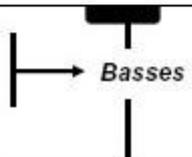# String Essentials

User Manual

What is new in the Second Edition

1. All the patches can be played in any scale beyond major/minor – like Arabic, quarter tone etc.- and perform any intervals using the **Microtuning** tool.
2. New script-powered program group "**Variable Length**" enables performing notes of any length between approximately 0,3 to 2 sec. using CC23 or the virtual knob "Length" on the instrument GUI. Unlike the similar category in the first edition these patches use script controlled solutions and optimised settings for better quality and less CPU load.
3. New, script-powered program group "**Advanced Legato**" enables very realistic phrasing and legato transitions.
4. "**Light**" versions are available also for ambient and dry patches.
5. **Single Patches**. Each articulation / playing technique which can be accessed in the complex programs via Key Switches are now also available as separate patches enabling any individual, user definable MIDI-switched combinations. ("normal" mic placement only).
6. After an instrument has been loaded, the very first key stroke initializes the **controller default settings** (it is no more necessary to move all the assigned controllers before playing)

Quick Start

1. Install and activate Complete Orchestral Collection.
2. Print the pdf file "Play Me First" placed in the folder "Print it (KSwitch assignment)", or display it on the monitor. If you have a 7–octave– or a second keyboard, put the print above the keys C0-B0

String Essentials multi – instrument: *Play Me First*

3. Start the Player double–clicking on it.
4. *Load the patch „Play Me First" (Multis / Play Me First (Demonstration) / Play me first)*
5. *If you experience any difficulties with too little memory, decrease the DFD buffer setting (refer to the Player Manual for further details). If your Mac/PC has 1 GB RAM or less, choose the "light" version (Multis / Multis [light] / Play Me First [L] (Demonstration) / Play me first)*
6. Press any key(switch) between C0 and B0 to choose the articulation you need. To activate the Key Switches you can also click on the virtual keyboard of the Kontakt Player.
7. Play and enjoy the sound. Move the ModWheel and the active controllers on the Kontakt Player GUI (Graphic User Interface) to hear how they influence the sound. **Please note that in certain modes not all the controllers are active**. Please refer to the Quick Reference Table "Play Me First" at the end of this manual.
8. If your MIDI keyboard has only 5 octaves, please use the transpose function to reach the appropriate range.

Please note: in the sustained categories (key switches C0, D0 – E0) you can either use the ModWheel for cross–fading between the dynamics (*crescendo–decrescendo*) or turn it down to "0" to activate the velocity control mode. If playing "Variable Length" (KSwitch F0) the sample length can be altered with the knob "Length" (CC23). If you are using this software as a stand-alone application, you can also load "Play Me First" including reverb *(Caution: high processor load)*.
Due to some advanced features please refer as soon as possible to the further parts of this manual to learn more about the sound shaping via MIDI parameter, program content and key switching.

Important notes for Kontakt <u>Sampler</u> users.

If you have a Kontakt Sampler you have the possibility to access the "inside" of the patches and modify or reprogram them in any way. However, **before** using the Kontakt Sampler software, it is necessary to do the following:

1. Make sure the library is correctly installed and authorised
2. If the patch you have loaded uses key switches (many of them do), it is necessary to press one before you play.
3. You can also install the player in parallel to your sampler and use it alternately.

Remarks to the naming conventions

velo – refers to a patch in which the different dynamic layers (*pp*, *mf*, etc.) are controlled via velocity only.
cresc – refers to a patch where crossfading between the layers – thus continuous dynamic change – is possible. This option needs three (stereo-) voices per note.
[Light], [L] – light patches using less samples per octave, thus less memory (42%).
[Dry], [D] – uses samples recorded with microphones placed close to the instruments.
[Amb], [A] – uses samples recorded with distant microphones capturing the studio ambience.

Controlling the parameters via a MIDI controller.

String Essentials provides the possibility to control numerous sound properties via a MIDI controller (ModWheel, Pitch Bend and CC 20 – 27). The following is just a general description as the detailed parameter assignment may vary from patch to patch. For full description see the detailed program description further in this manual or the Quick Reference Tables at the end of the booklet.

- **ModWheel** if applicable, controls the dynamics or level, or switches between different modes depending on its position. For example: In the patches with looped samples (key switch C or D–E) the mod wheel controls the crossfade between the layers (from pp to ff) enabling realistic crescendo/decrescendo. However, at its "zero position" it switches over to the velocity mode, i.e. the player controls the pp, mf or ff layer via <u>velocity</u>.
- **Pitch Bend** if applicable, controls parameters like glissando, portamento depth or run start shift.
- **CC20 (Slope** or **Expression)** if applicable, controls the attack time or the "swell", i.e. the amount of a slight crescendo after note-on. <u>Additionally</u>, in the patch Main Setup, setting this parameter to 127 recalls the program "automated crescendo".
- **CC21 (Attack)** if applicable, emphasises the bow stroke (attack) at the very beginning of the sample.
- **CC22 (Release)** controls the length of the release trigger samples. If set to "0", the release trigger is deactivated, thus the CPU and hard disk load reduced.
- **CC23 (Tempo** or **Length)** if applicable, controls the tempo of the runs and portamentos, or – in the patch "Variable Length" and "Advanced Legato" – the note length.

- **CC24 (Accent** or **Add as accent)** applicable only in "Advanced Legato" or in some combinations with the patch "Staccato". Controls the amount of accent by adding staccato to any other articulation.
- **CC25 (Transition Density)** applicable in "Advanced Legato" only. Enables faster transitions between the Variable Length notes.
- **CC27 (Convolution Reverb)** controls the amount of the high quality convolution reverb in the demonstration patch Play me First

Validity of the MIDI-controllers in the complex key switched patches

Please note that especially in the key switched patches like Main Setup the CC controllers and their names do not necessarily apply to every key switch. For example: the fact that after loading the patch "Violins Main Setup" the controller "Attack" (CC21) appears on the GUI, means solely that it applies to some (not all!) key switches. Whether it´s active or not depends on the particular articulation you´ve chosen with the key switch. Please refer to the descriptions of the controller assignments above or in the Quick Reference Tables to find out more details.

Microtuning Tool

In order to perform a patch in any scale beyond major/minor – like Arabic, quarter tone etc.- click on the button "Controllers" on the instrument GUI, choose the option "Microtunig" and enter necessary settings.

General library architecture

The most complex unit of String Essentials is the "Multi–Instrument" or "**Multi**", which consists of a group of instruments. Most of the instruments contain different sound categories or articulations which can be accessed via Key Switches. Some of the Key Switches may contain further different modes which depend on a particular parameter setting.
Some more specialised patches like Variable Length, Runs 140, Glissando and Repetitions can be found in the folder "**Special Patches**".
Nearly the same program structure can be found in the folders "**Ambient**" and "**Dry**". The A or D in their names mean that they use ambient or dry samples only. For further details concerning ambient and dry samples see below.

Each articulation accessible in the complex patches via Key Switches can also be loaded separately and switches using different MIDI channel assignment. This group of programs is available in the "normal" category (i.e. "neutral" microphone position) and can be found in the folder **"Single Patches"**

The folder "**Light Versions**" contains reduced memory patches.

Generally **all the setups** (besides Runs and Pizzicato) use **3 dynamic layers**: piano (*p*, soft), mezzoforte (*mf*, medium) and fortissimo (*ff*, very loud), some of them – 4 (with additional short *fff* samples of maximal intensity). **Release trigger** is basically **activated**, but can be switched off (see description of the MIDI parameters above).

"Normal" vs. "ambient" and "dry"

String Essentials uses samples recorded with 3 different mic placements in a large recording studio. In most cases you will probably find the "normal" samples as the most suitable. They have been recorded using optimal, "neutral" mic placement.

In order to meet different requirements, however, two other mic placements have been used. If you prefer dry, direct sound character, you can use the programs in the "Dry" folder (with "D" in their names). The dry samples have been recorded using a number of close spot mics mixed together.

For smoother, more reverberant and "classical" sound character you can choose programs in the "Ambient" folder (with "A" in their names). The ambient sound was achieved by two spaced apart mics capturing the studio ambience.

Surround

If you need a surround sound image, you can use "normal" and "ambient" samples for the front and rear speakers respectively. The result is a very natural, impressive surround sound, as the mic placement corresponded exactly to that used for surround recordings.

Light versions

If you experience any difficulties with the RAM capacity, hard disk streaming or the CPU load, use the light versions. Although they use a reduced number of samples per octave – thus less then 50% of memory – they still maintain a surprisingly high sonic quality.

Detailed patch descriptions

Actually, you can play the library right now using the "learning by doing" method. However, to avoid too much experimenting and searching, please give some attention to the following and learn the details. It is really not so difficult as it seems…

Advanced Legato (new in the Second Edition)
(Path: Instruments / Advanced Legato)

Advanced Legato is a comfortable one-(stereo) voice-patch for creating realistic and expressive phrases. It uses two important tools:

1. Legato; while playing overlapping notes the integrated script performs optimised transitions between them.

2. Variable Length; no doubt: the end of a sample is nearly as important as its beginning (attack). Frequently the decrescendo-like articulation at the end of a note corresponds to a certain (relatively long) build-up of the beginning and cannot be imitated with the (rather short) release samples. This very typical ascending and descending intensity of a string instrument can be now easily applied with full realism: the user can adjust the note length perfectly fitting his phrase, preserving its original intensity envelope, thus its musical character. This patch is also using

multiple staccato samples for more performance freedom and as a flexible "accent tool" (see below).
Advanced Legato uses the following MIDI-controllers:

Dynamic Level (CC1/ModWheel): controls the level and switches between the *pp*, *mf* and *ff* of the Variable Length samples; controls the dynamics by crossfading between *pp*, *mf* and *ff* if used with looped samples (see below)

Transition Shape (CC20): controls the attack or transition curve; important parameter for optimising the transitions between the legato notes

Transition Intensity (CC25): controls the starting point of the legato notes if used with Variable Length; controls the attack intesity if used with looped samples (CC23 = 127)

Length (CC23): controls continuously the length of the samples between approximately 0,3 and 2 seconds if between 0 and 125. If set to the maximum (126 or 127), sustained looped samples of any length (till release) can be played

Release (CC22): controls the length of the release samples only (see "Important Notes" below)

Accent (CC24): controls the mix between the samples described above and the staccato samples. It can be used for adding some attack or initial accent, as well as for easy and natural "switching" between staccato (if played extremely short, before the sustained samples reach their audible level) and non-staccato (if the key remains depressed long enough). This is a "static" controller, i.e. it is not intended to be permanently changed during the performance. The current amount of staccato can be controlled by the velocity.

Important Notes:
- release samples are intended to be used mainly with the looped sustained samples, i.e. if the "Length" (CC23) is set to the maximum. They are triggered not only on release, but also on any interruption due to an overlapping legato note on. This adds much more realism to the legato transitions.
- For the above reasons the best legato transitions between two notes can be obtained if the first of both notes is a long looped sample (CC23=127). Whether the following note should be still a looped sustained or fixed length sample depends on whether the legato series continues or stops.
- The Variable Length samples (set by the CC23<126) work perfectly as "stand-alone" notes or as the "end notes" finishing a series of legato notes. So, since they are intended to be played in their full length, the release samples are basically not necessary. Nevertheless, in case you check briefly some phrases and interrupt these samples before they end, release samples will be also triggered. This is in order to avoid unnatural envelope-only release and to maintain a consistent sound quality.
- In some very rare cases an accidental "disadvantageous" summing up of the waveforms in the middle of the Variable Length sample may take place, leading to an audible "glitch", i.e. a short discontinuity of the sound intensity or timbre. This can be easily avoided by changing the CC23 ("Length") slightly, without noticeably affecting the sample length.
- The dynamic level of the long looped samples can be continuously changed via CC1 (ModWheel) enabling any crescendo/decrescendo between *pp* and *ff*. The Variable Length samples – since relatively short – are intended to be played on a fixed dynamic level. In this case CC1 controls their volume and recalls the right *pp*, *mf* or *ff* samples according to its initial position.

Key-switched INSTRUMENTS

These instruments consist of a number of categories (sounds) assigned to different key switches. The key switch range is C0 – B0 for Basses and Cellos, C1 – B1 for Violas and Violins. Generally speaking, the key switches are always on the left side, covering the range of an octave from C to B, possibly close to the instrument range. Some key switches allow different modes, depending on the parameter settings. **Please note: after loading, it is necessary to press a key switch before playing.**

1. MAIN SETUP (Violins, Violas, Cellos, Basses)
"Main Setups" include samples of various lengths from looped sustains to quarter notes (approx. 0,5 s), trills and tremolo – all in 3 or 4 dynamic layers (*pp, mf, ff, fff*), pizzicato and fast runs. Please note that for technical reasons staccato is not included and must be loaded extra. The key switches start with the longest (looped) samples. The higher the key, the shorter the samples, so the order is: various looped categories, whole notes, half notes, quarter notes, staccato, fast runs. The exception: pizzicato, which is assigned to F#.

The key switch and controller assignments are:

C   Sustained looped samples

Possible modes:
- velocity controlled sustains, **if ModWheel = 0**; 3 layers
- xfade–controlled multi–layer sustains (crescendo/decrescendo), **if ModWheel > 0**
- 4th layer for crescendo climax **on release, if ModWheel = 127** (max)
- AutoCrescendo, **if Expression = 127** (max); ModWheel controls the time

Assigned controllers:
- Expression / Slope (CC20); works in velocity mode only
- Attack (CC21); works in xfade mode only
- Release time (CC22); zero–position deactivates the release feature
- Accent (CC24); works only if staccato loaded

If the ModWheel is set to "0", 3 dynamics (*pp, mf, ff*) are controlled via **velocity**. Above "0" the ModWheel controls the **cross-fade** between the layers using carefully programmed loudness curves, providing natural dynamic control, crescendo/decrescendo, etc. (please note: in this mode triple amount of voices is needed). An additional **release feature** emphasizes the **crescendo climax** adding a short *fff* sample of maximal loudness (which cannot be looped) **after** the key has been **released**. This "loudest stroke on release" requires that the ModWheel is on its maximal position (CC1 value127) at the moment of the key release. Otherwise the sample will stop in a conventional way.
Please note that in the cross-fade mode (ModWheel >0) the velocity still **slightly** controls the volume. The **AutoCrescendo** mode is activated when the Expression controller (CC20) is turned fully clockwise to its maximum setting (value 127). In this mode the player automatically performs a crescendo from *pp* to *ff*, its length being dependent on the position of the ModWheel – the lower the ModWheel value, the longer the crescendo. Also, the "loudest stroke on release"– feature works here as well: just move the ModWheel to its maximum setting (value 127) during the crescendo, and at the right moment release the key.

C#   Portamento glide (1 voice only)

Possible modes:
- Velocity–controlled multi–layer sustains in monophonic mode, 3 layers
- Portamento (if Pitch Bend is moved out of its middle position)

Assigned controllers:
- Pitch Bend ("Glide Interval"); controls the portamento interval
- Expression / Slope (CC20)
- Time (CC23); controls the portamento time
- Accent (CC24); works only if staccato loaded

To get the portamento / glide effect move the Pitch Bend in either direction. The effect meant here is a **pitch glide upwards**, leading to the target pitch. To get more realism, there are two layers with different portamento curves. This creates the typical initial detune until both sounds reach the perfect target pitch. The Pitch Bend controls the start pitch (down to 1 octave). With the button "Tempo" you can control the portamento time.

D   **Tremolo (looped)**
D#   **Trill (half step, looped)**
E   **Trill (full step, looped)**

The key switches above use a very similar setup like **C** (looped sustains):

Possible modes:
- velocity controlled tremolo/trill (ModWheel = 0), 3 layers
- xfade–controlled multi–layer tremolo/trill (crescendo/decrescendo) if ModWheel > 0

Assigned controllers:
- Expression (CC20); active in velocity mode only
- Attack (CC21); active in xfade mode only
- Release time (CC22); zero–position deactivates the release feature
- Accent (CC24); works only if staccato loaded

F   **Whole notes**

Possible mode:
- velocity controlled whole notes (approx. 2 sec.), 3 layers

Assigned controllers:
- Expression/Slope (CC20)
- Attack (CC21)
- Release time (CC22); zero–position deactivates the release feature
- Accent (CC24); works only if staccato loaded

The names "whole", "half" or "quarter notes" refer to 120 bpm. Whole notes are samples of approximately 2 sec. length. Their amplitude envelope, thus the character, is different from the sustained notes. Releasing the key earlier than 2 sec. provides a smooth transition to the release sample. Please avoid releasing the key in the decay phase, since due to the technical reasons the optimal transition cannot be maintained (in this case keep the key pressed untill the end of the sample).

F#   **Pizzicato**

Possible mode:
- velocity controlled pizzicato with alternation switch (double)

Assigned controllers:
- Attack (CC21)

G   **Half notes**

Possible mode:
- velocity controlled half notes with alternation switch (down– and up–bow), 3 layers

Assigned controllers:
- Expression (CC20)
- Release time (CC22); zero–position deactivates the release feature
- Accent (CC24); works only if staccato loaded

Expressive and lively, velocity controlled 1 sec. long samples from *pp* to *ff*. Repeated key strokes play down– and up–bow samples alternately. Releasing the key earlier than approx. 1 sec. provides a smooth transition to the release sample. Please avoid releasing the key in the decay phase, since due to the technical reasons the optimal transition cannot be maintained (in this case keep the key pressed until the end of the sample).

G#   **Quarter notes**

       Possible mode:
- velocity controlled quarter notes, 3 layers

       Assigned controllers:
- Attack (CC21)
- Release time (CC22); zero–position deactivates the release feature
- Accent (CC24); works only if staccato loaded

Velocity controlled relatively short, straight bow strokes of max. 0.5 sec length. Releasing the key earlier than approximately 0.5 sec. provides a smooth transition to the release sample. Please avoid releasing the key in the decay phase, since due to the technical reasons the optimal transition cannot be maintained (in this case keep the key pressed until the end of the sample).

A   **Staccato**
       (must be loaded separately unless you use a multi)

       Possible mode:
- velocity controlled staccato samples, <u>quintuple</u> alternation switching, 3 layers

       Assigned controllers:
- Attack (CC21)
- Slope (CC20)
- Release time (CC22)
- Add as accent (CC24)
- Violins only: ModWheel (activates the Falls)

Very expressive and lively, velocity controlled staccato samples from *pp* to *ff* (3 layers). Repeated key strokes switch alternately between 5 (!) samples per layer. The "Slope" is the opposite parameter of "Attack". "Add as accent" lets you mix the staccato samples together with other key-switched articulations.
The patch "Violins Staccato" let you also play violin falls. To activate them, turn the ModWheel fully up. To play both – staccato and falls – without switching, simply hit the key briefly to hear only the staccato samples and keep the key pressed longer to reveal the fall.
Due to technical reasons the key switch "A" in the Main Setup is just reserved for Staccato and normally "empty." To use staccato it is necessary to load it separately unless you have loaded a multi–instrument.

A# / B   **Fast Runs downwards / upwards**

       Possible modes:
- velocity controlled fast runs of any length, fitting any key
- ornamentations

       Assigned controllers:
- Tempo (CC 23)
- Pitch bend (controls the start shift)
- ModWheel (volume)

Very fast, "universal" runs with start–stop feature, fitting any minor or major key; can also be used as a powerful ornamentation tool. Pressing and holding a key starts the run beginning from the corresponding pitch. Pressing a second key (**still holding the first one**) plays a short target

tone and stops the run. The only thing you have to watch is the moment the run has to be stopped. In order to play the (short) target tone with its natural decay, play it shortly. Of course, while playing a run you have enough time to switch over to any other category – e.g. whole notes, using the key switch F – thus ending the run with a longer note.

By playing very short runs you can create very realistic ornamentations. For example, play **and hold** the C4 followed after a short moment by D4. The result will be a note (in our case D4) with preceding ornamentation (in our example **C4**–D4–E4 – assuming that you press the second key early enough and interrupt the run behind E4). There is also a more advanced run start shift feature: normally the run sample itself starts just "behind" the start note (which is a modified staccato sample). Turning the pitch wheel up or down, however, moves the start marker, so that the run starts above or below the start pitch. The more you turn the pitch wheel, the bigger the interval between the first note you play and the start note of the sampled run. If, for example, you recall the Runs Downwards (pressing the key switch A#), move the Pitch wheel just slightly **up**wards – so that the run starts a major third higher – and play, as in the above example, C4 followed by D4, the result will be quite different: **C4**–E4–D4–C4–**D4**. Combining different start and target notes with different run directions and using the run start shift feature you can create nearly any possible ornamentation.

Although the fast runs work in many tempos, you can still make them faster or slower using the Tempo button (CC23).

The ModWheel controls the volume to some extent enabling continuous changes of intensity. Please note that due to technical reasons the start shift feature works only in original tempo (Tempo=50% or CC23=64.)

2. STACCATO – see **MAIN SETUP** above, key switch **A**

3. FULL STRINGS 1 & 2

Ideal for composing, arranging/orchestrating or just experimenting. Offers a full range of the string ensemble – from C0 to C6. Full Strings use the same key switch assignment like the **Main Setup** (see above). For technical reasons they had to be divided into two separate patches: Full Strings I, containing the key switches C – E, and Full Strings II – with the key switches F – B (including staccato). If you load the multi "Play me first" or "Full Strings [L]," both patches will be loaded automatically.

For detailed description please refer to the patch **Main Setup** above.

MULTIS

"Multis" or "Multi–Instruments" contain 2 or more instruments (patches). Violas, Cellos and Basses consist of the patches **Main Setup** and **Staccato**. The Multi "Full Strings" consists of "Full Strings I" and "Full Strings II."

The Demonstration Multi "**Play me first**" is maybe the most suitable patch for composing or orchestrating. It consists of "Full Strings," "Variable Length" and "Fast Runs" (Violins only).

There are two versions of the multi "Play me first": without and with the high quality convolution reverb. Turning the reverb (CC27) to "0" deactivates it and reduces the CPU load.

The Key Switches used in the Multis are nearly the same as in the Main Setup described above – with the following exception:

Key switch F: activates the patch Variable Length. For further details see "Variable length" in the group "Special Patches" below.

SPECIAL PATCHES

1. VARIABLE LENGTH (New version in the Second Edition)

Possible mode:
- samples with adjustable length from approx. 0,3 to 2 sec. and "conventional" looped sustained samples, 3 layers

Assigned controllers:
- Length (CC23)
- Slope (Expression) (CC20)
- Release length (CC22)

Key switches: none

If you need expressively played notes – with a kind of crescendo at the beginning and a decrescendo at the end – you will soon realise that using (short) release samples are often not good enough. You need the much longer, natural decay phase of the note. The most realistic would be samples of the particular length you need. For this purpose the patch Variable Length has been created. After loading it, you will hear samples which are approximately 1 sec. long. With the knob "Length" (or your external controller CC23) you can vary the length between approximately 0.3 and 2 sec. changing the controller values from 0 to 125. If the knob "Length" is set to the maximum (CC23=127), notes of any length (till release) can be played.
"Variable Length" is also used in its monophonic version in the patch "Advanced Legato", hence some details described there apply to both patches. Here they are again:

Dynamics (CC1/ModWhell): controls the level and switches between the pp, mf and ff of the variable length samples; controls the dynamics by crossfading between pp, mf and ff if used with looped samples (see below)
Slope (CC20): controls the attack curves
Length (CC23): controls continuously the length of the samples between approximately 0,3 and 2 seconds if between 0 and 125. If set to the maximum (126 or 127), sustained looped samples of any length (till release) can be played
Release (CC22): controls the length of the release samples only (see "Important Notes" below)

Important notes:
- Release samples are used only with the looped sustained samples, i.e. if the "Length" (CC23) is set to the maximum.
- Since Variable Length samples are intended to be played in their full (adjustable) length, no release samples are used. Unlike Variable Length used in the Advanced Legato, they are polyphonic.
- In some very rare cases an accidental "disadvantageous" summing of the waveforms in the middle of the Variable Length sample may take place, leading to an audible "glitch", i.e. a short discontinuity of the sound intensity or timbre. This can be easily avoided by changing the CC23 ("Length") slightly, without noticeably affecting the sample length.
- The dynamic level of the long looped samples can be continuously changed via CC1 (ModWheel) enabling any crescendo/decrescendo between pp and ff. The Variable Length samples – since relatively short – are intended to be played on a fixed dynamic level. In this case CC1 controls their volume and – depending on its initial position – activates the pp, mf or ff group.

2. GLISSANDO

Possible modes:
- Upward glissando
- Downward glissando (if sustain pedal depressed)

Assigned controllers:
- Detune (CC20)
- Sustain pedal (enables gliss. down)
- ModWheel (controls volume)

Key switches: none

Using this patch you can play any glissando up or down to 1 octave. You won´t hear any unwanted transposition side effects, as turning the pitch bend up or down transposes the pitch by no more than +1/–1 semitone and cross-fades seamlessly to the next (higher or lower) sample. Also to maintain the realism, the program uses two layers which perform the pitch gliding simultaneously in a slightly different way – exactly like the orchestra musicians do. Every musician approaches the target note in his individual way. Thus the intonation is widely spread in the middle of the glissando, but ends up at the perfect tuned target note.
Please note that the intensity of this "out–of–tune–effect" depends on the glissando speed.
To match the detune intensity with the tempo you need simply choose one of the three available presets: for faster glissandi leave the **Detune** knob at its zero–position. For slower glissandi use the middle, and for very slow ones – the fully clockwise position.
To play a glissando upwards, simply turn up the pitch bend. To play a glissando downwards, however, it is necessary to turn the pitch bend down **and to depress the sustain pedal**. (This solution was necessary to reduce the excessive number of voices.)

3. REPETITIONS

Possible modes:
- half– and quarter notes with triple and quintuple alternation switch
- as above – monophonic mode (sustain pedal depressed)

Assigned controllers:
- Slope (CC20)
- Tempo (CC23) (decay shape)
- Attack (CC21)

Key switches: G – Half Notes; G# – Quarter Notes

This somehow experimental patch lets you play multiple down– and up–bow repetitions of the same note as well as regular sequences in slow or moderate tempos. To ensure seamless legato–like transition between the notes the sustain pedal should be constantly depressed and released just before releasing the key of the last note. The key switch **G** activates half notes, **G#** – quarter notes (related to approximately 120 bpm). The original samples in their full length consist of a series of 3 half notes or 5 quarter notes played legato on the same pitch (down– and up–bow alternately). However, the program never reproduces them in their full length at once. Instead, they are patched in such a way that pressing a key plays only one section of the sample or, strictly speaking, a half or a quarter note. If you press the same key again, the alternation switch will play a different section of the sample. Thus it cycles between 3 half notes (key switch G) or 5 quarter notes (key switch G#).
Please note that the release trigger works only if: 1. the sustain pedal **is not** depressed and 2. you release the key early enough. Since the sections are just cut out of a series of notes, you have to release the key (or play the next note) **before** the section ends. Otherwise it stops without any natural decay or ambience.
To optimise the amplitude envelopes according to the tempo, try different settings of the slope, attack or tempo parameter. The "Slope" creates a softer attack, whereas the "Tempo" in this case

changes the length of the section so that the decay can start shortly before the next note is played. Optimal results need some experimenting with all 3 parameters.

Please note that the parameter "Tempo" which shapes the decay for better matching the tempo is only active for the half notes (key switch G) in legato mode (sustain pedal depressed).

4. VIOLINS RUNS 140 (downwards / upwards)

Possible modes:
- runs of any length, in any key, approximately 100 – 170 BPM,
- ornamentations

Assigned controllers:
- ModWheel (controls the direction)
- Tempo (CC23)
- Pitch bend (controls the start shift)

Key switches: C1 – B1, corresponding to the major key

The "Runs 140" work exactly like the Fast Runs. To learn the details about how to apply them using the start–stop feature and ornamentations please refer to the key switch A# / B in the Main Setup section above.

Unlike the Fast Runs, the "Vn Runs…" or "Runs 140" have a defined major/minor key. They are originally played in 140 bpm, but their tempo can be altered using the Tempo knob (CC23). To enable convenient switching between upward and downward runs, the ModWheel has been divided into two sections: moving it in its upper half (between 50% and 100%) activates the runs upwards, in the lower half (0 – 50%) – the runs downwards.

The polyphonic version ("**poly**") enables more complex, polyphonic structures – however, without the start/stop feature.

To recall a particular major/minor key press the appropriate key switch. For example, if you need F major (or d minor), press F1, for G# major (or d–minor) press G#1, etc.

To load just one major/minor key, please use the "Violin Runs" in the folder Single Patches > Violins > Violins Runs.

Please note: keys which do not belong to a particular major or minor key are not mapped (only the initial staccato note can be heard). For example: if you load the D–major run, the keys D#, F, G#, A# and C are not mapped as they do not belong to the D–major key.

The Runs 140 are available for violins only.

SINGLE PATCHES

No doubt – instruments like Main Setup are convenient, but memory demanding patches. If you need only a part of the offered articulations/playing techniques, you will certainly prefer your own, MIDI-switched setup using Single Patches. Single Patches are simply "members" of the Main Setup stored separately without any key switching. For further details please refer to the section "Main Setup" above. Also the Violins Runs 140 (see Special Patches) are available in this folder as single patches in all 12 keys which can be loaded separately.

Please note that instruments like Advanced Legato and many of the Special Patches do not use Key Switches as well.

Final Notes

Key switch assignment

The pdf files placed in the folder *Print it (KSwitch assignment)* show the key switch assignments used in all instruments and multis. You will learn them very quickly, but for the very beginning, please print the file you need and put the print above the appropriate keys on your keyboard.

Using the convolution reverb

Both Kontakt Player and Sampler have a built-in convolution reverb. It is capable of recreating a reverb of real acoustical environment previously sampled and stored as an IR (Impulse Response). Even if you do not own the K2 Sampler, you can apply this high quality reverb to any patch using the Player included in this library. To load the Convolution Reverb at the output of the Player, first open the Multi "Convolution Reverb". This is an empty Multi-Instrument which uses the Convolution unit in its output configuration. **Important:** while loading the Convolution Multi, choose "**yes**" for the option "Replace Multi". Only this option ensures loading the right output configuration.

 From now on you can apply a great concert hall reverb to any Instruments or Multis loaded afterwards. (While loading a Multi to be used with the convolver, choose the merging option clicking on "**No**" in order **not** to replace the previous output configuration.) To control the amount of reverb, open the AUX Sends of the appropriate instrument clicking on the small button "AUX" at the right margin of the instrument GUI (or on "+", if no "AUX" button is seen) and move the slider "aux 1".

To remove the convolver or to control its parameters, you can access it in the first insert of the "aux 1" channel ("CU") in the player/sampler output section.

Deleting unused parts of the library

If you need your disk space and use just a part of the sound categories (e.g. just "normal", but not "ambient" or "dry"), you can simply delete unused audio files encoded in the nks – files ("monoliths"). Please note that only the nks files with "dry" or "ambient" in their names can be deleted, as "normal" contains important authorisation data.

Multiple Player Instances vs. CPU load

For complex, orchestral arrangements, it is strongly recommended to avoid opening many separate Player or Sampler instances. Instead, please load multiple patches in **one** Player or Sampler and assign them to different MIDI channels and outputs. Depending on the host application used, you can load at least 16 patches per player/sampler. For trouble-free working the right Kontakt DFD settings are essential: don´t use too small or too large buffer size settings and larger than necessary amonut of voices (accesible via the expert setting "Amount of memory (RAM) reserved for DFD streaming voices"). For further details please refer to the Kontakt Player/Sampler User Manual.

Stereo placement issues

All instrument groups have been recorded using the full width of the stereo sound image to give you the freedom of choosing any placement in the final sound image you may need. In the "ready to use" multis like Full Strings [L] and Play Me First, however, the groups are already placed like in a symphony orchestra (i.e. violins to the left, violas towards the center, etc.).

Applying the accent parameter

Mixing the staccato samples together with longer ones also provides good results in the following situations:
1. Mixing staccato 50/50 with categories like trills, half notes or tremolo allows both sounds to be played without switching: if you play very short, only the staccato samples will be heard; however, pressing a key for a longer time reveals the other sound.
2. For moderately fast legato-passages try different mixes of quarter- or half-notes with staccato.

Avoiding unwanted release samples

Rarely, if you hold a key and change to another articulation using a key switch, you may experience a problem with an unwanted release sample. It may happen if you hold the first key longer than the duration of the sample itself and release it **after** a new sound has been activated with a key switch. In this case the release sample of the new sound will be heard. To avoid this you can simply temporarily deactivate the release trigger either by pressing (or programming) the

sustain pedal shortly before releasing the key or by changing the parameter CC22 (Release) down to zero for a moment.

RAM and CPU load vs. freeze

String Essentials may cause high RAM and/or CPU load. To avoid problems - especially running the Player with a host application like Logic or Cubase - we recommend to "render" the tracks whenever possible using the "freeze" function.

Working with multiple loads of the same instrument

Since instruments like "Main Setup" contain many sounds/playing techniques, you may need the same instrument many times, assigned to different midi channels. In this case, perform the multiple load of the same instrument **within the same player or Kontakt 2 instance**. This will ensure that the system will load the samples **just once**. Otherwise, loading the same instrument to two different players (still within the same host application) will consume double the RAM capacity.

Why ambient, normal and dry?

The question may arise, why not reduce the library to one third of the size and use a modern convolution reverb to create any acoustic environment? The answer is simple: the different mic placements have been used **not** because of the different amounts of ambience - which can be reconstructed digitally, indeed - but because of the different sound character of the samples captured from different mic positions. Distant micing provides a smoother, "gentler" sound, whereas close micing sounds more direct, but somewhat "harsh". And even using the ambient or normal samples it is possible to make them sound closer or dryer by shortening the release trigger samples with the "release" parameter.

Tuning, pitch and transposition

The reference pitch is **A3 = 440 Hz,** thus the "middle C" is **C3.**
All the instruments / multis are mapped to the corresponding keys according to their original sounding pitch / notation. The exceptions:
- **Basses** belong to transposing instruments; they are mapped according to their **notation** – i.e. from **C1 to G3** (although they sound from C0 to G2.)
- **Full Strings** and **Play me first** are mapped one octave higher – i.e. the whole range of these multi instruments is moved one octave to the right to fit the 7-octave – keyboard (as the lowest octave C0-B0 is reserved for the key switches).

Updates

For future updates and demos please visit the download or product zone on www.bestservice.de