VIRTUAL INSTRUMENT

COMPREHENSIVE EASY-TO-USE
INSTANT ACCESS
VIRTUAL STRING ORCHESTRA

POWERED BY
KONTAKT
SOFTWARE TECHNOLOGY
FROM
NI

PETER SIEDLACZEK'S

STRING

ESSENTIALS

best·service

Recording Engineers:

Tadeusz Mieczkowski, Aneta Falana

Editing:

Aneta Falana, Julita Emanuilow, Marta Lizak

Concept & Kontakt Programming:

Peter Siedlaczek

Performed by

S.L.O.W. (Symphonic Lab. Orchestra, Warsaw)

Recorded at

S2 Studio, Polish Radio, Warsaw.

Special thanks to:

Torsten Kamps,

Prof. Andrzej Lupa,

Trevor Hurst,

Bob Lyng,

Tony Clark,

Manfred Honetschläger,

Tadeusz Mieczkowski,

Aneta Falana,

Jens Harth,

Klaus Kandler,

Martin Jann,

Franz Schwentner,

Graham Reilly

and Claudia Schumann.

Dear Friends,

I am happy to introduce you this comprehensive, thought-through and ergonomic virtual string orchestra. It couldn't have been realised earlier, without today's computer and sampler technology. In its carefully programmed patches you will find many innovative solutions, to help achieve your music goals even more quickly. The result is a spontaneous, playful and intuitive handling of the sound material. With unified key switch system and direct, instant access to the all important articulations. Including quintuple alternation switch (Staccato, Quarter Notes) and precise control of the dynamic response of the samples using different MIDI parameters.

String Essentials will enable you to focus on the most essential part of your activity - your music - creatively and easily. Just load and play it!

New great sounding samples in 5 different lengths, 3 or 4 dynamic levels, runs and natural release samples have been carefully recorded using 3 microphone placements: close (dry), normal and ambient. You choose the best sound for your music. Including Surround !

I did my best to use the power of the world's leading technology, the Native Instruments Kontakt Sampler down to the last detail.

The result is a complex, yet easy-to-use musical instrument. I am sure you will play it with enthusiasm and enjoyment!

Peter Siedlaczek
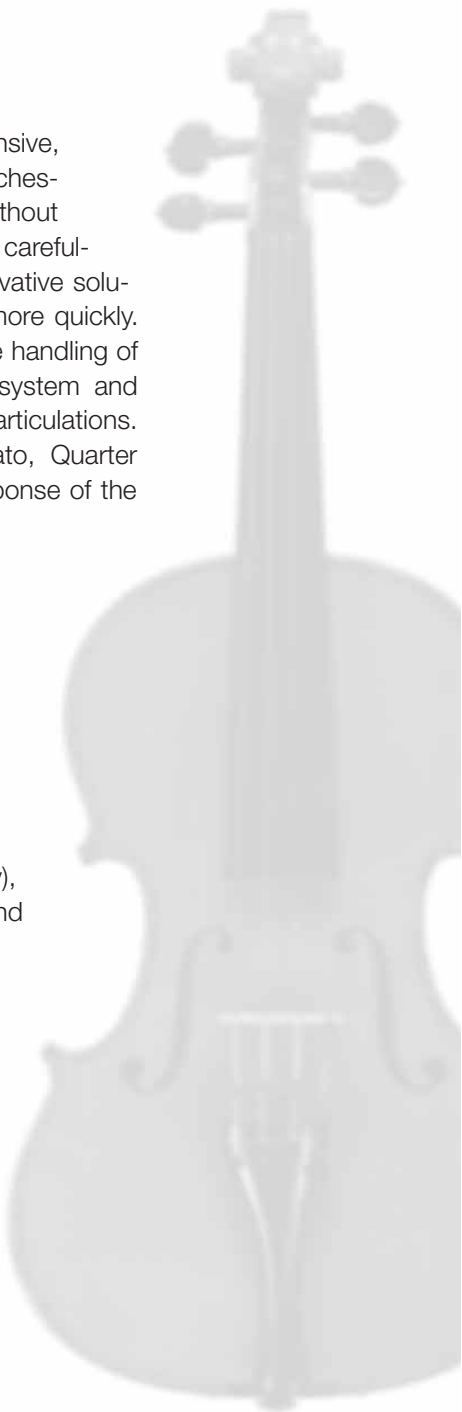
Quick Start

- ◆ Install and authorise String Essentials software *(see Kontakt Player Manual)*.

- ◆ Print the pdf file "1 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.

- ◆ Start the Player double–clicking on it.

- ◆ Click on the LOAD button and choose the instrument called „1 Play Me First" which can be found in the folder "Multis."

- ◆ If you experience any difficulties with too little memory, decrease the DFD buffer setting (Options > Preload Buffer Size). If your Mac/PC has 1 GB RAM or less, choose the "light" version.

- ◆ Press any key(switch) between C0 and B0 to choose a category and (important!) turn slightly the ModWheel and the Pitch Bend to send the appropriate MIDI parameters. To activate the key switches you can also click on the virtual keyboard of the Kontakt Player.

- ◆ Play and enjoy the sounds. Move the ModWheel and the active controllers on the Kontakt Player surface 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.

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 controlled layer switching. If playing "Variable Length" (KSwitch F0) the sample length can be altered with the knob "Tempo" (CC23). While playing the legato patch (KSwitch C#0) keep the sustain pedal depressed. 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 that the **DFD utility** (Direct From Disc) is installed and activated (see the Kontakt Sampler Manual for further details). String Essentials cannot function properly without DFD utility installed.

2. Since the Kontakt Sampler doesn't have any MIDI–controllers as the Player does, you have to use an **external MIDI device** sending MIDI controller data. This is **essential** for the proper function of the patches. The controller numbers (CC) are from 20 to 24.

3. Before loading the very first patch it is **absolutely essential** to set the following via the **OPTIONS menu:**

    - ◆ **DFD:** in the Expert window, under the option **"Auto–load patches in DFD mode whenever possible"** click on the Kontakt–button to **deactivate** it (the button **must** be grey).

    - ◆ **Engine:** Sustain Pedal Mode must be **"Pedal + MIDI switch."**

4. After loading a patch, it is **necessary to move** slightly all the **controller knobs/sliders** around their default positions, otherwise the instrument will assume wrong parameter values and will not function properly. The controllers are: Pitch Wheel, Mod Wheel and CC20 to CC24. To learn more about the parameters and their default values see below.

5. If the patch you have loaded uses key switches (most of them do), it is necessary to press one before you play.

6. You can also instal the player in parallel to your sampler and use it alternately.

Please note:

you do not need to follow the above if you use the original String Essentials software (the Player).

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 – 24). 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 velocity. **Default: 0.**

◆ **Pitch Bend** if applicable, controls parameters like glissando, portamento depth or run start shift. **Default: 0.**

◆ **CC20 (Expression)** if applicable, controls the "swell", i.e. the amount of a slight crescendo after note on. Additionally, in the patch Main Setup, setting this parameter to 127 recalls the program "automated crescendo". **Default: 0**

◆ **CC21 (Attack)** if applicable, emphasises the bow stroke (attack) at the very beginning of the sample. **Default: 0.**

◆ **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. Default: 127 (fully cw).

◆ **CC23 (Tempo** or **Length**) if applicable, controls the portamento or run tempo, or – in the patch "Variable Length" – the note length. **Default: 64** (50%, middle position).

◆ **CC24 (Accent)** applicable always when the patch "Staccato" is loaded. Controls the amount of accent by adding staccato to any other articulation. **Default: 0.**

The virtual knobs on the Kontakt **Player** GUI are already assigned to above parameters and can be operated by the mouse. For the Kontakt **Sampler** an external MIDI controller is obligatory. For more convenience it is also recommended for the Kontakt Player. It is also possible to use a virtual keyboard software (some of them are freeware) controlled by the computer keyboard.

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.

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.

Please note that the light versions of the patch "Play me first" can be found directly in the folder "Multis" together with the full versions.

Ambient and dry samples are not implemented in the light versions yet.
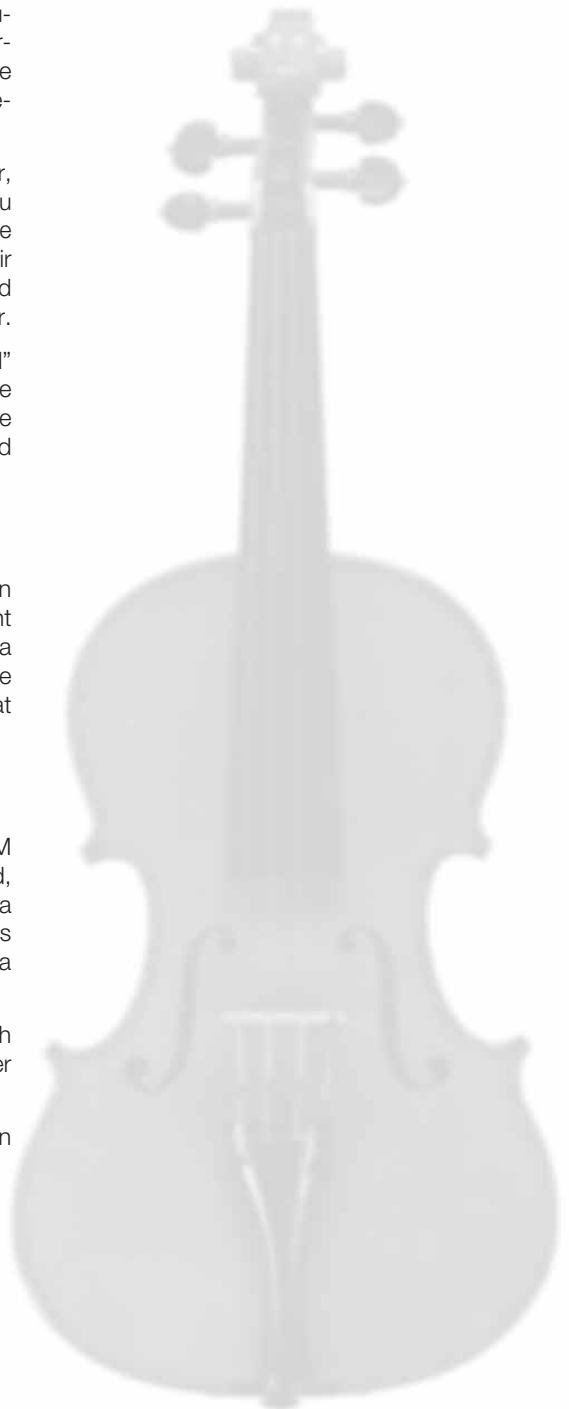
Detailed patch descriptions

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…

INSTRUMENTS

Instruments consist of a number of categories assigned to different key switches. The key switch range is C0 – B0 for Basses and Cellos, C1 – B1 for Violas and C1 – C#2 for 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.

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 (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#   Sustained legato
+ portamento (1 voice only)

Possible modes:

- ◆ Velocity–controlled multi–layer sustains with optimised transitions for legato, 3 layers

- ◆ Portamento (if Pitch Bend is moved out of Its middle position)

Assigned controllers:

- ◆ Pitch Bend; controls the portamento interval

- ◆ Expression (CC20)

- ◆ Tempo (CC23); controls the portamento speed

- ◆ Accent (CC24); works only if staccato loaded

This patch allows smooth transitions between the notes if played overlapped or <u>with sustain pedal depressed</u>. To get the portamento 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 speed.

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 (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 untill 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 untill the end of the sample).

A   Staccato

(must be loaded separately unless you use a multi)

Possible mode:

- ◆ velocity controlled staccato samples, quintuple alternation switching, 3 layers

Assigned controllers:

- ◆ Attack (CC21)
- ◆ Expression (CC20)
- ◆ Release time (CC22)
- ◆ 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 "Expression" is the opposite parameter of "Attack."

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.)

Violins only:

C2   Vn Runs [...], downwards

C#2 Vn Runs [...], upwards

(load separately unless you use the <u>multi</u> "Violins")

Possible modes:

◆ runs of any length, in any key, approx. 100 – 170 bpm

◆ ornamentations

Assigned controllers:

◆ Pitch bend (controls the start shift)

◆ Tempo (CC23)

◆ ModWheel (controls the volume)

The "Runs […]" (where […] is the name of a major and parallel minor key) 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 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).

There are 12 patches – one for each major/minor key – in the folder *Special Patches / Runs 140 for Main Setup*. All are assigned to the key switches C2 (downwards) and C#2 (upwards) to fit the key switches of the Main Setup. Please do not use "Runs 140" placed in the folder *Special Patches* unless you use a different MIDI channel and need more major/minor keys. (See also "Violins Runs 140" in Special Patches below.)

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 run in D–major, 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.

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 "1 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**. In the Multi "Violins" you will also find the Vn Runs 140 in C major (as an example). You can, of course, replace them with runs in any other key according to your needs. The Multi "Full Strings [L]" (light version only) 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 built–in reverb. Please note that the

reverb–version replaces the knob "Accent" with "Reverb" (CC24). Turning it to "0" deactivates the reverb and reduces the CPU load. For a closer description of the patches including key switches see "INSTRUMENTS" above. Please note, however, the following exception:

Key switch F: Variable length. If the Length–knob (CC23) is turned to "0", Whole Notes are activated (including release trigger). Turning the knob clockwise switches over to variable length mode (no release trigger, as the note should be sustained untill the sample ends.) For more information about "Variable length" see "Special Patches" below.

SPECIAL PATCHES

The folder "Special Patches" (Instruments > Special Patches) contains some interesting, additional patches which, however, may need some more RAM or CPU power.

1. VARIABLE LENGTH

Possible mode:

◆ velocity controlled notes with adjustable length from approx. 0,5 to 2 sec., 3 layers

Assigned controllers:

◆ Length (CC23)

◆ Expression (CC20)

◆ Attack (CC21)

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 simply 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 can hear samples which are approximately 1 sec. long. With the knob "Length" (or your external controller CC23) you can vary the length between 0.5 and 2 sec. (approximately). The controllers Expression and Attack are also assigned.

Please note:

1. Length settings of 0 or 100% can sometimes lead to unwanted side effects. To eliminate them, just increase or decrease the setting slightly.

2. This patch does not use release trigger, as the samples are intended to be played in their full length. You may use the sustain pedal to ensure that all the samples will be played untill the end.

2. GLISSANDO

Possible modes:

◆ Upward glissando

Downward glissando (if sustain pedal depressed)

Assigned controllers:

◆ Expression (CC20) (controls the detune feature)

◆ 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 **Expression** 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 – legato 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 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" 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:

- Tempo (CC23)

- ModWheel (controls the volume and direction)

- Pitch bend (controls the start shift)

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

The patch "Violins Runs 140" contains runs in all major/minor keys which can be recalled pressing 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. (while playing, be sure to use only the keys which belong to the major/minor key you have chosen, otherwise you will hear just a single, initial note).

To learn the details about the start–stop feature and ornamentations please refer to the key switch **A# / B** in the section **Main Setup** above.

"Runs 140" 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%) controls the volume of the runs upwards, in the lower half (0 – 50%) – of the runs downwards.

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

5. Vn Runs for Main Setup (folder)

see **Main Setup**, key switches **C2 / C#2**

Final Notes

Key switch assignment

The pdf files placed in the folder Print it (*KSwitch assignment*) show the key switch assignements 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.

MIDI Controller defaults

After loading a patch in the Kontakt Sampler, it is necessary to move slightly all the controller knobs/sliders (Pitch Wheel, Mod Wheel and CC20 to CC24) around their default positions, otherwise the instrument will assume wrong parameter values and will not function properly. To be on the safe side, however, it is also recomended to move the controllers accordingly when using the player software.

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.

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 (check it out especially if you play live).

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.

Parameters displayed in the multi-instruments

If you load a multi, the parameters displayed on the Player GUI correspond to the instrument chosen in the slot bar (highlighted in blue). However, the controllers still control **all** the instruments within the multi, since they are using the same midi channel. To use and keep different controller settings per instrument, choose different MIDI channels (if possible) and make sure that your key switches (not the controllers!) send MIDI data to all used channels.

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**. 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 sounds 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

All the patches in this library are just the first proposal. We expect many suggestions and requests which will help us to modify the existing patches or create further programs according to your needs. Please visit the download zone on

www.bestservice.de

PLAY ME FIRST   (Full Strings)

Key-Sw	Additional condition	ModWheel	Pitch Bend	Expr. (CC20)	Attack (C21)	Release (C22)	Tempo ** (C23)	Accent (C24)	Sound	Assigned controllers
C0	ModWh = 0 CC20(Expr) < 127	◆		◆		◆		◆	**long** looped samples, Velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**Velocity** on dynamics, **CC 20** on Expression (swell) **CC22** on release length
C0	ModWh > 0 CC20(Expr) < 127	◆			◆	◆		◆	**long** looped samples, ModWh. Controlled dynamics (x-fade), 3+1 layers (*pp, mf, ff*+short *fff*)	**ModWheel** on dynamics slight velocity control **CC 21** on Attack **CC22** on release length *fff* on release <u>if MW=127</u>
C0	CC20(Expr) = 127	◆		◆		◆		◆	**Auto-crescendo,** 3+1 layers, (*pp, mf, ff* +short *fff*)	**ModWheel** on cresc. **Time** *fff* on release <u>if MW=127</u> **CC22** on release length
C#0	PBend = 0		◆	◆		◆		◆	**long** looped samples, velocity controlled dynamics, 3 layers (*pp, mf, ff*) 1 voice only (legato)	**Velocity** on dynamics, **CC 20** on Expression (swell) **CC22** on release length **SusPedal** on forced legato
C#0	PBend ≠ 0		◆	◆		◆	◆	◆	See above + PitchBend-controlled **Portamento,** 3 layers (*pp, mf, ff*)	See above + **PBend** on Porta Start Pitch **CC23** (Tempo) on Porta Time
D0	ModWh > 0	◆			◆	◆		◆	**ModWheel** controlled long looped **Tremolo,** 3 layers (*pp, mf, ff*)	**ModWheel** on cresc./dim **CC21** on Attack **CC22** on release length
D0	ModWh = 0	◆		◆	◆	◆		◆	Velocity controlled long looped **Tremolo,** 3 layers (*pp, mf, ff*)	**Velocity** on dynamics **CC20** on Expression (swell) **CC21** on Attack **CC22** on release length
D#0	see D0								Half-step **Trill**	see Tremolo (key switch **D**)
E0	see D0								Whole-step **Trill**	see Tremolo (key switch **D**)
F0	CC23(Lngth = 0)			◆	◆	◆	◆	◆	**Whole notes,** velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC20** on Expression (swell) **CC21** on Attack **CC22** on release length (whole notes only) **CC23** on note length
F0	CC23 (Lngth) > 0			◆	◆	◆	◆	◆	**Variable Length**	
F#0									**Pizzicato**, double sw.	**CC22** on release length
G0				◆		◆		◆	**Half notes,** double sw., velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC20** on Expression (swell) **CC22** on release length
G#0					◆	◆		◆	**Quarter notes,** velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC21** on Attack **CC22** on release length
A0				◆	◆	◆			**Staccato,** quintuple sw. velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC20** (Exp) on "smooth attack" **CC21** on Attack **CC22** on decay & release length
A#0		◆	◆				◆	◆	**Fast Runs** down (Violins only)	**PBend** on run start shift (Ornamentations) **ModWheel** on Volume Run stop on second key **CC23** on Tempo
B0		◆	◆				◆	◆	**Fast Runs** up (Violins only)	

TABLES

MAIN SETUP, MULTIS (Violins, Violas, Cellos, Basses, Full Strings)

Key-Sw	Additional condition	ModWheel	Pitch Bend	Expr. (CC20)	Attack (C21)	Release (C22)	Tempo (C23)	Accent (C24)	Sound	Assigned controllers
C	ModWh = 0 CC20(Expr) < 127	◆		◆		◆		◆*	**long** looped samples, Velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**Velocity** on dynamics, **CC 20** on Expression (swell) **CC22** on release length
C	ModWh > 0 CC20(Expr) < 127	◆			◆	◆		◆*	**long** looped samples, ModWh. Controlled dynamics (x-fade), 3+1 layers (*pp, mf, ff*+short *fff*)	**ModWheel** on dynamics (+slight velocity control) **CC 21** on Attack **CC22** on release length *fff* on release <u>if MW=127</u>
C	CC20(Expr) = 127	◆		◆		◆		◆*	**Auto-crescendo,** 3+1 layers, (*pp, mf, ff* +short *fff*)	**ModWheel** on cresc. **Time** *fff* on release <u>if MW=127</u> **CC22** on release length
C#	PBend = 0		◆	◆			◆	◆*	**long** looped samples, velocity controlled dynamics, 3 layers (*pp, mf, ff*) 1 voice only (legato)	**Velocity** on dynamics, **CC 20** on Expression (swell) **CC22** on release length **SusPedal** on forced legato
C#	PBend ≠ 0		◆	◆			◆	◆*	**See above** + PitchBend-controlled **Portamento,** 3 layers (*pp, mf, ff*)	**See above** + **PBend** on Porta Start Pitch **CC23** (Tempo) on Porta Time
D	ModWh > 0	◆				◆		◆*	ModWheel controlled long looped **Tremolo,** 3 layers (*pp, mf, ff*)	**ModWheel** on cresc./dim **CC21** on Attack **CC22** on release length
D	ModWh = 0	◆		◆	◆	◆		◆*	Velocity controlled long looped **Tremolo,** 3 layers (*pp, mf, ff*)	**Velocity** on dynamics **CC20** on Expression (swell) **CC21** on Attack **CC22** on release length
D#	see D								Half-step **Trill**	see Tremolo (key switch **D**)
E	see D								Whole-step **Trill**	see Tremolo (key switch **D**)
F				◆	◆	◆		◆*	**Whole notes,** velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC20** on Expression (swell) **CC21** on Attack **CC22** on release length
F#									**Pizzicato**, double sw.	**CC22** on release length
G				◆		◆		◆*	**Half notes,** double sw., velocity controlled dynamics, **3 layers** (*pp, mf, ff*)	**CC20** on Expression (swell) **CC22** on release length
G#					◆	◆		◆*	**Quarter notes,** velocity controlled dynamics, **3 layers** (*pp, mf, ff*)	**CC21** on Attack **CC22** on release length
A	MW < 127			◆	◆	◆			**Staccato** (if loaded), quintuple switch, velocity controlled dynamics, 3 layers (*pp, mf, ff*)	**CC20** (Exp) on "smooth attack" **CC21** on Attack **CC22** on decay & release length
A	MW = 127			◆	◆	◆			**Vn: Staccato + Falls**	as above (Violins only)
A#		◆	◆				◆	◆*	**Fast Runs** down (Violins only)	**PBend** on run start shift (Ornamentations) **ModWheel** on Volume Run stop on second key **CC23** on Tempo
B		◆	◆				◆	◆*	**Fast Runs** up (Violins only)	

C2 + C#2: violins only, reserved for "Vn Runs *[key]*"   Controller assignment: see A# / B

*) with Staccato loaded

VIOLINS RUNS 140

Key-Sw	Additional condition	active parameters							Sound	Assigned controllers
		ModWheel	Pitch Bend	Expr. (CC20)	Attack (CC21)	Release (CC22)	Tempo (CC23)	Accent (CC24)		
C-B (corresponds to the major key)	ModWh 64 - 127	◆	◆				◆		**Runs up** 140 bpm	**Velocity** on Volume **ModWh.** on Volume **PBend** on Run Shift **CC23** on Tempo Run stop on second key
	ModWh 0 - 63	◆	◆				◆		**Runs down** 140 bpm	**Velocity** on Volume **ModWh.** on Volume **PBend** on Run Shift **CC23** on Tempo Run stop on second key

GLISSANDO

Key-Sw	Additional condition	active parameters							Sound	Assigned controllers
		ModWheel	Pitch Bend	Detune (CC20)	Attack (CC21)	Release (CC22)	Tempo (CC23)	Accent (CC24)		
none	PitchBend 64 - 127		◆	◆					Gissando up	**Velocity** on Volume **ModWh.** On Volume **PitchBend** on Glissando **CC20** on detune feature
	PitchBend 63 - 0 + SusPedal depressed !		◆	◆					Glissando down	**Velocity** on Volume, **ModWh.** On Volume **PitchBend** on Glissando **CC20** on detune feature

REPETITIONS

Key-Sw	Additional condition	active parameters							Sound	Assigned controllers
		ModWheel	Pitch Bend	Expr. (CC20)	Attack (CC21)	Release (CC22)	Tempo (CC23)	Accent (CC24)		
G	Mono mode (legato) if SusPed. depressed			◆	◆	◆	◆	◆ *	**Half notes** with triple alternation switch, poly or mono (legato)	**Velocity** on Vol. (3 layers) **CC20** (Expr) on Slope **CC21:** Attack **CC23** (Tempo) on decay shape **SusPedal** on legato mode
G#	Mono mode (legato) if SusPed. depressed			◆	◆	◆	◆	◆ *	**Quarter notes** with quintuple alternation switch, poly or mono (legato)	**Velocity** on Vol. (3 layers) **CC20** (Expr) on Slope **CC21:** Attack **CC23** (Tempo) on decay shape **SusPedal** on legato mode

*) with Staccato loaded

VARIABLE LENGTH

Key-Sw	Additional condition	active parameters							Sound	Assigned controllers
		ModWheel	Pitch Bend	Expr. (CC20)	Attack (CC21)	Release (CC22)	Length (CC23)	Accent (CC24)		
none				◆	◆		◆		Samples with **adjustable length** (0.5 to 2 sec. approximately)	**Velocity** on Volume (3 layers) **CC23** (Tempo) on length