Converting A3000 Samples to .WAV Format for the EX

a mini-tutorial for Yamaha EX series synthesizers

by Ski

1. Introduction

- 1.1 There is a large community of Yamaha A3000 Sampler owners out there, and many high quality public domain sample sets can be found for this instrument. Numerous EX Series synth owners have been frustrated by the inability to directly import A3000 format sample sets. Yamaha's TWE sample editor, while capable of importing and converting sample data from an actual A3000, cannot read A3000 format files directly from your computer's hard drive.
- 1.2 This mini-tutorial documents a procedure to convert A3000 sample data to standard .WAV format. The procedure involves the use of a Windows PC and an audio program called Awave (with which you're probably familiar), but does not require the use of an actual A3000 sampler. From there, of course, you can edit the resulting .WAV files with your favorite audio editor, and then import them into your EX5/7/R as usual.

2. What You'll Need...

- 2.1 The "Awave Studio" audio program. Awave is an audio file format converter, an audio editor, an audio and MIDI player, and, last but not least, a wavetable synthesizer instrument editor and converter. It is available from FMJ-Software (visit at http://www.fmjsoft.com). Version 7 of Awave was used in the steps of this procedure. Other versions of Awave may work as well, but have not been tested for these purposes.
- 2.2 Some A3000 format sample files. There are a number of websites dedicated to the A3000. One of the best is Samplelibrary, at http://www.samplelibrary.net.
- 2.3 An audio editor program to clean up your converted samples, set loop points, etc. You might wish to use Awave for these purposes, or you may prefer one of the other established big players out there, like Sonic Foundry's "Sound Forge", or Steinberg's "Wavelab".
- 2.4 If you're not already familiar with the procedures for importing and working with samples in your EX, you'll need your EX5/7/R manual. The manual contains instructions on how to load .WAV files into your EX, and then to edit the resulting internal Samples, create "Waves" (Yamaha terminology) for those Samples, map the Samples across the keyboard within the Wave, etc.

3. Converting the A3000 Samples

3.1 Here we go! Get your A3000 files together. The actual audio in A3000 sample sets is contained in files that are named with the following format: "SMP_nnnn.00n", where the n's are the various numbers of the samples. These files are also much larger than the other files in the sample set, making them fairly easy to identify.

- 3.2 Create a new folder on your hard drive; let's call it the "WIP" (work in progress) folder for the purposes of this tutorial. Make copies of the A3000 <u>audio</u> files into the WIP folder (just a bit of safety, here, to avoid the potential for ruining the original files). Make sure you don't copy any of the other, non-audio, A3000 files into the WIP folder.
- 3.3 Launch Awave v7.0, then open Windows Explorer to your WIP folder. Select all the A3000 audio files in the WIP folder, then drag and drop them onto the Awave application window.
- 3.4 You will get a message dialog (from Awave) titled "Unknown file type!", warning you that Awave can't detect the file as a supported type. Click "OK".
- 3.5 A larger dialog, titled "Waveform: nnn" will pop up, followed immediately by another dialog as in the step above (assuming you drag and dropped more than one file). Click OK on each of the "Unknown file type!" dialogs you get (one for each file you dropped), until you're left looking at the "Waveform: nnn" dialog only.
- 3.6 On the "Source" tab of the "Waveform: nnn" dialog, perform the following steps:
 - a) Select "PCM 16bit" as the "Source data type".
 - b) Ensure the "Signed" option is checked.
 - c) Check the "Byteswap" option.
 - d) Ensure the "Stereo" option is not checked.
 - e) Do not change the "Sample offset" or "Sample size" fields.
 - f) Do not change anything on any of the other three dialog tabs.
 - g) Click the "OK" button.
- 3.7 After clicking "OK" in the step above, you'll see another "Waveform: nnn" dialog for each of the files your drag and dropped. Repeat the step above for each of the dialogs until finished.
- 3.8 In the Awave application window, click the "File Save all in multiple files..." menu/command.

Note: Which options you choose in the "Save all in multiple files..." dialog for file naming conventions are up to you, but here is what I feel is easiest:

- 3.9 Select the first option button in the "Save all in multiple files..." dialog, and click the "Continue" button.
- 3.10 In the "Select directory, file format and 'base name'..." dialog, perform the following steps:
 - a) Browse to the desired folder.
 - b) Enter a "prefix" for your filenames in the "File name" edit box.
 - c) Ensure "WAV Microsoft Wave file" and "PCM 16 bit" are selected.
 - d) Uncheck the "Stereo" option, leaving only the "Mono" option checked.
 - e) Click the "Save" button.

- 3.11 Congratulations! You're finished. Your converted .WAV files are now in the folder you chose in the step above (most likely, your WIP folder). You can now delete the extra copies of the native A3000 audio files that you made in your WIP folder.
- 3.12 Note that you may find that your converted .WAV files have a click in the initial attack. If so, you will have to cut the click out with an audio editor such as Awave, Sound Forge, or Wavelab. Also, sample loop points appear to be lost in the conversion process. Every sample I've converted, though, has loop points at the beginning and the end of the sample, so at least you save the step of having to enable looping. Overall, these issues are a small price to pay for access to some of the wonderful A3000 sample sets that are available for the taking.

4. Conclusions

4.1 Using the procedure in this tutorial, you now have a world of fresh new samples to use for your EX5/7/R. Use Samplelibrary, and/or search the 'Net for other A3000 sites and start downloading your favorite sounds. Unfortunately, the loops, mappings, etc. are lost in the process of converting from A3000 format to .WAV, but at least these samples are now available to EX owners. And you were going to change the loop points and sample mapping anyway, right?

Happy sample converting!

Ski July 23, 2000

Thanks to torus at the EX5Tech discussion boards. As of the writing of this tutorial, torus and I are deep in the middle of a project to bring the classic sounds of the Mellotron to the EX. I found some Mellotron samples in A3000 format that I wanted to try, and discovered this procedure in the process...

A Note from Derek and Ski

This mini-tutorial is brought to you in the hope that it will benefit your EX experience. We hope that it will turn into a series of useful documents. If you have a short topic of your own that you think could help others, we strongly encourage you to write it up, even if it's only a page or so. It doesn't have to be a huge tutorial to be useful. We can help a bit with the writing, if necessary, and we'll format it, publish it in .PDF format, and post it for you.

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