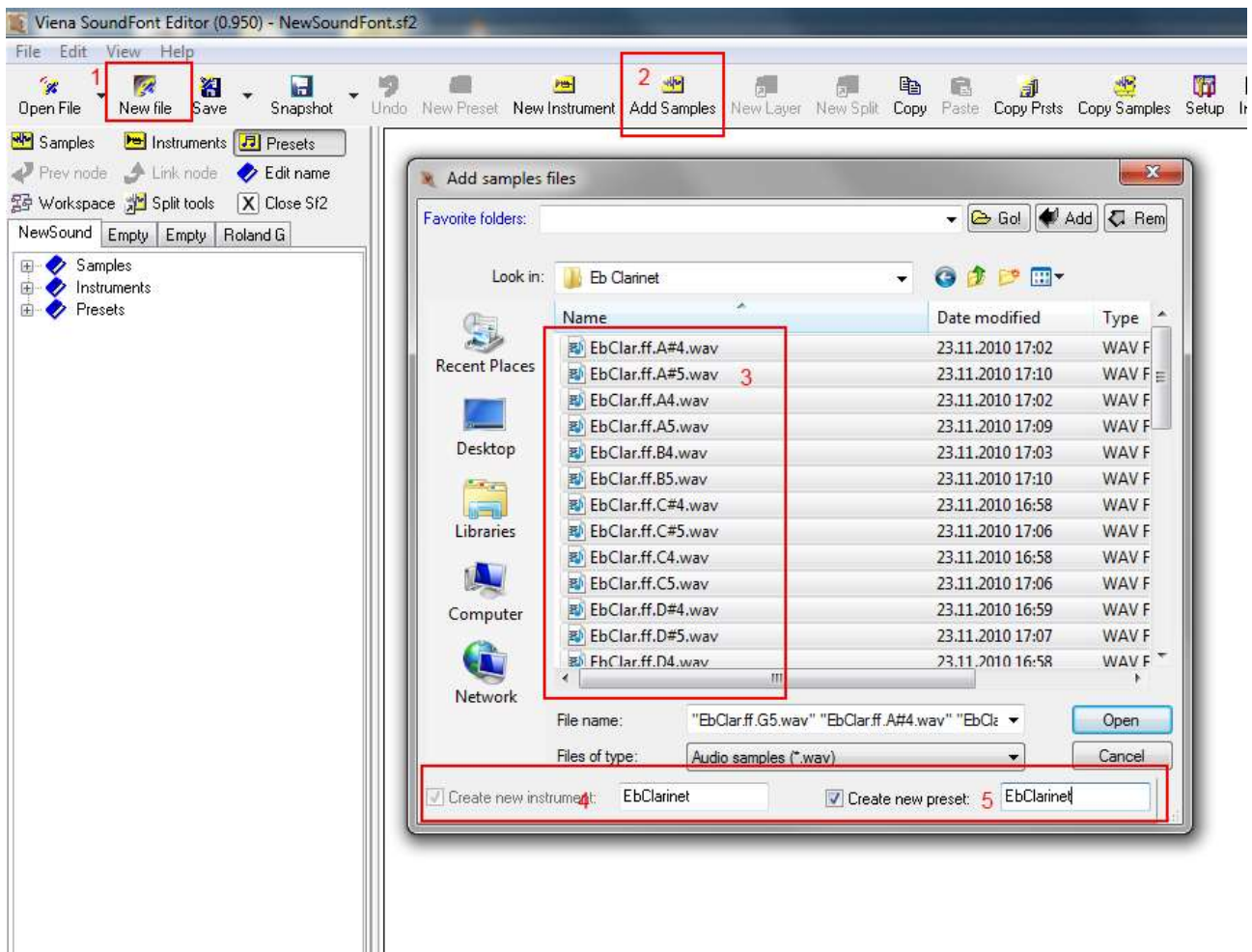


# Tutorial: How to create a SoundFont from samples – part 1

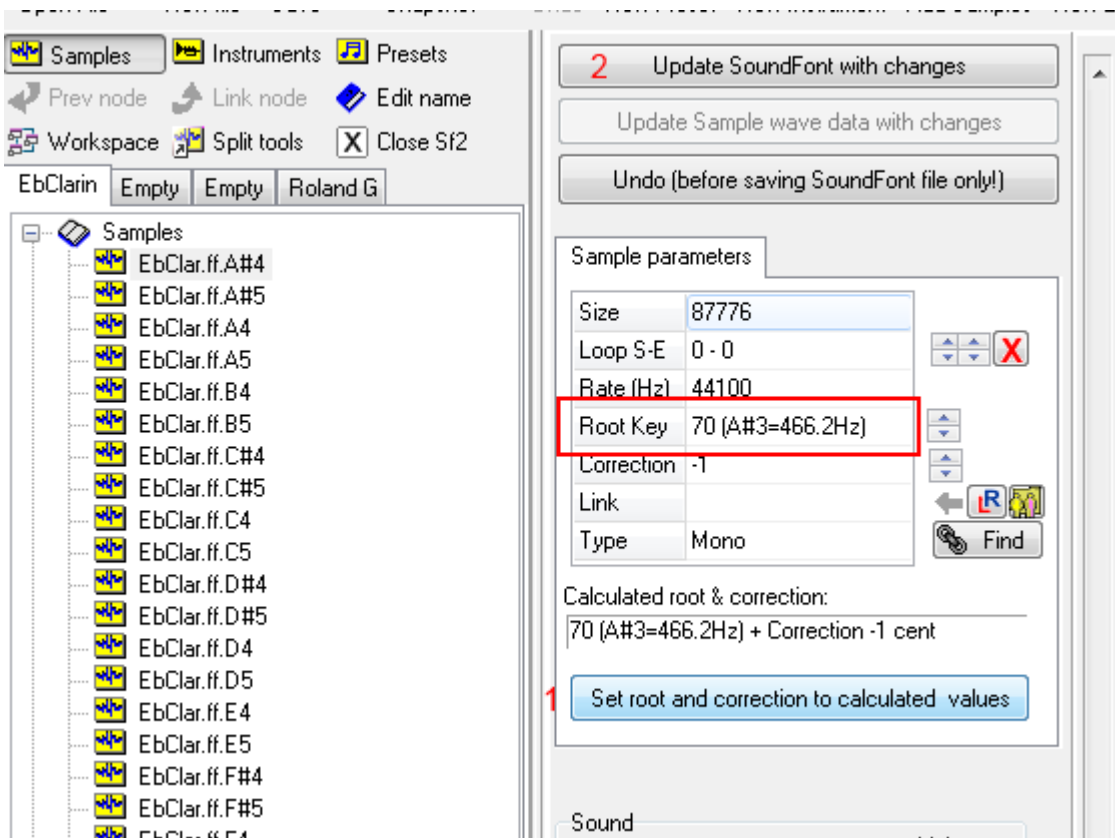
This tutorial shows how to quickly create a SoundFont if you have a set of samples which are a) distributed evenly over the key range you want to cover and b) long enough so that you don't need to loop them.

1. Press the "New file" button in the toolbar to create a new SoundFont. You can give it a name now, but you can also leave it until later, when you actually save the file.
2. Press the Add Samples button in the toolbar to show a file dialogue.
3. Select all files you want to add now.
4. Don't press "Open" yet! At first check the "Create new instrument" box and give the instrument a name. (This box will be enabled now.)
5. Check the "Create new preset" box to also create a preset for this new instrument. Give it a name. NOTE: This is the name visible to the outside world.
6. Finally press the "Open" button.

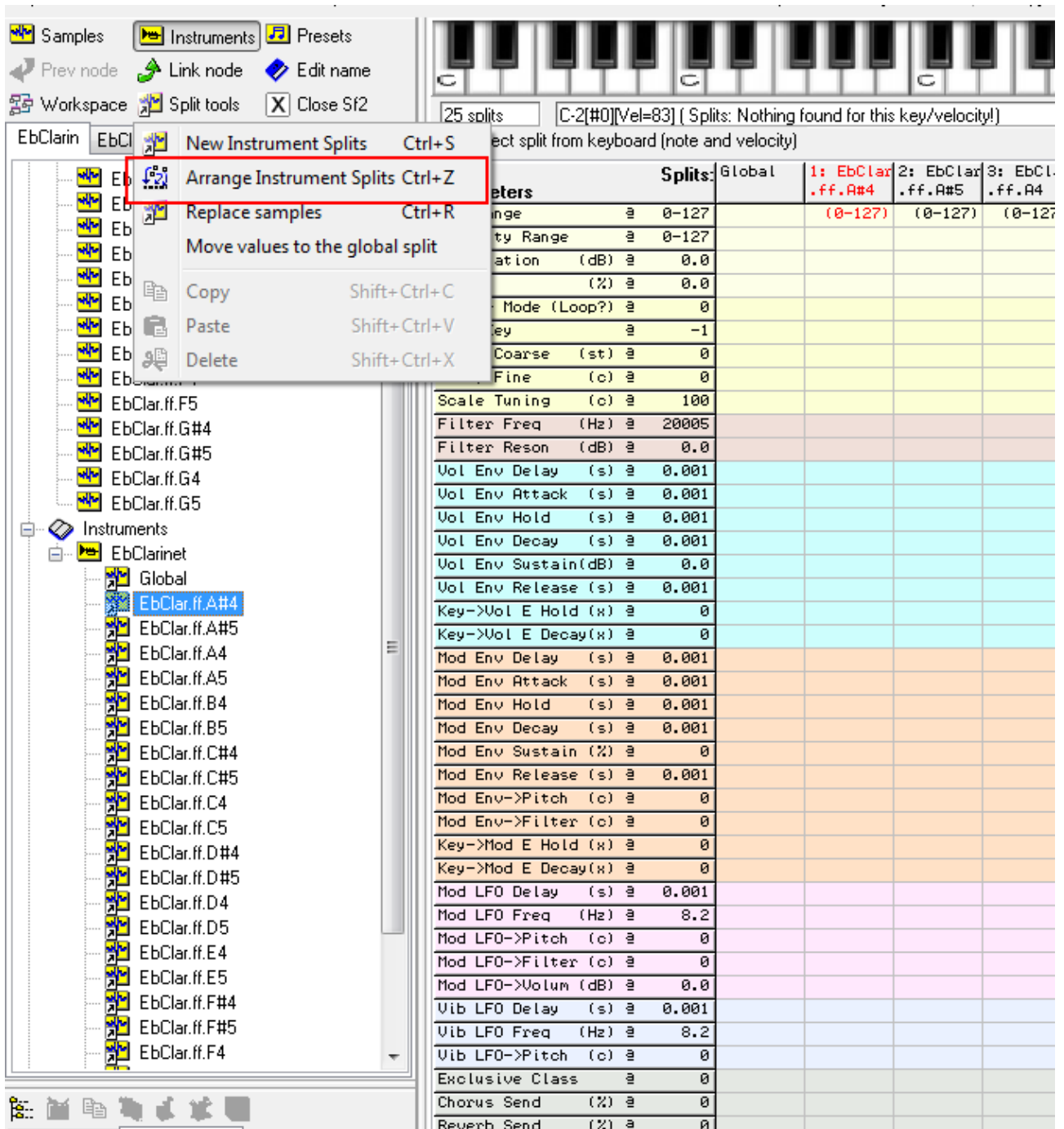


You now have SoundFont with samples, one instrument with splits (one split – or key zone - for each sample) and one preset for the single instrument. For simplicity sake we will here assume that all samples represent the same velocity range, or the full range: 0.127.

Next, you need to check the root key of the samples. If you are lucky, they will all be alright now. If not, you need to fix them:



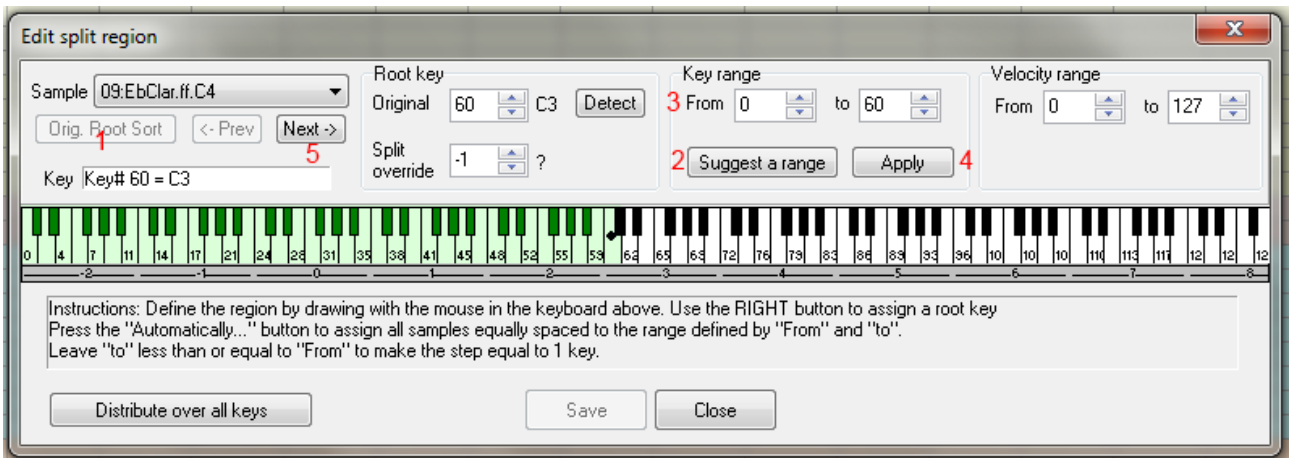
Viena has picked the root from the name of the sample, but unluckily the name is not correct. For example, the first sample includes the root key name "A#4" but Viena has determined that the correct root key should be one octave lower, or A#3. See the box "Calculated root & correction". The root key found by Viena is not always correct, though, and you should verify it at first by listening to the sample (press "Play") and comparing to another SoundFont (you can have another SoundFont open at the same time in another tab and switch back and forth) or to a real life instrument. If you trust the value found by Viena, then press the key [1]. And immediately after the key [2] to actually update the internal SoundFont structure with the new value. Only then go on to the next sample.



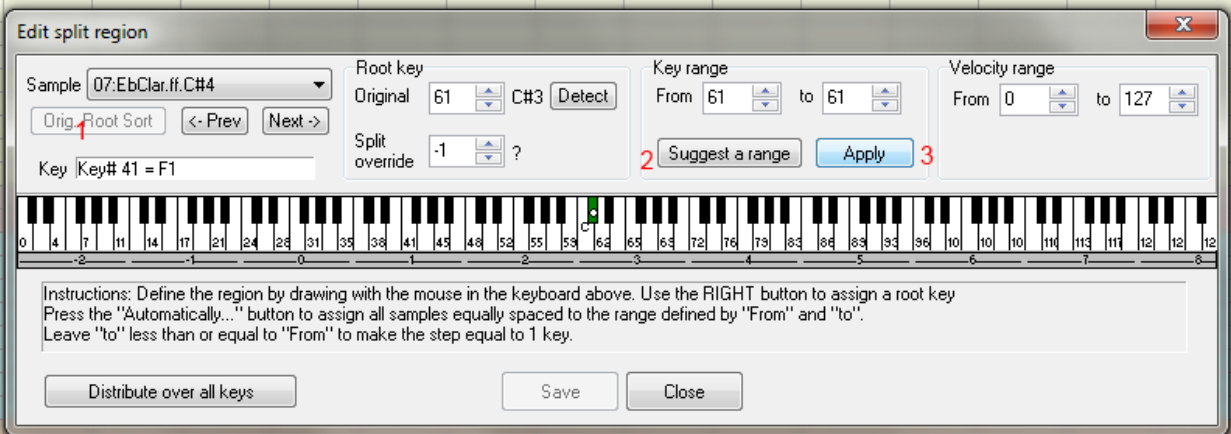
The instrument you have created has as many splits as there are samples. These splits must now be distributed over the keys. To do this, press the “Split tools” button and choose the item “Arrange Instrument Splits”. A new window will pop up.

1. Press the “Orig. Root Sort” button now to arrange the samples/splits in the order of the root key, just to make it easier. In the example here, the first sample is then “09: EbClar.ff.C4” for the root key C3.
2. Press now the button “Suggest a range” to display a suitable range above in “From” and “to”
3. If you like to change the range, then do it now. As this is the first sample, Vienna will suggest the full range from 0 through 60, but not include key 61 as there is a sample available for this key.

4. Finally, press the Apply button. The selected range now shows up in green in the keyboard below and also in splits table data.
5. Press the “Next ->” button to move to the next sample, which will be sample “07: EbClar.ff.C#4”



Sample	Key Range	Root Key	Velocity Range
03: EbClar.ff.A4	(0-127)		(0-127)
04: EbClar.ff.A5	(0-127)		(0-127)
05: EbClar.ff.B4	(0-127)		(0-127)
06: EbClar.ff.B5	(0-127)		(0-127)
07: EbClar.ff.C#4	61-61	C#3	(0-127)
08: EbClar.ff.C#5	(0-127)		(0-127)
09: EbClar.ff.C4	0-60		(0-127)
10: EbClar.ff.C5	(0-127)		(0-127)
11: EbClar.ff.D#4	(0-127)		(0-127)
12: EbClar.ff.D#5	(0-127)		(0-127)
13: EbClar.ff.D4	(0-127)		(0-127)
14: EbClar.ff.D5	(0-127)		(0-127)
15: EbClar.ff.E4	(0-127)		(0-127)
16: EbClar.ff.E5	(0-127)		(0-127)



Again, press the button [2] and the button [3]. You can see that the chosen key ranges are also now shown in the splits table for the generator “Key range”-

Repeat the above steps for all samples and finally press the “Close” button.

The SoundFont is almost ready. There is one more generator value that needs to be modified and that is the “Vol Env Release” value, or the time it will take for the sample volume envelope to reach zero after you have released the key. Any value less than – say – 0.5 seconds could be used here. It is a matter of taste and it depends on the nature of the instrument. For a clarinet it should be relatively short, so I have chosen the value 0.2.

Finally save the SoundFont!

Select split from keyboard (pitch and velocity)

Parameters	Splits:	Global	1: EbC .ff.A#
Key Range @	0-127		70
Velocity Range @	0-127		
Attenuation (dB) @	0.0		
Pan (%) @	0.0		
Sample Mode (Loop?) @	0		
Root Key @	-1		
Tune, Coarse (st) @	0		
Tune, Fine (c) @	0		
Scale Tuning (c) @	100		
Filter Freq (Hz) @	20005		
Filter Reson (dB) @	0.0		
Vol Env Delay (s) @	0.001		
Vol Env Attack (s) @	0.001		
Vol Env Hold (s) @	0.001		
Vol Env Decay (s) @	0.001		
Vol Env Sustain(dB) @	0.0		
Vol Env Release (s) @	0.001	0.200	
Key->Vol E Hold (x) @	0		
Key->Vol E Decay(x) @	0		