VIENNA DIMENSION STRINGS

An interview with Herb Tucmandl
Founder and CEO of the Vienna Symphonic Library

What was the main reason for creating another string sample library?

The main goal was to provide a string library that, for the first time, allowed for individual access to each single player within an ensemble. Especially with ensembles of four or more musicians, many little mistakes occur during a real recording, such as sloppy and even wrong notes, hesitant or delayed starts, and so on. Not with all musicians, but very likely with one or two players. As a useful "side-effect" this approach is perfectly suited for divisi writing as well. The more sophisticated and technically demanding a piece is, the more likely these mistakes occur. Composer Richard Strauss well described this phenomenon in his "al-fresco" technique of orchestration, where he imposed very high technical demands on the instrumentalists, being fully aware that the final result won't be accurate, and that was his intention.

Are these "mistakes" not possible to capture when sampling a group as one?

Basically they are, but they would sound unnatural, since it's not an easy task to ask musicians to play with mistakes. They either happen or they don't. Also, it's extremely annoying to hear the same mistakes over and over again. You'd need to record so many variations that the efforts would exceed any practical limits. With *Vienna Dimension Strings* it is possible, for example, to designate one or two "weak" players in the group and then play the piece freely, without having to worry about sounding authentic. With the automatic Humanize feature, all kinds of nuances and variations are possible while simply playing, which makes the final result sound very lively.

So does this mean that imperfection was the main concept behind Vienna Dimension Strings?

If you'd like to exaggerate, yes. But primarily it was all about singling out the musicians. For example, we addressed the changes in dynamic levels that can be achieved with velocity crossfades or expression. In reality, musicians never react in perfect unison; one makes a change a little slower, another faster, but maybe with a bigger change in dynamics, and so on. The same with vibrato. All this wouldn't be possible if the group had been recorded as one. But it is very easy if you have access to each individual player; the timbral difference in the final result is absolutely striking.

These options are only available when each instrument is loaded into an individual instance of the player. Are you providing Presets and Matrices of desks and groups to combine them in a single instance?

As always, it's a question of how much time you'd like to put into shaping a piece, as well as of the available computer resources. When you're using the "All Violins Presets", for instance, individual crossfades are not possible, but you will finish your work faster. But of course we've made sure that the software-based automatic *Humanizing* – providing different timing and intonation of the individual players – is fully available at all times. An ideal setup for my personal work is to load each instrument separately into their own instance of the *Vienna Instruments PRO* player. In the sequencer, I can play and record all violins together and edit controller data individually afterwards, if required. With passages that I want to record individually, I just activate the respective players for the recording.

Is Auto Divisi in a Vienna Instruments PRO instance possible if a faster workflow is required?

In principle, yes, but we didn't prepare any presets for this. In orchestral arrangements, the violins often differ substantially from the winds when playing divisi. With winds, simple chordal progressions might be sufficient. Strings are often more complex in their individual voice-leading and the limits of automation such as Auto Divisi would be quickly exceeded. The best results are achieved when every voice is treated and recorded separately. This way, crossings of voices or wrong legato connections can be avoided, e.g., when the line of the principal desk is accidentally continued by the third desk. With no Auto Divisi Patches there is a certain pedagogical aspect as well – composers less experienced with string arrangements will not fall into the trap of writing string arrangements that sound like they're coming from a "keyboardist's point of view".

Why did you record the players together and not individually, one at a time? To achieve isolated signals with individual miking in an ensemble setting must have been difficult.

True, the challenge of miking is higher, but the essential point is that it is simply impossible to achieve a homogenous ensemble sound when mixing a couple of soloists after the fact. When playing as a group, musicians continually adapt, matching timbre, intensity, vibrato, intonation, bow speed and more. All these interactions happen automatically in a good ensemble with a good conductor. This is what you call the "magic" of a live performance. If you recorded eight soloists independently, that interplay is missing and the result will not be a realistic ensemble sound.

Do you plan to release a package with second violins?

Especially with *Vienna Dimension Strings*, recording a second violin ensemble would definitely be a wasted effort. Creating different timbres with one ensemble is so easy to achieve, and there are even more than just two possible variations. The determining factor is the balance within the group. Depending on which instruments are emphasized, the overall sound and also the playing characteristics will change. When used in combination with *Vienna MIR PRO* or *MIR PRO 24,* this effect can be quickly achieved by changing the players' positions. Usually, all players are placed in depth and the first desk is situated much closer to the main microphone than the last desk in the back. Moving the first desk to the back and all other players one position forward will do the job and you get another timbre, for example.

The size of the library, with more than 300,000 violin samples alone, and an estimated one million for the full Dimension Strings library, is enormous. Does this amount result solely from the number of individually recorded players?

The amount of players multiplies the number of samples, of course. But another reason for the huge data size is that we've recorded each individual string of each player in its full range, approximately one octave plus a fifth. This increases the data size by yet another multiple.

Can you explain how addressing the individual strings works?

All of our Presets/Matrices/Patches follow the same principles. There's the division into different players, and – in another dimension – the division into individual strings. Of course we provide an optimized setup that offers playing on all strings equally, changing to the next string in fifth intervals

and avoiding open strings. Another setup forces playing with open strings, and another one forces playing on preferred strings, on the violin that would be SUL G, SUL D, SUL A, SUL E. We didn't label the setups, e.g., SUL G, but FORCE G, because if the range of a string is exceeded, the notes will be played on the next higher string automatically without having to switch to another Patch manually. These Presets include Matrices with several variants so the user may change from SUL G to SUL D by using a key switch.

Did you sample all strings in the full play range because of the different characters and timbres of the individual strings?

Exactly. Apart from being able to define the character of the sound it can be irritating when the lowest or highest note of a melody is played on another string. This is usually accounted for by real musicians, even when there's no "SUL" indication in the score. Also, the sound of playing large intervals in legato on one string is very different. In legato, all notes should be seamlessly connected, but with larger intervals, position shifts in the left hand are unavoidable, resulting in a slight unintended portamento, which is different from a strong portamento. This specific technique often lends expressive passages the right emotional context. By optionally selecting and mixing the strings of the individual players, e.g., player 1 to 4 are playing SUL G while the other four players change to the D string, you may adjust the character and timbre in many wonderful ways.

Are there any other special features of Vienna Dimension Strings, apart from recording the individual players within a group and sampling the full play range of each string?

Yes, we attached great importance to the expressive possibilities of vibrato playing. In general, there are three variations: Without vibrato, with vibrato, and expressive vibrato for all sustain, legato, and portamento articulations. Especially the smooth transitions from vibrato to non-vibrato (and vice versa) are an outstanding feature of *Vienna Dimension Strings.* All Interval Performance articulations, i.e., all Patches with interval samples, are available in four velocity layers, and switching seamlessly between them with velocity crossfades works great. In addition to our Trill Performances there are Marcato Trills – strongly accentuated multiple interval steps ranging up to an octave.

Another innovation are the so-called finger sounds that are available as Interval Performances as well. We have recorded the noises that occur when shifting positions on the finger board without playing a tone using the bow, i.e., the sounds of dropping fingers on the string, and with larger intervals, the corresponding sliding noises. When this Patch is combined with single note samples, e.g., staccatos or pizzicatos, it will breathe even more life into your performance, especially when played in pianissimo.

With the release of Vienna Dimension Strings, do the other Vienna Symphonic Library string products become redundant?

Our motto, in the 12 years of Vienna Symphonic Library's history, has always been to develop products that expand the existing product range rather than making former products obsolete. This applies to *Vienna Dimension Strings* as well. Of course they may be used by themselves, but the timbre of a huge string section, such as our *Appassionata Strings* with 20 violins, cannot be replaced by 8 violins. On the other hand, adding some or all of the new *Vienna Dimension Strings* violins to the *Chamber Strings*, *Orchestral Strings* or *Appassionata Strings* expands their spectrum, and their possibilities, in a tremendous way. If you look at it that way, *Vienna Dimension Strings* will provide a huge increase in value for the existing string ensembles.

You're releasing the Dimension Strings in different sections. So the violin section of Vienna Dimension Strings is the first part of the product you're releasing?

That's correct. *Vienna Dimension Strings* is by far the most ambitious and intensive production in the history of the Vienna Symphonic Library. Starting as early as the fall of 2008, even before the recordings of *Vienna Dimension Brass* were started, we realized that the strings would need a much longer production time than the brass instruments. In the meantime, the release of *Vienna Dimension Brass* dates back more than one and a half years, and many users have asked us about the lack of new Dimension products. Our answer has always been, "We are working even harder than ever before", but no new libraries have been published since then. So finally we have just completed the violins, and their possibilities are simply breathtaking, so we really wanted to

share this new library with our users. What's more, with our attractive Early Bird Offer customers may purchase a full *Vienna Dimension Strings* license now and benefit from a major discount.

Does that mean that it's going to be a long time until the next groups of instruments will be released?

Currently we're not able to make a reliable forecast since we don't yet know how much faster we'll be able to work on the other string sections. All of the samples have been recorded, and our recording team has already been working on other projects for quite a while now. However, the editing process is considerably more time-consuming than the recordings themselves. While editing the violin samples we were able to optimize many operations and procedures, and our team of software developers has created more than a dozen applications that reduce the editing time dramatically, and by the same token increase the quality of the samples.

Our pledge today is: As soon as the next string section is ready for release – most likely the cellos – we'll immediately make it accessible to our customers.