interfaces and how to use them. The features of the various interfaces are described together with their suitable applications.

Basically, there are two ways of using NI software: as a “stand-alone” or as a “PlugIn”. In following, the two versions are described together with their corresponding interfaces.

## Stand-alone Application

This method allows you to use NI software as stand-alone programs with any of the following interfaces (drivers): ASIO, MME, DirectSound, and Core Audio. In this case, your computer acts as a stand-alone instrument, similar to a hardware synthesizer with a MIDI port and analog inputs and outputs. The table contains an overview of which interfaces are suitable for stand-alone operation on the various computer platforms:

Interface/driver	Windows	MacOS X
ASIO 2.0	●	
DirectSound	●	
MME	●	
Core Audio		●

## PlugIn

Used as PlugIns, NI software are not a stand-alone programs but rather program “modules” that can be integrated into a “host” program such as a sequencer. PlugIn mode allows you to integrate it seamlessly with the sequencer. Furthermore, it has many other uses as a PlugIn:

- MIDI sequencing and audio mix-down of the MIDI tracks within a single program
- Comfortable automation of parameters in the sequencer
- Further processing of signals using additional PlugIns
- Sample-accurate timing with MIDI controllers (when used as VST 2.0 PlugIn)
- Restoring of all PlugIn settings when the host document (such as a song file of the sequencer) is loaded
- Integration with other instruments into a “virtual studio”

This table provides you with an overview of which interfaces are supported by which host programs:

Interface/driver	Host Programs	Windows	Mac
VST 2.0 PlugIn	Cubase, Nuendo, Logic 5.x	●	●
Cakewalk DXi	Sonar	●	
Audio Units	Logic 6.x, 5.x		●
RTAS	Pro Tools 6.x, LE, Free	●	●

## Overview of Operating Systems and PlugIns

The interfaces described below are effectively different ways in which NI software can communicate with your sound card. The interfaces that are available on your computer depend on the sound card you are using as well as your computer platform (Windows or MacOS).

**ASIO** ("Audio Streaming Input Output") is a sound card driver architecture developed by Steinberg. ASIO is available for MacOS and Windows computers. It offers low latency and supports multi-channel audio cards. With its high performance and low latency, the ASIO driver interface is highly recommendable.

**DirectSound** is an interface developed by Microsoft and is a component of DirectX 5.0 or higher for Windows 98/ME/2000/XP. Whether or not DirectX works well depends on the sound card you are using. If the audio buffer size that you set is too small with DirectSound, glitches and clicks may occur in the audio.

**MME** is the standard “Wave” driver in Windows. Most sound cards support this interface and work with it quite well. However, MME is even less suitable than DirectSound for real-time applications. This is noticeable by a comparatively high latency.

**Core Audio** is a new audio interface available with MacOS X that allows you to use external audio hardware as well as the integrated audio output of the Mac.

**RTAS** is based on an interface protocol from DigiDesign that allows you to use PlugIns with ProTools (or other software that is compatible with DigiDesign). RTAS PlugIns function independently from additional TDM hardware and are nonetheless able to offer the widest range of features. In this case, the host processor alone performs all of the computations for the PlugIn.

Audio Units is the OS X PlugIn format developed by Apple. They may be used in similar fashion to VST PlugIns.

**DXI 2** is a PlugIn interface for software synthesizers and instruments based on Microsoft DXi technology. Sonar from Cakewalk and Fruity Loops are the most well known host sequencers that support DXi.

VSTi is the PlugIn format developed by Steinberg. It is cross platform and can be used in a variety of hosts.

# NI software as PlugIn

## VST 2.0 PlugIn

In addition to the stand-alone version, NI software can also be used as a VST PlugIn. The advantages of the VST 2.0 format allow us to provide you with a powerful PlugIn.

For more information on the VST 2.0 format, refer to the user guide provided with your VST host program.

## Using NI software in Cubase SX 2

- Launch Cubase, go to the **Devices** menu option and select the **VST Instruments** menu option.
- A window showing the instrument rack appears. Click on an empty slot and choose INTAKT from the available list of instrument PlugIns.



- The PlugIn will now appear in your list and automatically be turned on. It will also create a set of audio channels in your VST mixer that will be used for mixdown within your project. This will allow you to mix, pan, and process INTAKT 's output just like any other existing audio track in your Cubase song.
- Click on the **Edit** button to call up the INTAKT interface. Here you can control and edit all the features and functions that INTAKT has to offer.
- Now go to the "Project" page and add a MIDI track (if you do not have one already created).



- Go to the **Output** parameter section for this MIDI Track and click on the field. This will create a list of available MIDI out ports to assign to this MIDI track. Choose **INTAKT VST** from the list.

---

**Note:** If INTAKT does not appear in the list of available VST instruments inside your VST 2 host application, then it is not installed correctly.

---

After having loaded an Instrument from the library you should be able to trigger it via MIDI using a keyboard controller. INTAKT's sound will generate through the VST mixer and directly to your sound card. If the PlugIn does not receive MIDI or generate audio, then make sure to check the following areas:

- Make sure "MIDI thru" is enabled in Cubase.
- The MIDI channel of your MIDI track must correspond to the receive channel of the loaded instrument.
- Make sure that you have properly configured your sound card for use with Cubase.

(please refer to your Cubase manual for more information)

## Using NI software in Nuendo 2.0

- Launch an empty or current project in Nuendo.
- Click on the **Devices** menu and choose **VST instruments** from the menu options (or press F11 on your keyboard).
- A window showing the instrument rack appears. Click on an empty slot and choose **INTAKT VST** from the available list of installed PlugIns.



- The PlugIn will now appear in your list and automatically be turned on. It will also create a set of audio channels in your VST mixer that will be used for mixdown within your project. This will allow you to mix, pan, and process INTAKT's output just like any other existing audio track in your Nuendo project.
- Click on the **Edit** button to call up the INTAKT interface. Here you can control and edit all the features and functions that INTAKT has to offer.
- Now go to the "Project Editor" page and create a MIDI track (if you do not have one already created).

- Go to the **Output** parameter section for this MIDI Track and click on the field. This will create a list of available MIDI out ports to assign to this MIDI track. Choose **INTAKT VST** from the list. Also make sure you assign the MIDI input port to correspond to whatever MIDI controller you are using.



- Record enable the MIDI track.

---

**Note:** If the NI software does not appear in the list of available VST instruments inside your VST 2 host application, then it is not installed correctly.

---

After having loaded an Instrument from the library you should be able to trigger it via MIDI using a keyboard controller. INTAKT's sound will generate through the VST mixer and directly to your sound card. If the PlugIn does not receive MIDI or generate audio, then make sure to check the following two areas:

- Make sure "MIDI thru" is enabled in Nuendo.
- The MIDI channel of your MIDI track must correspond to the receive channel of the loaded instrument.
- Make sure that you have properly configured your sound card for use with Nuendo

(please refer to your Nuendo manual for more information).

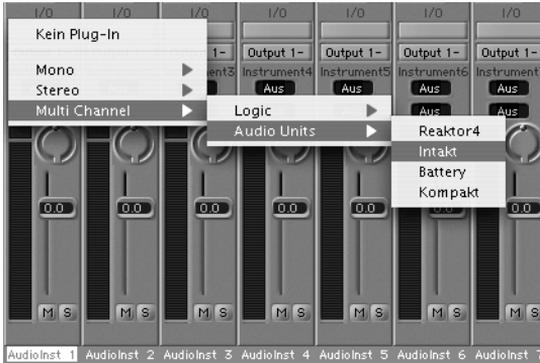
## Audio Units PlugIn

### Using NI software in Logic 6.x and 5.x (please note the setup is the same for Audio Units, Mac and VST, Windows)

- Launch Logic and create an audio instrument track or set an existing audio or MIDI track to an audio instrument track by clicking on it, holding down the mouse button and choose **Audio** ⇒ **Audio Instrument** ⇒ **AudioInst 1**.



- Double click the audio instrument track to open the environment window. Logic scrolls automatically to the first instrument bus in the Logic mixer.
- Choose the INTAKT Audio Unit/VST PlugIn in the appropriate insert slot of the instrument mixer bus, either in the arrange or mixer window. Then click onto the insert slot, hold down the mouse button and choose **Stereo** ⇒ **Audio Units/VST** ⇒ **INTAKT**. (INTAKT is also available as a multi-channel insert)



- The PlugIn now appears in the instrument slot and is ready to use. The instrument mixer channel will allow you to mix, pan, and process INTAKT's output just like any other existing audio track in Logic.
- If the INTAKT interface is not already open, double click on the mixer's INTAKT slot to call up the INTAKT interface. Here you can control and edit all the features and functions that INTAKT has to offer.

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**Note:** If INTAKT does not appear in the list of available VST instruments inside your VST 2 host application, then it is not installed correctly.

---

After having loaded an Instrument from the library you should be able to trigger it via MIDI using a keyboard controller. INTAKT's sound will generate through the VST mixer and directly to your sound card. If the PlugIn does not receive MIDI or generate audio, then make sure to check the following two areas:

- Make sure "MIDI thru" is enabled in Logic.
- The MIDI channel of your MIDI track must correspond to the receive channel of the loaded instrument.
- Make sure that you have properly configured your sound card for use with Logic.

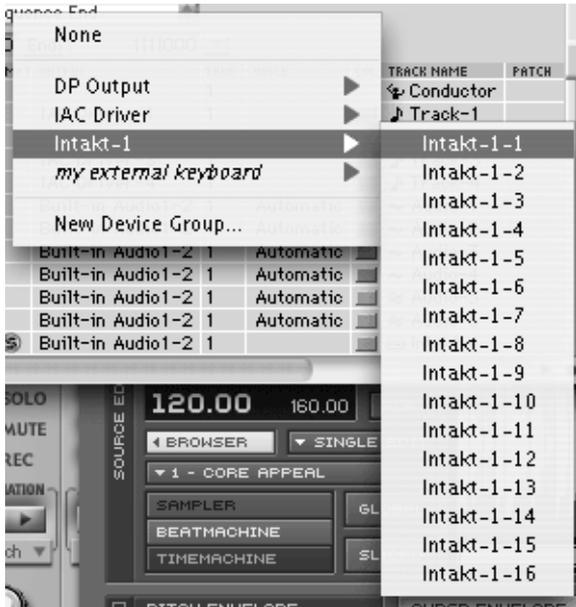
(please refer to your Logic manual for more information).

## Using NI software in Digital Performer 4.1 (or higher)

- Launch Digital Performer and create an instrument track by selecting **Project** ⇒ **Add Track** ⇒ **Instrument Track** ⇒ **INTAKT**.



- Create a MIDI track by selecting **Project** ⇨ **Add Track** ⇨ **Midi Track**. In Digital Performer's track overview window (or in the sequence editor window) assign the output of this MIDI track to "INTAKT-1" and a MIDI channel. If you instantiate further INTAKT Plugins they will be named "INTAKT-2", "INTAKT-3" etc.



- The PlugIn is now ready to use. The mixer of Digital Performer will allow you to mix, pan, and process INTAKT's output just like any other existing audio track.
- To play INTAKT with your keyboard, record enable the MIDI track which you have routed to INTAKT and make sure **Midi Patch Through** is enabled in the Studio menu of Digital Performer.
- Double click on the INTAKT slot in Digital Performers mixing board to call up the INTAKT interface. Here you can control and edit all the features and functions that INTAKT has to offer.

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**Note:** If INTAKT does not appear in the list of available Audio Unit PlugIns inside your Audio Units host application, then it is not installed correctly.

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After having loaded an Instrument from the library you should be able to trigger it via MIDI using a keyboard controller. INTAKT's sound will generate through Digital Performers mixer and directly to your sound card. If the PlugIn does not receive MIDI or generate audio, then make sure to check the following two areas:

- Make sure **Midi Patch Through** is enabled in the Studio menu of Digital Performer.
- The MIDI channel of your MIDI track must correspond to the receive channel of the loaded instrument.
- Make sure that the instruments track output is correctly set.
- Make sure that you have properly configured your sound card for use with Digital Performer.

(please refer to your Digital Performer manual for more information).

## DXi 2 PlugIn

DXi 2 is a PlugIn interface for software synthesizers and instruments based on Microsoft's DirectX technology.

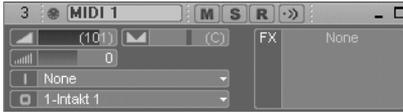
## Using NI software in Sonar

- Launch Sonar
- In the synth rack choose **INTAKT DXi 2**.



*Loading the INTAKT DXi 2 PlugIn in the synth rack*

- Route a MIDI track to the DXi 2-PlugIn by selecting **INTAKT** in the Out drop down list.



#### *Assign a MIDI track to the INTAKT 2-DXi-PlugIn*

After having loaded an Instrument from the library you should be able to trigger it via MIDI using a keyboard controller. INTAKT's sound will generate through the Sonar mixer and directly to your sound card. If the PlugIn does not receive MIDI or generate audio, then make sure to check the following two areas:

- Make sure "MIDI thru" is enabled in Sonar.
- The MIDI channel of your MIDI track must correspond to the receive channel of the loaded instrument.
- Make sure that you have properly configured your sound card for use with Sonar.

(please refer to your Sonar manual for more information).

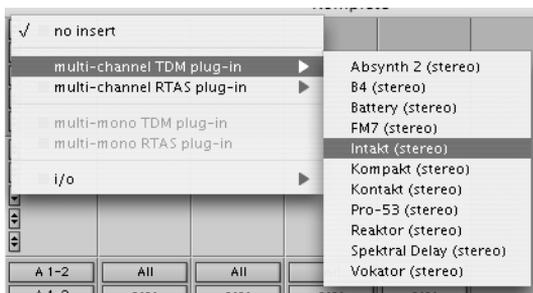
## **RTAS PlugIn / HTDM PlugIn**

### **Using NI software with Pro Tools 6.x under Mac and Windows**

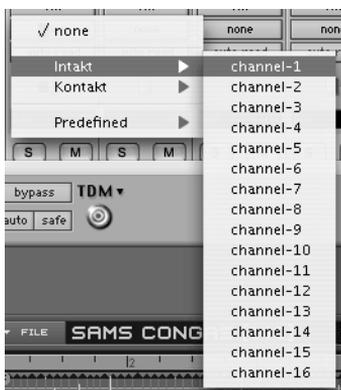
The RTAS format is an interface protocol for Mac OS and Windows that allows you to use PlugIns with ProTools independently from additional TDM hardware, while nonetheless offering the widest range of features. In this case, the host processor alone performs all of the computations for the PlugIn.

- Launch Pro Tools
- Create a new **AUX** track **File** ⇒ **New Track**
- Create a new **MIDI** track the same way
- Locate the channel mixer **Windows** ⇒ **Show mix**
- The dark grey box at the topmost section of the AUX channel is the RTAS insert section. Click on the first empty slot to show all available RTAS PlugIns.

- Choose **INTAKT** from the menu



- Now locate the **MIDI** channel you just created
- In the output slot, choose INTAKT and the appropriate channel



After record enabling the midi track, you will be able to play INTAKT with your midi keyboard.

(Please refer to your Pro Tools manual for more information on how to record INTAKT's output).

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Note that on Pro Tools TDM systems stereo RTAS PlugIns can only be instantiated on stereo audio tracks.

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# Intakt Standalone Version

The stand-alone version allows you to use the application independently from other programs. In order to use the Standalone version you have to do the audio and MIDI settings first. You can call up the **Audio + MIDI Settings** setup dialog from the File menu. For setting the standalone interfaces please choose **Setup...** from the **File** -menu.



*Audio + MIDI Setting dialog*

## Soundcard tab

### Interface

All of the supported (and installed) audio interfaces are available in this drop-down list. Select the desired audio driver (MME, DirectSound, ASIO, SoundManager, Core Audio) from this list.

### Sample Rate

Depending on the sound card and driver you are using, various sample rates are available. Set the desired sample rate here.

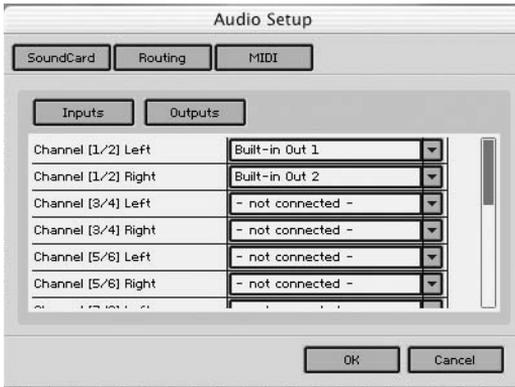
### Output Device

Here you can define which of the installed audio interfaces should be used for the audio outputs based on the driver selected under **Interface**.

## Output Latency

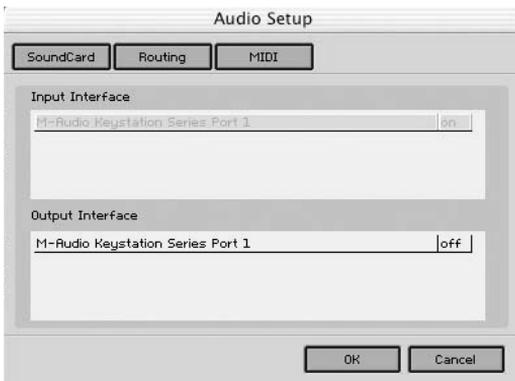
This box displays the output latency. With some drivers you also get a latency slider for setting an individual latency.

## Routing tab



If you are using a multi-channel sound card, Intakt also allows you to freely select which channels to use for the output signals.

## MIDI tab



These two boxes (MIDI inputs and MIDI outputs) display all of the MIDI inputs and outputs that are correctly installed on your system. Click in the right column to “off” or “on” to activate or deactivate the corresponding MIDI input or output. From this point on, INTAKT sends and receives MIDI on the activated inputs and outputs.























# Intakt Architecture

At INTAKT's basic level you have the Sample. Essentially, each Sample or Slice of a Sample is also a Zone. Samples or Zones represent the position and stretching of a sample across the keyboard. So, the Zone can be a single key or an entire octave. Each Zone uses also one of three Modes. They are the Sampler, Beat Machine and Time Machine. Each of these Modes has specific functions that give you the power to shape samples, while modulation and effects sections let you process them and add the finishing touches.

INTAKT's hierarchical structure allows you to create complex sounds, or to gather together associated samples for live performance. One or more Zones associated together into an Instrument can be edited and effected as a whole using the Multi Edit capabilities. Since each Sample in one Instrument can have its own effects, you can easily group together a series of sounds to use in a live set. An INTAKT Instrument has its own filter, amp, envelopes, LFOs, effects, and a master filter.

INTAKT's interface is divided into four areas: **Source Edit**, **Modulation**, **Effects**, and the **Keyboard**.



# The Browser

The Browser is where you locate your sample and instruments that can be loaded into INTAKT. It can be opened and closed using the Browser button located under the Master Tempo knob.



The upper Browser pane is a directory of your computer, including all hard drives, CD-ROM drives, etc. For example, to find files on hard drive C, click on the (+) sign next to the C: icon. A list of all folders on this drive shows up below it.

If these folders contain sub-folders, then the folders also have (+) signs. Click on these to open the folders. Once opened, the (+) sign changes to a (-). Click on this to close the folder; the sub-folders will disappear.

When you click on a folder itself (rather than a + or - sign), any files that INTAKT recognizes will show up in the lower pane. (Note that you can specify what file types you want to see with the Show menu (described later) just above the browser.)

To place samples from multiple folders into the lower pane, Shift-click on the folders, and all samples contained in these folders appear in the lower pane.

To drag multiple files from the lower pane into INTAKT, you have two options:

- Shift-click to select non-contiguous samples
- Click-drag a rectangle around multiple samples.

## **Folder/File Tree behavior in the Browser**

It is possible to expand/close Folders and subfolders by clicking once on the Folder icon itself. Double clicking the Folder name will perform the same actions. When INTAKT compatible files are contained in the Folder, they will be shown in the lower pane of the Browser.

## **Drag and drop from browser into INTAKT**

Simply drag samples or instruments from the browser window into the virtual Keyboard or Loop Editor.

Please take note of INTAKT's special feature for dragging samples to the virtual keyboard. INTAKT is designed for ease of use. So when you drag a sample to the keyboard, the placement of the mouse cursor is very important. When you drop an audio sample on the top part of a key, the sample will be mapped the entire visible range of the keyboard. Dropping a sample on the bottom of a particular key will map that sample to that specified key only. Likewise, dropping the sample in the middle portion of a key will yield a mapping range larger than one key, but shorter than the entire range.

## Auditioning Samples from the Browser

The control strip at the bottom of the Browser lets you audition samples prior to loading.

- To control the Sample playback level, use the left volume control slider.
- To automatically play a Sample as soon as you click on it, enable the **Auto** button.
- To replay a Sample in Auto mode, or play a selected Sample when not in Auto mode, click on the Speaker icon.

## Viewing Selected File Types in the Browser

If you have a large sample collection, sometimes it's convenient to restrict the Browser to showing only certain file types. To do this:

- Click on the **Tools** button.
- If a diamond is to the left of the file type name, it will be displayed. If there's a blank space, it will be hidden. Clicking on the diamond or blank space toggles between the two options. Choose from WAV, AIFF, SND II, REX (.rex and .rx2), NKI, EXS 1 and EXS 2, AKAI (S1000 and S3000), Battery, LM4 and SF2 file types.

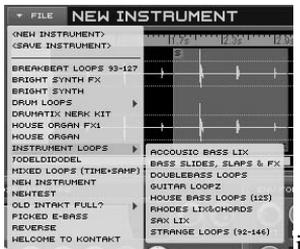
## Refreshing the Browser

If you have deleted, moved, or added samples and/or folders in the file browser of your OS after opening INTAKT, you will need to refresh the Browser to reflect these changes. To do this:

- Click on **Tools**
- Click on **Refresh**

# The Source Edit Section

The Source Edit section is where you perform most global Instrument management functions, like opening and saving Library files, setting preferences, etc.



## File menu Section

The top field, where the **File** menu button is located, is where you can load and save the Instruments that come with this particular INTAKT product. You can enter a name by double-clicking in this field and typing in the new name. To edit a name, drag over the text to be edited and type in your changes.

To the left of the File list, you will find an information area. This arrangement of text fields gives you information about the midi channel, loaded samples in memory, and lets you make changes to voice settings.



- **MIDI channel:** Lets you change the MIDI channel that this INTAKT responds to. To change the MIDI channel, click and hold on this field to access the drop-down menu. The midi port lights up when a midi signal is received.
- **Used memory (RAM):** On the top, to the right of the information area, the size of the loaded Samples in RAM is displayed. This is easily identified by the RAM chip icon.
- **Polyphony:** The top right corner displays the instrument's polyphony. The left digit displays the number of notes being played at any given time, while the right digit shows the maximum number of notes available. Click and drag the right field to increase or decrease the maximum number of voices.

## Options Menu

The Source Edit area also allows you to set preferences for this INTAKT. Click on the Options button to select **General Options**



*General Options window*

In the General Options window, you can set the overall INTAKT preferences.

- **Master Tune:** Adjust the overall tuning of INTAKT in cents.
- **Auto-Convert Loaded Samples to 32-bit:** Enable this to convert all loaded samples to high-resolution 32-bit format. This conversion to 32 bits uses more RAM, but can enhance your CPU performance.
- **Display Mapping on Keyboard:** Enable this to show the key-mapping of each Instrument via colored keys.
- **Use Computer Keyboard for Playback:** Sets the computer keyboard as an input device.
- **Reset Knobs to Default with CTRL+CLICK:** This enables you to reset knob values by **right-clicking** (PC) and **CTRL-clicking** (MAC)
- **Use Std. CC#7/CC#10 Volume & Pan:** Sets INTAKT to recognize the standard MIDI assignments for volume and pan controllers.
- **Auto Combine Imported Samples to Stereo:** Use this feature for importing files that are split stereo files.

- **Clone Group Settings with New Sample:** When this feature is activated, each new imported sample will clone the mode and effects of the currently selected sample. Please note that beat Slices are not cloned.
- **Zoom Mode:** When disabled this function sets the Sample to fill the entire Loop Editor view when fully zoomed out. If left enabled you will achieve more accuracy when placing Slice Markers as the visual representation will be more accurate.
- **Enable auto on/off for modules:** When this is enabled you do not need to press the modulation/effect header to activate them. Turning a knob or slider will automatically activate the modulation/effect it belongs to.
- **Use individual outputs for slices (no delay FX):** Activating this will enable outputs 1-16 as stereo pairs. Meaning that you can send different zones to multiple outs. When this is left unchecked then every zone will output channel 1-2. Multi out disables the Delay effect.
- **Content Directory:** Choose the directory where the INTAKT library is located, in case you moved your Library to a different location after installation.

## Global Tempo Section

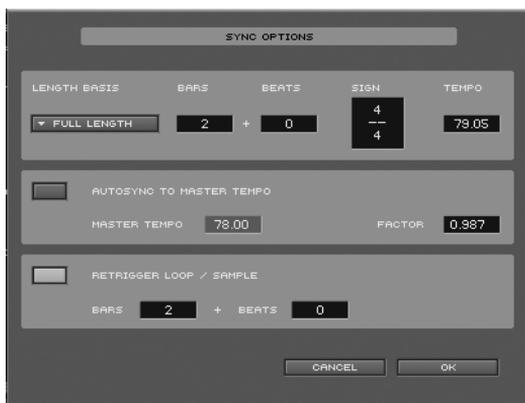
The tempo section is where you make tempo based changes for your Instrument.



*The tempo section*

- **Global Tempo Knob:** Global tempo knob for INTAKT's BPM. In plugin mode the global tempo is taken from the host application. In this case the global tempo can not be adjusted within INTAKT.
- **Sub Tempo Knob:** In Beat Machine and Time Machine Mode you can change the tempo of each Loop individually with this knob.

- **Sync:** Press this button to sync to an external clock like a sequencer. In standalone INTAKT will sync to it's internal clock. Please note Sync is not available in Sampler mode.
- **Play:** Plays the sample that is currently displayed in the Loop Editor
- : **Sync Menu options button.** This dialog is useful when you do not know the tempo of a given sample, but maybe you know how many beats it is. If you know the tempo of your sample, just double click on the value field in the tempo section and enter it. Otherwise, in order to calculate the exact tempo of samples and you will have to open the Sync Options Dialog. Factor and Tempo are editable parameters (both in this menu and in the Global Tempo Section of the program). Adjusting these will recalculate whatever entries you have made in this dialog.



*Tempo section sync menu*

- **Length:** In this drop-down menu you set the basis length of the sample you want to calculate the tempo from. **Full Length** is for the whole sample. **Loop Length** is for manually highlighted loops, while **Start and End** sets the basis length to fit between the start and end markers.
- **Bars + Beats:** Enter the number of Bars and Beats that your Sample has here.
- **Sign:** Enter the correct time signature for your Sample here. The default time signature is 4/4.

- **Tempo:** This is the sample's original tempo. This figure is calculated automatically based on what you enter in the Bars + Beats section and what is selected from the length menu.
- **Master Tempo:** This is your Master tempo for INTAKT which is displayed underneath the master tempo knob.
- **Factor:** This parameter is not editable. This simply shows the ratio between the original tempo (set) and the master tempo of INTAKT.
- **Autosync to Master Tempo:** When this is selected INTAKT will bypass the internal clock and sync to an external midi clock like a sequencer.
- **Retrigger Loop/Sample:** The Retrigger Function is a multifaceted feature that is extremely useful when synchronization of Samples is needed. Detail and function follow below.



If you are used to working with Loops, then you know the difficulty you can encounter trying to keep two sources, even at the same Tempo, in sync over time. Either due to an envelope release on one sample being too long or from tiny discrepancies in sample length, the synchronization will almost always slip out of time.

The Retrigger Function forces the playback of each Sample to the Start Point after a specific Bar and/or Beat count. This way, even your Samples that are fractions off remain tight because they are always restarted (retriggered) in accordance with INTAKT's internal clock.

There are two ways to set the retrigger length.

By enabling the **RETR** button in the tempo section, an orange retrigger marker appears. Set it to the correct length.

Open the **Sync Options** Menu and enable **Retrigger Loop/Sample** from the menu. Then enter the number of Bars and/or Beats. The entered values will cause the Sample to retrigger after this count has passed.

## Retrigger and Loop

While these features are essentially the same thing, they can actually be used together to create interesting playback of Sample material. The easiest way to explain this is by example. Open the **Stingy Wino (FX)** kit from the location **Construction Kits>Funk**.

Hit the D2 key so that playback starts. Watch the cursor advance. The Loop gets playedback twice but the cursor never reaches the Retrigger Marker. In this example, Playback does not continue to the end of the Sample, rather it repeats the looped portion in an amount relative to the position of the Retrigger Marker. If the Sample were longer, and the Retrigger Marker extended to the end, the Loop would repeat even more.

Setting an End Point before the Retrigger Marker will stop audible playback of the Sample, however it will remain synced to the clock. This is a good way to mute the end of your Samples before retriggering them.

## Internal Clock Play Button

INTAKT's internal clock can be started and stopped by pressing the **PLAY** button just above the tempo section. When the button is highlighted the clock is running, when it is gray the clock is off. The INTAKT logo highlights at quarter note divisions (It appears to be spinning). The internal clock is linked to the **Play** button. The computer keyboard **Spacebar** starts and stops the internal clock.

If you have triggered some tempo synced Zones at the same time and realize that they are not in sync to each other, turning this button off and on quickly will resync all Zones (that have Retrigger enabled).

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Important: Having the Internal Clock Play button off disables Input Quantize (keyboard options). By default the clock is always on when a sample is loaded.

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**Tip:** Load the All Drum and Bass Kit by going to **File>Drum Loops>Drum and Bass>All Drum and Bass 1**. Turn the Internal Clock Play button off, Press the keyboard latch button and hit some keys. Don't hear anything? Do not worry-that is intended behavior. Now press the Clock **Play** button and listen to the tight sync of all the kits. This is perfect if you want to line up multiple instances of INTAKT for a live set.

## Edit Modes



### *Edit options*

INTAKT has three edit modes for applying effects and modulation to single Zones or the entire Instrument.

- **Single Edit:** When this is selected the applied effects will only affect the one chosen Sample or Zone.
- **Multi Edit:** Choosing multi edit allows you to group Zones (by activating the latch button or pressing multiple keys on your keyboard) and apply effects or modulation to all those Zones selected.
- **Edit All:** When activated, applies any edits you make to all Zones within the instrument.

## Group List

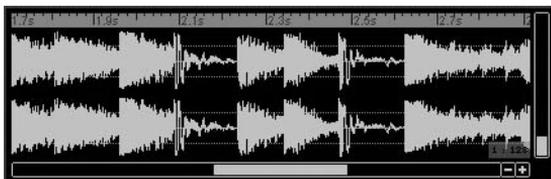


*The Group List contains all Zones in the INTAKT Instrument*

Underneath the Edit Modes is a drop down list that gives you quick access to all Zones in your INTAKT Instrument setup. Clicking on the button shows you whatever Loops or Samples that have been loaded into INTAKT. Making a selection from the list refreshes the Loop Editor and Modulation/Effects settings associated with that Zone.

## Loop Editor

The Loop Editor is the heart of INTAKT. In addition to giving you the visual preview of the chosen Zone, this is also where you (depending on which Mode you are in) set loop Start and End points; highlight a portion of the sample to loop, as well as insert, move, lock or delete Slice Markers.



*A Loop overview*

To work with the Loop Editor, select the Zone you want to edit, either via the Keyboard or the Group List. The view refreshes with new parameters. See the Modes section for more details.

The Time Display Ruler is calibrated along the top in Bars and Beats. Clicking on this once will change calibration to absolute time in seconds. The right scroll bar changes the magnification of the waveform amplitude; scrolling up increases the magnification. The bottom scroll bar views different portions of the Sample; the (+) and (-) buttons zoom in and out, respectively. Next to the (+) and (-) buttons is a Full Zoom button which zooms the selected Sample to be viewed in full range. A moving cursor advances to let you know the precise playing position within your Sample.

## Setting Sample Start and End Points

The Sample Start (S) and End (E) points in the Loop Editor are freely assignable. Meaning you can click and move them wherever you want to. As default, when you load a file they are placed at the beginning and end of the Sample. Setting the Start Point later could be a way to bypass a sound's attack, while setting the End Point earlier could be useful to shorten a sound's release.

## Setting Loops

In order to set a Loop within your Sample you will have to make a loop selection. **Right-click** (PC) or **CTRL-click** (MAC) in the Loop Editor and move the mouse right. This action highlights a section. After selecting your Loop, you can move this assigned section by clicking the highlighted Loop (the mouse pointer changes to a cross). To lengthen or shorten the loop, move the mouse pointer to either edge of the selection. It will change to a bi-directional arrow allowing you to drag left or right. This is useful for when you've found what seems to be a good loop point, but perhaps could be improved by shifting its position within the sample. In Beat Machine Sliced Edit Mode the loops snap to the set slice markers.

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Loops will always play from the Start Point cue. If you decide to draw a Loop within your Sample you will have to move the Start Point to the beginning of your Loop. This feature has an advantage. It is such that if you have a synth sample you can play it from the beginning, but loop the release. Thus extending the Sample. This can sometimes cause very nice effects.

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## Loop Playback



To the right of the Loop menu next to the waveform display you can set the mode for Loop playback.

- **Off:** Turns off the Loop.
- **->:** Plays the loop only in the forward direction.
- **<->:** bi-directional plays the Loop once forward and then backward and continues this way.

## Instrument Amp



The Instrument Amp controls the mixing parameters for each Zone or the whole Instrument. This gives you unlimited flexibility. With these controls you can position each sample precisely where you want it in the mix. Pressing any key (or group of keys) and then adjusting one of the following parameters will result in mapping it to the key(s).

- **Volume:** Sets the sample or slices's output level. Since IN-TAKT sums together all voices at the output, playing many loud voices at once could result in clipping. Be careful when you set each Instrument's Volume in order to avoid distortion (unless that's the kind of thing you are into).
- **Pan:** Allows you to position the Sample/Slice position within the stereo sound field. For fine adjustments, hold down the Shift key while dragging with the mouse.
- **Tun:** This control changes the Sample/Slice's master tuning in semitones, up to +/- 12 semitones, or one octave. To enable fine-tuning in cents (1/100th of a semitone), hold down the Shift key while dragging with the mouse.
- **Vel:** This represents how velocity is affecting volume, as expressed by how fast a key goes from full up to all the way down.
- **Meters:** These show the Instrument's signal output level. If the red clipping indicators light up, reduce the overall level to avoid distortion.

# The Mode Section



## *The Mode Section*

The Mode section is where you can call up one of three different Sampler Modes. Each of these Modes have their own set of editable parameters and can be used to process single samples, Slices or Zones. INTAKT's Sample Modes are:

- Sampler
- Beat Machine
- Time Machine

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The Loop Editor display and Mode controls update themselves based on which Mode is selected. Sampler and Time Machine views look similar, while when Beat Machine is selected you will see slice markers appearing.

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The different Modes in INTAKT are represented by three colors. The Sampler Mode is **yellow**. The Beat Machine is **blue**. The Time Machine is **red**. Depending on which Mode is selected for a Zone, the keyboard keys will be that color.

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## Sampler

This is a “standard” representation of a digital sampler. The module streams the (properly converted) sample data from system memory, and does any needed pitch changes by resampling the audio data. This module also loops samples.



- **Tracking:** When enabled, a Zone’s pitch changes as you play different keys on the keyboard. This is important for pitched sounds. Disable it to have the Zone always play at its original pitch, without transposition. This is useful for layer a drum sound across several keys so you can trigger it with several fingers (to play rolls or to play it polyphonically) without affecting the pitch.
- **Reverse:** Reverses playback for all samples contained in the selected Sample.
- **Output:** This drop-down menu selects an audio output for the currently selected Sample. You have your choice of 8 stereo outputs. If you want to send a Sample only to one mono output, just select a stereo out and pan the selected sample to either full left or full right.
- **Sample Info:** In this window the sample rate, bit rate and length of the sample is displayed.

## Beat Machine

Beat Machine is a unique drum sample editor. With it you can make a variety of changes to your beats. The most obvious is what has become commonly known as “beat slicing”. Beat slicing places markers at the beginning of each beat. These individual Slices are then mapped to specific keys on your midi/computer keyboard. The principle is such that you can take a

drum sample with different sounds such as a kick, snare, tom, hi-hat and crash; slice the sample, have these sounds mapped, apply different effects to each slice and then play them how you want.



- **Tracking:** When enabled, a Zone or Slice's pitch changes as you play different keys on the keyboard. This is important for pitched sounds. Disable it to have the Zone always play at its original pitch, without transposition. This is useful for layering a drum sound across several keys so you can trigger it with several fingers (to play rolls or to play it polyphonically) without affecting the pitch.
- **Reverse:** Reverses playback for the selected Zone or Slice.
- **Output:** This drop-down menu selects an audio output for the currently selected Zone. You have your choice of 8 stereo outputs. If you want to send a Sample only to one mono output, just select a stereo out and pan the selected sample to either full left or full right.
- **Sen:** Adjusting the Slice sensitivity creates more or less slice points in the sample, where extreme left leaves few Slices in the loop and increasing the value creates more Slices. Adding more precise slice markers is done by **right**-clicking (PC) or **CTRL**-clicking (MAC) in the Loop Editor. Likewise, removing or locking slice markers is done by the same action, only the mouse cursor must be on a slice marker to do so. The slice markers are freely moveable between the previous and next slice marker to any position to obtain more accuracy of beat slicing.

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This feature is only implemented in Global Edit Mode. After editing slices in Sliced Edit Mode, changing to Global Edit Mode will present a dialog asking if you want to remove all Slice Mapping. Inserting, removing and locking slice markers works in both edit modes.

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- **Loop:** Loops the selection. When a loop is made in Sliced Edit Mode it will snap to each slice if this is on.
- **CMD:** Pressing command presents a drop-down menu where you can export a midi file, remove all slice Zones, or select all slices.

## Beat Machine Sub Modes

Beat Machine has two sub modes, **Global** and **Sliced**, that present you with more flexibility for editing as well as adding Effects and Modulation to your samples. When choosing Beat Machine as a Mode for any Sample, INTAKT will default to the Global Edit mode.

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Each Edit Mode has it's own functions and therefore changing between them changes the available parameters even though you are still in Beat Machine.

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In **Slice Edit Mode** the Slice Mapping Keys are Turquoise in color. This distinguishes them from the original Loop from which they were mapped, which is Blue.

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## Global Edit Mode

The name implies this Mode's function. Like most things that are Global, Effects and Modulation are applied to the entire Sample or Loop. This is similar to Sampler Mode, with a few particular differences.

- Changing the Tempo stretches the beat without transposing the sound.

- There is a **Sync** button that enables Beat Machine to lock to INTAKT's Global Tempo or that of an external clock.

This mode is also where you will adjust the placement of the slice markers. When you are happy with how you have sliced your Sample, you can add any Global Effects to the whole Sample/Loop.

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It is worth mentioning that whatever changes you make in Global Edit Mode will be inherited in Sliced Edit Mode. They are essentially the same thing. However, once you have mapped the slices you can go back to the Global Edit Mode and make more changes without affecting the Slices.

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**Quantized Slices between Start and End Points:** Hold down the Option (Mac) Alt (PC) key while moving the Sensitivity knob quantizes the Slice Markers into symmetric divisions.

**X-Fade:** Enabling cross fade gives you the option to add an attack and/or decay envelope to your slices. This helps if your Slice Markers have not been placed on a zero crossing. In other words, it smoothes the transition between slices.

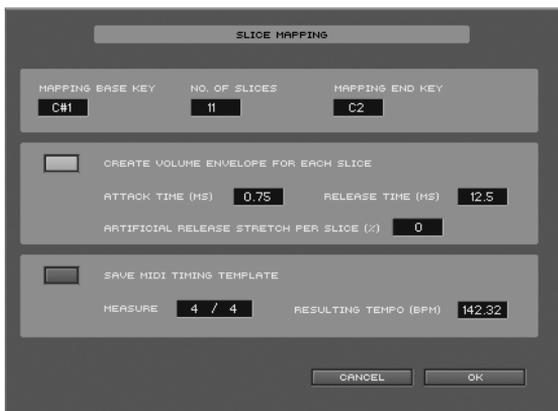
## Sliced Edit Mode

So now you have a sliced drum sample with a nice Lo-fi effect on it. This is where you come when you want to go even deeper in the slice editing spectrum. Clicking on the **Map Slices** button will open a dialog window where you customize your creation.

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Clicking on the **Map Slices** button changes the Edit Modes from Global to Sliced. The buttons remain there as a reminder of which Edit mode you are in.

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Here you have several options for deciding how you want to edit/map your Slices. Here is a brief explanation of these options:

- **Mapping Base Key:** Use this to decide where to map the Slices. Mapping goes from left to right. Closing the dialog window without making a selection defaults to the next key.
- **Number of Slices:** Choose how many of the Slices from your Sample you want mapped.
- **Mapping End Key:** The end key for your Slice map.
- **Create Volume Envelope:** Use this to give attack or release to each slice.
- **Save Midi Timing Template:** When this button is activated, closing the window opens a save dialog where you can export the Slice Mapping as a midi file. This feature is extremely valuable when you have perfectly Sliced your Sample and would like the sounds to be triggered in your sequencer in perfect time. Furthermore, once a midi file is created you can mix up the order of each beat.
- **Bars+Beats/Measure:** Input the samples length and the beat's measure here
- **Resulting Tempo:** This display shows the Loop's Tempo
- **Artificial Slice Stretch:** Smooths the transition between slices at slower tempos. Use this if you find that slowing the Sample down causes the Slices to be slightly clipped.

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Important: You can enter this dialog by pressing the **Sliced** button or the **Map Slices** button. Therefore, it follows that if you need to adjust Slice Stretching you will need to exit **Sliced Mode** by returning to **Global Mode**. Be aware that returning to Global Mode will remove all Slice Mapping, thus deleting any edits you may have made.

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Once you have made these settings you will not be presented with this dialog again, unless you remove all Slice Zones and then press **Map Slices** again.

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After these settings have been made the **Map Slices** button shows the Slices for editing or hides the Slices after you have made edits. If you want to play the Slices as individual Zones you have to leave this button activated.

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## Command Menu



- **Select all slices:** Selects all slices in the sample
- **Export Midi File:** Opens a save dialog where you can export your file into a time accurate midi file
- **Remove all slice Zones:** Removes the slice mapping from the keyboard
- **Randomize slice order:** Mixes up the playback order of your slices.
- **Sort slice order:** Puts randomized slices back in original playback order.

## Slice Editing

In addition to these settings above, when used correctly, Sliced Edit Mode has an enormous capability to transform your beats. In essence, this feature allows you to add effects and modulation, as well as change volume, pan, tune or output of individual or multiple Slices without touching other parts of the Sample. In this section some brief examples will be given to help you along your way.

### Selecting Multiple Slices to Edit

This primary feature will become more and more necessary as you want to process and mess up your beats.

As you click on each Slice in the Loop Editor or on each Slice Map on the Keyboard they become selected. Hold down the **Shift** key and click to select a range of Slices, or hold down **Command** (Mac) or **CTRL** (PC) and click to make individual multiple selections. The keyboard keys will depress to show that multiple Zones are selected. This is like using the **Latch** button.

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Selecting a Slice from within the Loop Editor when in Beat Machine Mode will play it back.

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Once these selections are made you can apply any changes you want. Say for example you have 4/4 loop and you want to have the snare reverse on each fourth beat, plus give it some delay. You would load the sample, switch the mode to Beat Machine, and press **Map Slices**. Now choose the base key (INTAKT defaults to the key after the original loop that you sliced). The slice map should now be a turquoise. Locate the snare slices. Simply pressing the key and then pressing reverse will activate the effect. Now press the delay header and adjust the delay. The snare slices retains those edits. Go back to the original Sample key, which should be recognized by it's blue color and play it. You will hear the sample, but this time with the changes you made to the snare. This example is quite simple, but you should get the idea on how to edit your Slices. You can also remove unwanted Slices from the

original loop by clicking on the Slices and pressing delete on your computer keyboard. This removes the unwanted Zones. Now the original loop plays without them. Alternatively you can **Mute** them which is explained below.

## Replacing and Rearranging Slices

With Beat Machine you also have the ability to replace slices with material from within the Sample. This is done by the section just above the Instrument Amp.



For example, you have a drum sample with some killer sounds that you like, but the hi-hat is not your style. Replacing this would make your Loop perfect. INTAKT allows you to make non-destructive edits like this one to your Sample. Just click on the Slice you do not like, the left box shows which Slice is selected and the corresponding key. By clicking on the right box you can choose the slice (denoted by Slice position) that replaces it or **Mute** the slice if it is really that bad.

A simple example will help you understand this better. Take a Sample with four slices. You want to replace Slice 4 with Slice 1. Click on Slice 1 and choose Position 4 from the right drop-down list. Now you hear the material from Slice 1 in Slice 4's position. Slice 1 is now muted, i.e. nothing is heard, because essentially it is moved. However, in Slice 4's position you still have two sounds, Slice 1 and Slice 4, but only Slice 1 is heard. This means that if you want, you can move Slice 4 to Slice 1's position. Thus, rearranging the slice order.

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When using this feature the Sample waveform will not reflect these changes, but they will be audible.

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These changes occur ONLY in INTAKT's internal sequencer and therefore, it should be mentioned that exporting a midi file will also not reflect these rearrangments. However, you will be able to trigger these changes with your external sequencer.

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## Time machine

Time machine is a granular synthesizer. It's designed to alter sample speed while preserving the original pitch information.



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When you switch from Sampler mode to Time Machine Mode, all selected Zones/Samples contained in the Instrument will be analyzed. The analyzing may take some time, depending on the size of the samples loaded for the Instrument and the CPU power of your computer. A progress bar shows the processing status.

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- **Tune:** Changes the selected Sample's pitch in semitone steps while preserving the length and speed of the Sample..
- **Speed:** Changes the playback rate independently of pitch. The Speed values are expressed as percentage: for example, 100% plays back the sound at original speed, 200% doubles the speed, 50% halves the speed, etc. A value of 0 means stop.
- **Tracking:** Switch this button on to have a sound's pitch track changes as you play different keys on the keyboard. This is used for pitched sounds. Switch it off if you want the sample to always play at its original pitch, without transposition.

- **Legato:** This feature preserves the sample playback position when switching between samples. If you hold a key while pressing another key with the Legato option enabled, the new sample will not be triggered from the beginning, but will proceed from the current sample position associated with the first key.
- **TRC:** This knob turns on/off the Transient Copy function which improves the sound quality of transient artifacts in the Loop/Sample.
- **TRS Knob:** Turning this knob controls how you change the size of the copied Transients. Choose lower values for short transients and higher values for longer transients.



**Sample Analysis Resolution:** Drop down menu that uses different frequency resolutions for analyzing the samples. This is useful depending on the source of your Sample. Guidelines are given according to size, i.e. tiny, small, medium and large. Naturally, large takes more time to analyze the Sample. Experiment with these settings to find out what is best suited for your material.

# The Modulation Section



*The Modulation section with an active envelope and LFO*

INTAKT includes two envelopes and two LFOs to help you shape and add movement to your sounds. The Envelope and LFO headers act as both on/off switches and switch the view to the selected modulator. Moving any knob automatically activates envelope to which it belongs. This eliminates the need to activate the envelope and then adjust the parameters. **CTRL**-click (MAC) or **right**-click (PC) on any knob resets it to default values if this is enabled in **Global Options**.

## Envelopes

Envelopes create a modulation curve over time for parameter control. INTAKT's envelopes are of the ADSR (attack, decay, sustain, release) variety, which is the most commonly found synthesizer envelope. The INTAKT envelopes include a Hold stage, creating an AHDSR envelope. A slight amount of hold time coupled with a fast attack is the secret of punchy synthesizer sounds, like basses and percussion sounds. The Pitch Envelope is "hard-wired" to its parameters, though the ADHDSR envelope can be assigned to one of a variety of parameters. When an envelope is activated, the header will "light up" a bright blue in color.

## Pitch Envelope



The Pitch Envelope is an envelope that has two separate Decay stages (DEC1 and DEC2) whose relationship is determined by a break control (BRK).

## AHDSR Envelope



To engage and access the AHDSR envelope, click on the AHDSR Envelope header in the Modulation section. When properly selected it will turn bright blue, you can then edit the parameters.

- **CRV:** Sets the amount and polarity of the curve of the envelope's Attack stage. You can use this to create sounds where the attack stage swoops in gradually (low CRV value), or where it starts more immediately with a steeper curve (high CRV value).
- **Attack:** Sets the time required for the envelope to go from 0 dB to its maximum level.
- **Hold:** Sets the amount of time that the envelope stays at its maximum level.
- **Decay:** Sets the time required for the envelope to drop from the maximum level, set by the attack and Hold controls, to the Sustain level.

- **Sustain:** Sets the level that will be maintained as long as the MIDI note triggering the envelope is held.
- **Release:** When the MIDI note is released, the Sustain parameter sets the time that the envelope decays back down to 0 from the sustain level.
- **Retrigger:** Allows you to re-trigger the envelope every time you play a key or send a MIDI note (i.e., the envelope starts from the same point each time it's triggered). If disabled, any key you play while another is down will not retrigger the envelope.

The AHDSR envelope's modulation signal output can be sent to a choice of destinations, rather than being "hardwired". The drop-down menu under the Retrigger switch lets you pick the modulation destination. You can use the AHDSR to modulate **Volume**, **Pan**, **Tune**, **Filter Resonance**, and **LFO 1-2 amount** and **speed**. The **Amount** slider at the far right sets the amount of modulation by the envelope sent to the destination.

## LFOs



*The LFO section.*

An LFO (or Low Frequency Oscillator) creates continuous modulation signals at sub-audio speeds. Vibrato and tremelo are examples of LFO signals that effect pitch and volume, respectively. There are two LFOs available in INTAKT, allowing you to create different modulation schemes. Each LFO is freely assignable to set modulation targets. You can activate an LFO by clicking on its header. The currently selected LFO will glow a bright blue.

## LFO 1/ LFO 2

- **Hz:** Sets the LFO speed in Hertz.

- **Amt:** Determines how much of the LFO is applied
- : Engages the sine LFO waveshape.
- : Engages the saw LFO waveshape.
- : Engages the square LFO waveshape.
- **Retrigger:** Activates LFO retriggering every time a MIDI note is received (i.e., the LFO starts over from the same point every time you play a key). If disabled, any key you strike while another key is down will not retrigger the LFO.
- **Sync:** Allows you to synchronize the LFO frequency to any incoming MIDI clock signal.

The drop-down menu below the **Sync** switch allows you to specify whether LFO 1 signal modulates Volume, Pan or Tune. While this menu for LFO 2 modulates Cutoff or Resonance

## Envelope Follower

The Envelope Follower translates the currently played sample's amplitude into a control signal. For example, a plucked guitar-string would generate an envelope with an instantaneous attack, followed by a decay that tracks the string's decay. The Envelope Follower will attempt to track any change in amplitude, down to individual cycles. Rapid fluctuations like this sometimes show up as distortion, but can be tamed using the Attack and Decay controls.



- **Attack:** Makes positive-going envelope curves smoother. Longer attack times create the same effect as if you were using an envelope with an attack time.
- **Decay:** Makes negative-going envelope curves smoother, providing a more even decay characteristic.

- **Gain:** Determines the Envelope Follower's sensitivity to the input signal.
- **Amt:** Determines how much of the Envelope is applied.

# The Effects Section



## *The Effects section*

INTAKT includes three time-based effects modules and a Master Filter for special effects. Any combination can be engaged simultaneously (as long as your computer has enough processing power). You can activate each effect by clicking on its header. When activated the effect header glows bright blue to let you know it is engaged. Furthermore, **Filter**, **Lo-fi** and **Distortion** are insert effects. They are linked in series and the order is changeable for each Slice, Sample or Zone. The **Delay** and **Master Filter** are send effects. Their order cannot be changed. As with the modulation section, moving any knob automatically activates the effects to which it belongs. **CTRL-click** (MAC) or **right-click** (PC) on any knob resets it to default values if this is enabled in **Global Options**.

## Filter

A filter shapes the frequency content of signals that pass through it. INTAKT includes a multi-mode filter. Engage it by clicking the header bar labeled Filter. There are six different filter types to help you shape your Instrument.



- **Cutoff:** Controls the cutoff frequency, or the frequency above which signals are attenuated, of the selected filter type.

- **Reso:** Sets the amount of filter resonance, or emphasis of frequencies at or just below the cutoff frequency.
- **Env:** Determines the amount of cutoff modulation by the Filter Envelope.
- **Key:** Adjusts key tracking for the filter cutoff frequency. High Key values cause the filter to sound brighter (to open more, basically) higher up the keyboard, while sounding duller (closing more) towards the bottom. This can mimic the effects of string tension on a piano (higher at the "top" of the keyboard, lower at the "bottom"), for example. When Key is set to zero, the filter frequency is unchanged by keyboard position.
- **Vel:** Controls how much effect velocity has on filter cutoff.
- **LFO:** Controls the amount of cutoff modulation by the Filter LFO.

Select the type of filter by clicking one of the buttons listed below.

- : Activates a 1-pole, or 6 dB per octave, low pass filter. Low pass filters reduce high frequencies while allowing low frequency signals to pass through.
- : Activates a 2-pole, or 12 dB per octave, low pass filter.
- : Activates a 4-pole, or 24 dB per octave, low pass filter.
- : Activates a high pass filter. A high pass filter leaves high frequencies in places, but attenuates below the cutoff point.
- : Activates a band-reject, or notch filter. A notch filter cuts a narrow range of the frequency spectrum without affecting frequencies above or below the notch.
- : Activates a band pass filter. A band pass filter boosts a specific frequency band, and cuts frequencies above and below the band pass range.

## Lo-fi

This module crunches up your pristine digital audio in a variety of harsh ways.



- **Preset:** Allows you to select from a variety of pre-programmed reverb settings.
- **Bit Rate (Bit Re.):** Chooses the sound's resolution. Fractional bit levels (such as 12.4 bits) are possible, which adds considerable "grit" to the sampled sound. 16-bit is CD quality, 8-bit is the resolution used by old samplers and drum machines, and 4-bit is the audio quality in many kid's toys and games. Lower bit resolutions screws up the sound even more.
- **Sample Rate (S.Rate):** This parameter reduces the sample rate. If you set the control to anything other than **Off**, you will get less than CD quality. The sample rate goes all the way down to 50 Hz, which will not leave much of the original signal. Come to think of it, playing too many sounds at that sample rate may not leave you with much of an audience, either!
- **Out:** The slider on the side determines the effects output level.

## Distortion

**Distortion** creates an overload condition that adds harmonics to a signal. The sound is similar to what you would obtain by overloading an amplifier.



- **Tube:** Distortion algorithm that creates a smooth saturation.
- **Tran.:** Short for Transistor. This creates a harsh clipping
- **Drive:** Determines the amount of distortion.
- **Damping:** Increasing damping lowers the distortion unit's integral Lowpass filter to reduce some of the harmonic content caused by distortion.
- The slider on the side sets the effects output. As distortion boosts the gain considerably, some attenuation is required.

## Delay

Produces echo effects. Very low delay times produce comb-filter and resonator-like effects. Higher time settings produce a noticeable echo compared to the dry signal.



- **Preset:** Allows you to select from a variety of pre-programmed reverb settings.

- **Sync:** Allows you to synchronize delay time to any incoming MIDI clock.
- **Time:** The interval in milliseconds between hearing the dry signal and the first delay of the echo signal. If the Sync switch is engaged, delay time can be set in musically-useful clock divisions by selecting from the drop-down menu below the Time knob.
- **FeedB:** Sets the Feedback amount. This sends a portion of the delayed signal back into the input of the delay line, creating multiple echoes. A value of zero produces only one repeat. Higher Feedback values produce multiple (up to infinite) repeats.

## Master Filter

When activated, the Master Filter acts as a global filter or EQ, affecting the entire signal up until this point. You can use it to emphasize or attenuate frequencies in your sound.



- **Preset:** This drop-down menu lets you access a list of EQ presets for altering your sound.
- : Engages a resonant 4-pole low pass filter. You can alter the frequency and resonance by clicking and dragging on the small green dot in the filter display.
- : Engages a resonant high pass filter. Alter the cutoff frequency and resonance by clicking and dragging the dot in the filter display.
- : Engages a resonant band pass filter.

- : Transforms the Master Filter into a three-band parametric equalizer. Each band can be adjusted for cutoff and gain by clicking and dragging its control dot in the filter display. **CTRL**-clicking on a dot sets the gain for that band to zero. You can adjust the bandwidth, or cutoff steepness, for each band by clicking and dragging up or down in the Bandw. text field to the right of the filter display.
- **Cutoff**: Lets you set the cutoff frequency for the selected EQ band or filter in Hertz by clicking and dragging up or down in the text field. You can also type in values by double clicking in the field.
- **Gain**: Sets the boost or cut of each EQ band or filter. Adjusts can be made by clicking and dragging or by double-clicking and typing in values.
- **Bandwidth**: In EQ mode, you can adjust the range, or bandwidth, of each selected EQ band by clicking and dragging in this field. You can also type in values by double-clicking on this field and entering numbers from the keyboard.

# Keyboard Section

The Keyboard Section is a standard virtual keyboard with Pitchbend, Modulation wheel and Transposition. It serves as a visual representation of your Sample Maps and which Modes are mapped to which keys, based on color. Sampler Mode is yellow. Beat Machine is blue (Slice Maps are turquoise), and Time Machine is red. When a sample is loaded (by dragging it from the Browser to the Keyboard) INTAKT defaults to Sampler mode. Therefore the key(s) are yellow. Changing the Mode causes the color to change as well. The keyboard can be minimized to save space by clicking on the minus in the upper left hand corner.



**Latch:** Pressing this button allows you to hold multiple keys down when samples are spread too far for your fingers to reach the appropriate keys. Simply press **Latch** and then press the keys you wish to edit. They will remain depressed until you unlatch them. This feature works well for the Beat Machine when you want to apply an effect to many Slices.

**Transpose:** Clicking the left or right arrow transposes the keyboard view one octave.

**Keyboard Options:** Clicking on **Options** just above the wheels opens the following Keyboard Options dialog.



- **Pitchbend:** Adjusts Pitch in semitones.

- **Modwheel:** Here you can set the amount of Modulation (slider) and which parameter (drop-down menu) is modulated. Modulation destinations are **Volume**, **Pan**, **Filter Cutoff**, **LFO 1** amount, **LFO 2** amount, and **Delay** amount.
- **Input Quantize:** Input Quantize quantizes key input to INTAKT's internal clock. There are three options. **Note on only** quantizes just the beginning of each sample. **Note on and off** quantizes the beginning and end of each sample and **Off** deactivates this feature. You can set the quantize mode below.
- **Key Follow:** Enabling this refreshes the display and settings with that of the Zone each time another key is pressed.

## Zone and Root Key Mapping

As stated before Mode mapping is indicated by color. However, it is equally important to know the Zone mapping too. Since the possibility does exist that you may have two different Samples with the same Mode. For this reason there is a Zone Map indicator just above the Keyboard and a Root Key indicator just below the Keyboard.

## Zone Management

**Zone Map Indicator:** This turns red to indicate a selected Zone.

**Moving Zones:** Mouse over the top of the Zone, just above the keys, where you see the Zone Map Indicator. Adjust the mouse position until the mouse cursor becomes a crosshair. Now it is possible to drag the Zone Map to another place on the keyboard.

**Copying Zones:** Zone copying can be done by **right-clicking** (PC) or **CTRL-clicking** (MAC) on a Zone and then selecting **Copy**. Choose a new location within the keyboard and then use the same function to **Paste** the Zone. This applies for single Zones only.

In addition, holding ALT (Mac) or CTRL (PC) and dragging the selected Zone makes a copy as well. All copied Zones include the parameters set for the specific Zone.

**Lengthening/Shortening Zones:** Using the same function as moving Zones, lengthening Zones is done by moving the mouse cursor to the extreme left or right of a Zone Map Indicator. The mouse cursor changes to a bi-directional arrow and you can now shorten or lengthen the Zone.

---

Holding **Shift** before selecting a Zone changes the Zone Mapping behavior. The Sample Map/Keys turn green and now you can move the Zone to another place on the keyboard. Placement of the mouse cursor towards the top of the keys will map the Sample one octave, while lower placement maps the Sample just one key.

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## Removing Zones

- Select the Zone you wish to remove by first pressing the key.
- Press **Backspace**

---

To remove all Zones, select **File-> New Instrument**. This removes all the set Zones.

---

## Moving Root Key Mapping

Underneath the Keyboard the root key is indicated by a small triangle. This can only be moved within the Zone. Click on it and drag it left or right. This feature only works if **Tracking** is enabled.

## Zone/Slice selection (no Slice/Zone audio preview)

Moving through Zones and Slices can be done by using the left/right arrow keys on the computer keyboard. This removes the need to use the mouse in order to select a Zone for editing. This option disables Zone/Slice audio preview. Toggling through Zones goes from left to right across the range of the mapped keys.

# Getting Help - The About Screen

If you can't find out the reason for a problem, Native Instruments provides extensive help to registered users. The relevant links are gathered by clicking on the NI logo in the upper right-hand corner of INTAKT. This opens the About screen.

## Knowledge Base / Readme / Online Support

Choose the support tab of the About Screen to find a series of buttons directly leading you to the Native Instruments Online Knowledge Base and to the Online Support frontend.

The frontend will ask you for all information about your hardware and software environment, to better facilitate the information to our support team. The entries you make are cookie'd, so they should be automatically reproduced when you enter a second support request.

In your communication with the support team, keep in mind that you should offer as much information as possible about your hardware, your operating system and the version of INTAKT you are running, to give the possibility to help you. In your description, you should mention:

- how to reproduce the problem
- what have you already done to try to fix the problem
- a description of your setup, including all hardware
- the brand and specs of your computer

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**Important:** Always consult the Readme file of a new software version. It contains important information and all last minute changes, that weren't available when printing this manual.

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## Forum

On the Forum tab of the About Screen is a button directly connecting you to the Native Instruments User Forum where you can discuss problems directly with other users and with experts from NI, moderating the forum.

## Updates

Whenever you encounter problems, you should also check if you have installed the latest update. The version number of your software is displayed on the first page of the About dialog. Updates are released regularly to fix known problems and to constantly improve the software. You can find a link to check for the latest update in the About dialog, in the Readme file, or by checking on [www.native-instruments.com](http://www.native-instruments.com).



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