

uses less memory. However, converting the sample rate too low will lower the sound quality of the sample. What you must do is find the lowest sample rate while still keeping the sound quality the same.

Press **EDIT** and select the correct **LAYER** and **WAVESAMPLE**, as shown on page 28 of the EPS Musicians Manual. Press **COMMAND**, then **WAVE**, and use the **LEFT/RIGHT** arrows to find **CONVERT SAMPLE RATE** and press **ENTER** (have your OS disk handy).

Now the trick is, to knock the sample rate down about four increments (you have to press the **UP** arrow to lower the sample rate, oddly), then press **ENTER**. When the conversion is finished, play the keyboard and compare using the **KEEP=OLD/NEW** option. If the **WAVESAMPLE** sounds the same, press **CANCEL** and then **REDO CONVERSION** again, each time knocking the sample rate down a bit further until you **DO** hear an audible difference between the **OLD** and the **NEW** sound. When you do, press **CANCEL** again and redo the previous conversion you made, then move the cursor to **NEW** and press **ENTER** to keep it.

If you do this you might as well do it to every **WAVESAMPLE**, in every **LAYER**, of that **INSTRUMENT**. However, most public domain stuff tends to be just one or two wavesamples across the entire keyboard, and rarely do you find more than one **LAYER**. In fact, if you do find multiple wavesamples and multiple layers, the guy who did the samples probably knew what he was doing so you might want to just leave it alone.

I have found a couple problems when converting the sample rate. With larger instruments you might not always have enough spare memory in your EPS. Rather than proceeding with the conversion, the EPS might display **NO AUDITION, OK?** or **NO ROOM FOR OPERATION**. If you don't have enough memory, see below for a possible quick fix.

The other problem appears with the loop points of the converted **WAVESAMPLE**. A perfectly silent loop may end up clicking after it has been converted. There's no cure really except to leave the sample rate unconverted after all, or to go in and redo the loop after converting. I guess it just depends on how much effort you want to put into it.

TRUNCATE THE WAVESAMPLE

Several of the wavesamples I've looked at showed their **SAMPLE END** to be way after their **LOOP END**. Except when a **WAVESAMPLE** is set to **BACKWARD-NO LOOP** or to **LOOP AND RELEASE**, you can use the **TRUNCATE** feature to recover several more blocks of otherwise wasted memory. Select the correct **LAYER** and **WAVESAMPLE**, then press **WAVE**. Use the **LEFT/RIGHT** arrows to move the cursor to **SAMPLE END=xxxxxx (xx)** under the percent amount (the number in brackets). Move the data entry slider up, then down, until the amount won't go any lower. Notice that this is the same value as the **LOOP END** value. Now press **COMMAND**, then press **WAVE**. Use the **LEFT/RIGHT** arrows until you see **TRUNCATE WAVESAMPLE**, press **ENTER** (keep your OS disk handy). When finished you will have recovered a sizable chunk of memory, and it will have no effect on the sound whatsoever.

Beware though, if other wavesamples (in other layers usually) use the same **WAVESAMPLE** data, you'll have to go and **TRUNCATE** each one of them before the **TRUNCATE** will have any effect.

TUNING

Many of the sounds I got were out of tune. Sometimes the entire **INSTRUMENT** was out of tune, other times only certain

WAVESAMPLES were out of tune. In either case, an **INSTRUMENT** is practically useless until it has been tuned. You will need a tuner of some sort, or if you have another keyboard, play the corresponding note on its keyboard as you tune the wavesamples on the EPS.

Press **EDIT** and move the cursor under the **WS=x** value. Play the keyboard and select the **WAVESAMPLE** that is out of tune. If the entire **LAYER** is out of tune, then moving the cursor under the **LYR=x** value lets you make a **LAYER EDIT**, that is, any edits you make to the envelopes, panning, filter, tuning, LFO, etc will affect all the wavesamples in that **LAYER**.

Press **PITCH** and use the **LEFT/RIGHT** arrows until you see **ROOT KEY=xx FINE=xx**. Adjust the root key and the fine tuning until you are in tune.

NORMALIZE GAIN

To **NORMALIZE GAIN** in the EPS means that if a **WAVESAMPLE** was recorded at a low level, normalizing the gain will boost the entire **WAVESAMPLE** to its maximum amplitude level, which would be just below the level where its loudest point would begin to distort. This will make a quiet **WAVESAMPLE** louder, thereby giving you a little more control over what you can do with it later. Select the correct **LAYER** and **WAVESAMPLE**, press **COMMAND**, then **AMP**, and use the **LEFT/RIGHT** arrows to find **NORMALIZE GAIN**, then press **ENTER**.

FADE OUT

Some sounds, particularly sounds with ambience, like a gun shot or other sound effects, once sampled sometimes cut-off abruptly when they're played back on the keyboard. You could use the amplitude envelope to fade out the **WAVESAMPLE** but there is a better way. Using **FADE OUT** will usually soften the decay so that you don't need to mess with the envelopes at all.

Select the correct **LAYER** and **WAVESAMPLE**. Press **COMMAND**, then **AMP**, and use the **LEFT/RIGHT** arrows to find **FADE OUT**. Set **START ADDR=xxxxx (xx)** to anywhere from 85 to 98 percent. Set **END ADDR=xxxxx (xx)** to 99 percent. A quick tip here, due to a bug in the EPS' software, simply setting the end address to 99 won't always automatically set the end address. You now have to go to the value to the left of the percent and move the data entry slider down, then all the way up. Finally, press the **UP** arrow once to increment the value to the actual end address in the **WAVESAMPLE**. Press **ENTER**, leave the **SCALE DEPTH** at 3.0 for now, and press **ENTER** again. If you don't like the fade, press **CANCEL**, then **REDO FADE OUT**, and adjust the start address accordingly.

In Part II, we'll cover converting to stereo, keyboard panning, detuning, and delay.



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Bio: Steven Fox is 23, programs software as a hobby, and sells it to make a living. He is currently looking for a proper job (anywhere in the world except Seattle) either in the recording biz or as a programmer. Any offers???