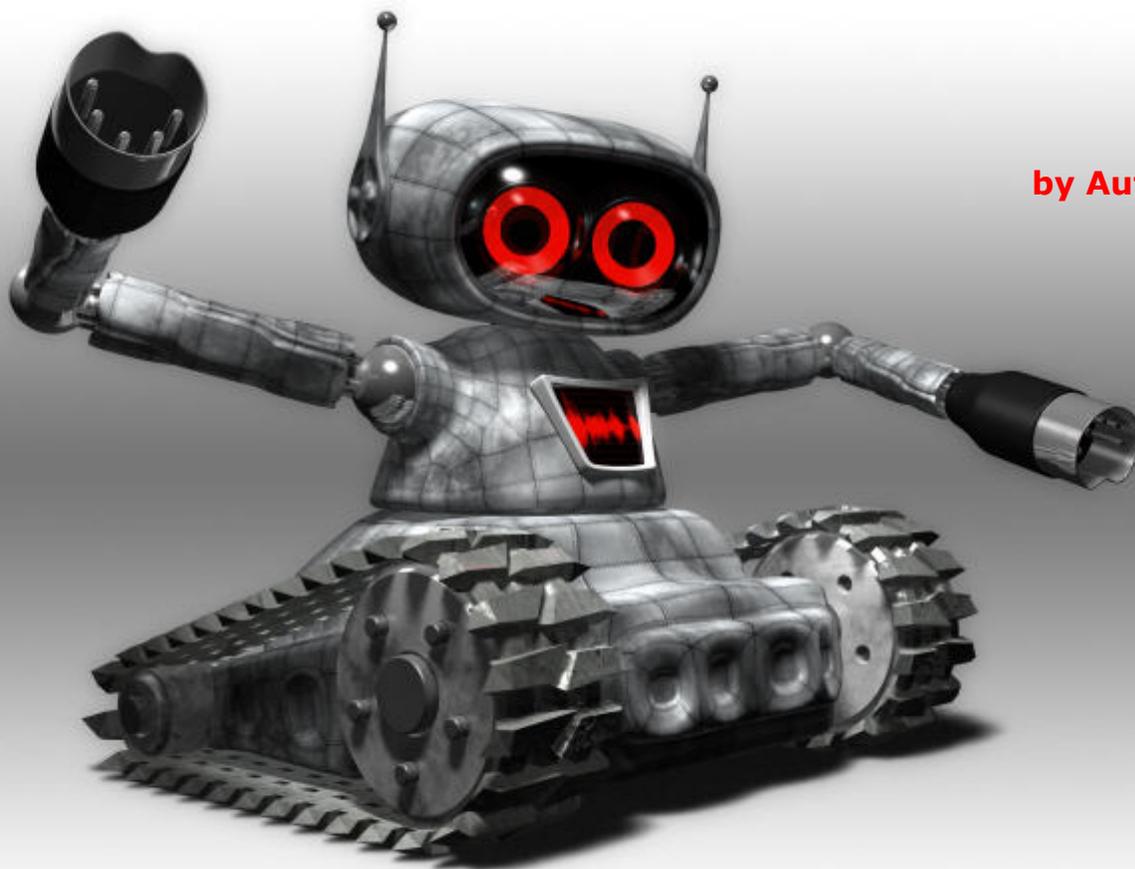# Skylife
Samplerobot

How to make a Wusikstation soundset

by Autodafe

As some of you may have noticed, there's a nice little app that's been around for quite some time now, called Samplerobot. It claims to be able to do "automatic sampling of real instruments", and to recreate your favorite hardware synth in (software) sampled form.

I recently had the opportunity to test it and I have really been impressed by Samplerobot's capabilities and quick results. This little app is able to do almost everything on its own, from sampling an instrument, playing all the required notes and velocities, recording them and autolooping/crossfading them if necessary.

Follow me in a basic step-to-step tutorial. We will sample a very old analog synthesizer (the yamaha CS-10 that was featured in my last month's article) and make it available as a Wusik preset in few simple stages.

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First, we have to set-up Samplerobot to work correctly.

You need to set-up MIDI In and MIDI Out correctly. MIDI In should be set to your Master Keyboard Interface and Channel (or, you can play notes with your mouse on the on-screen keyboard). MIDI Out must be set to your synth MIDI Interface and Channel in order to play it. The program has a nice MIDI In Monitor which allows you to see what's going on when you hit one key on your Master Keyboard.
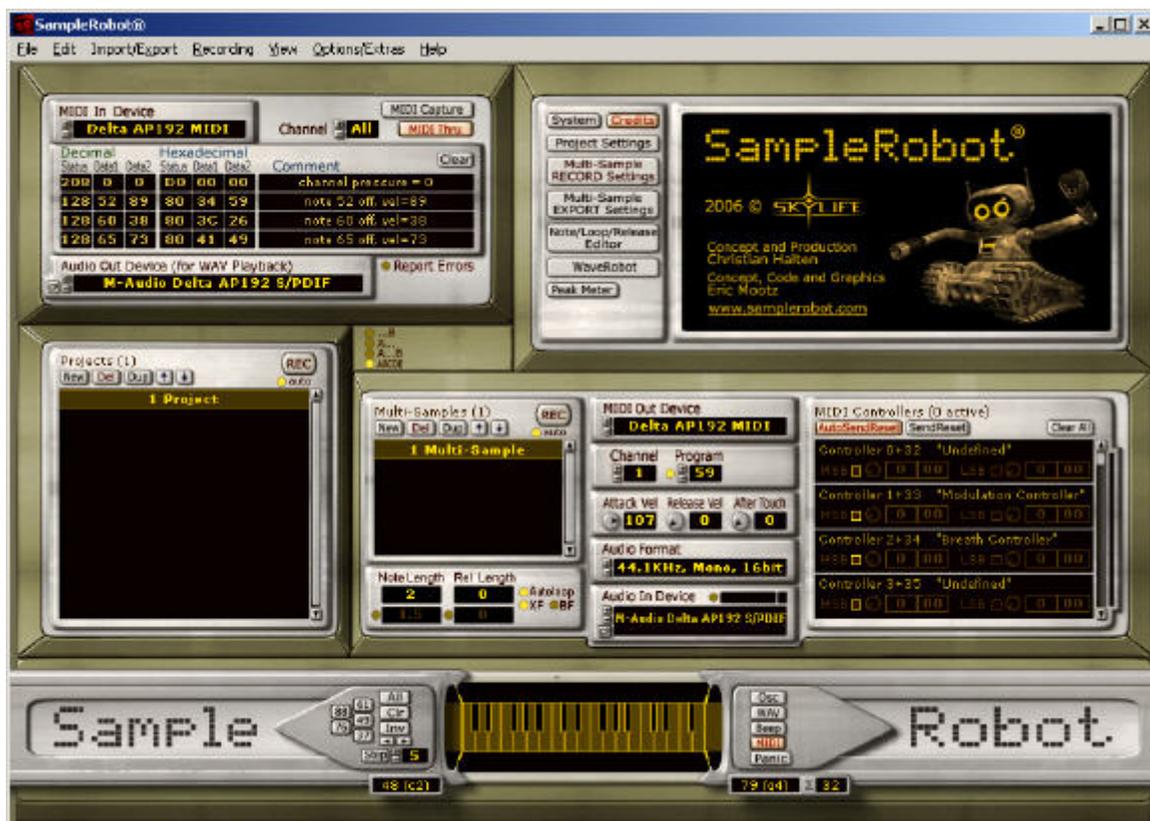
If you have done everything correctly you should be able to hit keys on your Master keyboard and hear your synth playing its sounds.

In my case (see Screenshot 1) I have set both MIDI In and Out to my Delta AudioPhile 192. MIDI in is connected to my Master Keyboard, while MIDI Out is connected to a Kenton Pro-Solo to control the Yamaha CS-10.

The second thing to do is to set "Audio In" and "Audio Out" devices. It's critical to set Audio In to the Audio Input that will be used for recording the synth's output. Also, you have to select the "Audio Format" to be recorded. You have the option to choose quality as high as 192Khz, 24 Bit Stereo, if your soundcard supports it. There's a very handy peak meter to adjust volume of your synth for optimal recording levels.

Audio Out will be used only after the instrument has been sampled, to playback WAV Files.

In this example I have set my AudioPhile 192 to its digital S/PDIF Ins and Outs. They are both connected to my Yamaha 03D mixing desk, so that recording happens in the digital domain, but you can of course use analog connections.
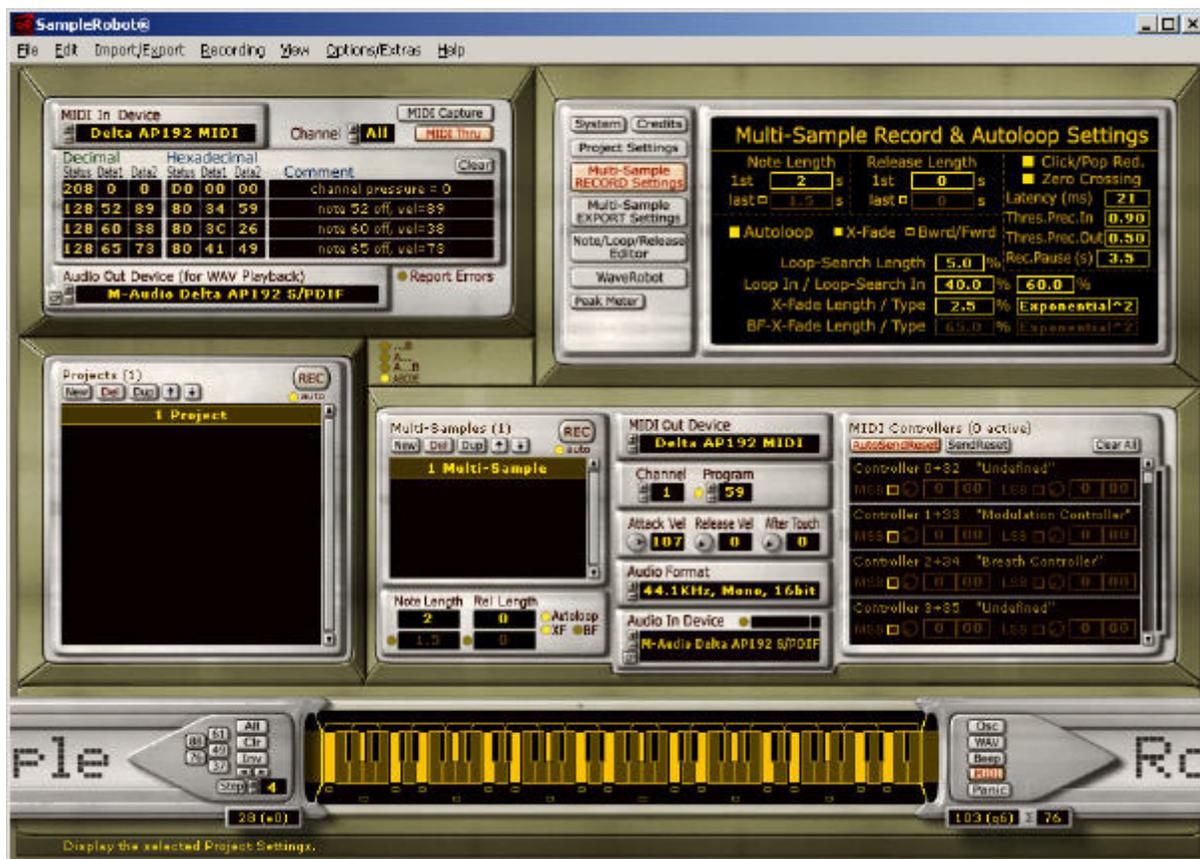
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Once all is configured correctly you can start your first sampling project.

You can set up how many notes you want to sample, by simply selecting one of the "standard" keyboard lengths (for example 49,61, 76 or 88 keys, or drag the selector to your desired custom length) and how many of these notes you want to be sampled. You can sample all the notes in the range or you can define the "step" increment to be used when sampling. In Screenshot 2 I have chosen to use a "step" of 4, meaning that a new note will be sampled every 4 semitones.

Other important things to set up are the length of the notes to be sampled. You can set "Note Length" (how long Samplerobot will keep playing each note) and "Rel Length" (how long it will record after the note has been released).

If the sound you are sampling needs to be looped (like a lead sound or a pad) then you can set Samplerobot to "Autoloop", and additionally to X-fade the Loop. If you choose Autolooping, you have some other important options. You can define the "Loop-Search length", which is the maximum length (in percentage, relative to the whole sample) of the loop to be created. I have found it quite practical to set it to 5%. Also, you can define the "Loop in/Loop Search in", which specifies where Samplerobot should search for the best looping option.

Depending on the sound you are sampling, you can set it up like I did in the screenshot below from 40% to 60%. This means that samplerobot will search for loop points starting from 40% of the total length of the sample to 60% max.

You can of course set other options (like X-fade length and its type), send different kinds and values of MIDI CC, and set up a multi-sample set (to sample sounds at different velocity for example) but I want to keep it quite simple right now.

Once all has been set you are ready to sample your synth! Just press the "REC" Button, then "Start recording" and the process begins. Samplerobot will start playing the first note you selected, will hold it for the number of seconds you have set, then release the note. It will then pause (usually for 3 seconds, but you can change it),

proceed to the next note to be sampled, and so on until the last note has been played and sampled. You can leave your room or studio, have a coffee or smoke a cigarette because Samplerobot is taking care of everything at this stage.

After the samples have been created you are ready to export them. Exporting is maybe the easiest part of the game. Simply click the "Import/Export" menu and then you can select different formats to be exported, among them some of the most popular ones, including WAVs, SoundFont2 and of course, Wusikstation!
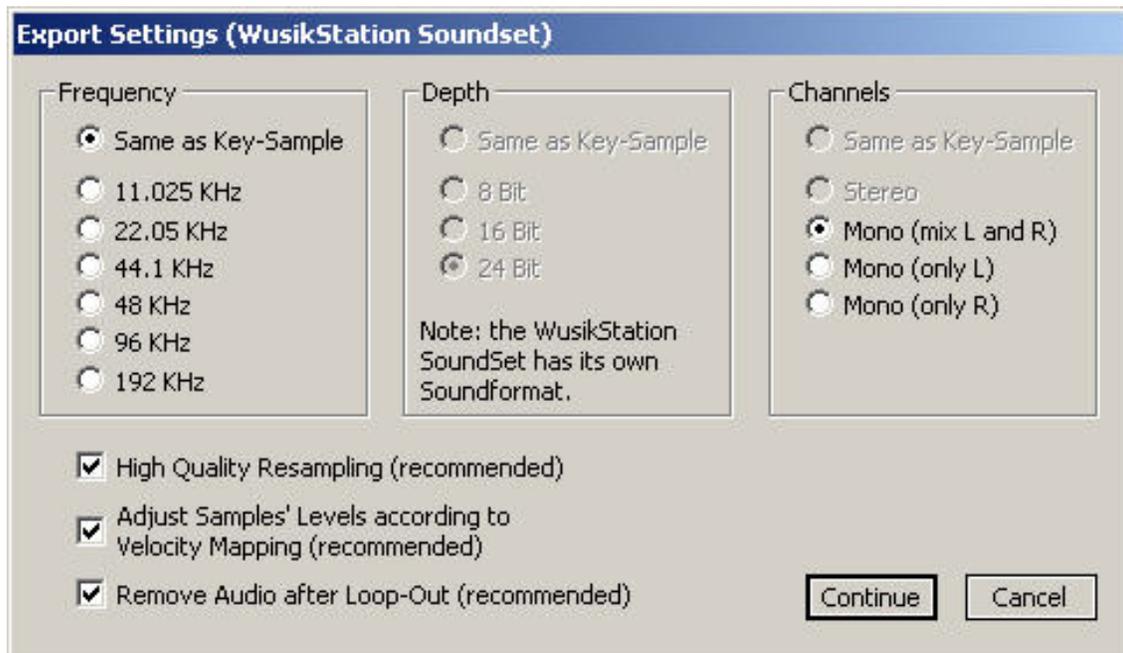
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Let's select the Wusikstation format. Now we can choose which settings we want to export. As an example, you can change the sampling rate (from 11.025 Khz to 192,000 KHz), the "Bit depth" (8, 16 or 24, but not in the case of Wusikstation which has its own sound format) and which channel to export. You can select Mono (a mix of L and R if you made a stereo sample) or just one of the two channel to be then loaded in WusikStation.

This will result in one (or two in the case of stereo) .WusikSND Files. Just launch WusikStation, load the files in the O or W "Oscillators" ….and happy preset making! Now you can see how easy it is to sample external hardware synths and export them to Wusik or other formats. Samplerobot is a really revolutionary tool for the sound designers and the software-based sample-makers out there. It will certainly save hours and hours of work needed to sample, loop and convert samples in different formats.

Samplerobot comes in two flavors, a full version and a "Samplerobot Essential" version, with limited functionality (no 24 bit support, no MIDI CC, no MIDI Monitor...) , at a much reduced price. Check out the demo at www.samplerobot.com. At the time of writing Skylife is offering a Promotional 10% discount on its products.