
Creating Waveforms

Posted by actuel - 2008/01/13 01:37

With the advent of the Monomachine being able to load waveforms and the Machinedrum User Wave already capable of using waveforms, I wanted to start a thread on waveforms/wavetables to help shed some light on the confusion and also point some great resources. I'm still very new to the concept of making custom waveforms. But there seems a to great pool of information on how-to, what is, and just using premade waveforms. Here's some info i've found:

Waveform / Sample overview

Wavetable Synthesis wiki entry

SOS article on creating waveforms. though they're talking about the Waldorf Microwave. the customizing waveforms section is good.

Carbon's Wavetable for the XT.

Carbon's DSI Evolver Waveshape Charts (about midway down)

Waveform Calculator

i've also add a "Waveforms/Samples" to the 'Files' page. Post any and all there...

please add to the list or enlighten us if you have experience with waveforms.

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Re:Creating Waveforms

Posted by actuel - 2008/01/13 01:46

Creating continuous looped samples/waveforms in the UW walkthrough:

Once you've found a sound you want to have looped playback, you'll need to put the sound into a audio editor and set the waveform/sample to 'Loop'. It's should save it as a part of the meta data.

Then open up C6 and add you file. Highlight you file with a single mouse click, if the file saved as a looped file you will see "Loop ON Loop Start: xxxx Loop End: xxxx" (see picture). Now you want to set C6 to 'Loop On' (it's on the right next to the sample data)

<http://elektron-users.com/dmdocuments/loopfeil.gif>

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Re:Creating Waveforms

Posted by Ookpikk - 2008/01/13 02:04

Wavosaur is a great free wave editor.

<http://www.wavosaur.com/>

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Re:Creating Waveforms

Posted by pelector - 2008/01/13 18:06

actuel wrote:

Creating continuous looped samples/waveforms in the UW walkthrough:

Once you've found a sound you want to have looped playback, you'll need to put the sound into a audio editor and set the waveform/sample to 'Loop'. It's should save it as a part of the meta data.

Then open up C6 and add you file. Highlight you file with a single mouse click, if the file saved as a looped file you will see "Loop ON Loop Start: xxxx Loop End: xxxx" (see picture). Now you want to set C6 to 'Loop On' (it's on the right next

to the sample data)

<http://elektron-users.com/dmdocuments/loopfeil.gif>

You can also make the sound loop by simply switching the Loop button in c6 to Loop ON before transferring the sample. Then, it loops on the MD when sample start/end is at 0/127 and dec is on 127...)

Re:Creating Waveforms

Posted by augustus green - 2008/05/02 22:00

great resources!! Thanks Actuel

Re:Creating Waveforms

Posted by bhc303 - 2008/05/03 08:10

when the mono waveforms/wavetables feature is finished do you think elektron will make a software wave editor for the mono?
something simple like c6 would be nice;)

Re:Creating Waveforms

Posted by glitched - 2008/05/03 08:46

In preparation for the new feature (which I will not be able to take part in--I have an SFX-6 :(), I have uploaded real Nintendo NES waves. I sampled these from my NES, using MidiNES. The full octave range was captured and so were the duty cycles, for the pulse wave. Two files in the .zip. You'll have to chop the files into single cycle waves. I've tried these in my evolver and they sound damn cool.

http://elektron-users.com/index.php?option=com_docman&task=doc_download&gid=413&Itemid=30

Re:Creating Waveforms

Posted by actuel - 2008/05/03 08:49

Nice Glitched! Your after my heart with this share.

Re:Creating Waveforms

Posted by 11hzrobot - 2008/05/03 09:18

I've been using Bhajis loops to audition and edit wavetables on my Palm. It has a wave pen option that allows you to draw your own. You can also reduce the sample rate, apply overdrive or bit reduction, a bunch of other effects. But the best part is the wave pen and that I can mess around with it on the metro or waiting in line or whatever.

bhajis for the Palm nerds.

Re:Creating Waveforms

Posted by Allerian - 2008/05/03 21:08

Whoa. My first evening of playing with waveforms in the UW was amazing. I had no idea the UW would make noises like this. :ohmy:

Thanks for the nudge Ryan!

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Re:Creating Waveforms

Posted by bhc303 - 2008/05/04 18:11

Allerian wrote:

Whoa. My first evening of playing with waveforms in the UW was amazing. I had no idea the UW would make noises like this. :ohmy:

Thanks for the nudge Ryan!

is the feature finished?
where can I get the firmware?

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Re:Creating Waveforms

Posted by anselmi - 2008/05/04 19:11

glitched wrote:

In preparation for the new feature (which I will not be able to take part in--I have an SFX-6 :(), I have uploaded real Nintendo NES waves. I sampled these from my NES, using MidiNES. The full octave range was captured and so were the duty cycles, for the pulse wave. Two files in the .zip. You'll have to chop the files into single cycle waves. I've tried these in my evolver and they sound damn cool.

http://elektron-users.com/index.php?option=com_docman&task=doc_download&gid=413&Itemid=30

also try this, it's free and really good NES VSTi

<http://www.tweakbench.com/peach>

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Re:Creating Waveforms

Posted by Allerian - 2008/05/04 21:45

bhc303 wrote:

Allerian wrote:

Whoa. My first evening of playing with waveforms in the UW was amazing. I had no idea the UW would make noises like this. :ohmy:

Thanks for the nudge Ryan!

is the feature finished?
where can I get the firmware?

This is just regular UW with a single cycle wave.

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Re:Creating Waveforms

Posted by papertiger - 2008/07/06 03:52

The new Mono OS has been released. Download the new OS and the new version of C6 (to load waves) here:

<http://www.elektron.se/support/>

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Re:Creating Waveforms

Posted by bhc303 - 2008/07/06 06:33

sweet! B)

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Re:Creating Waveforms

Posted by Syn303 - 2008/07/07 22:08

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Re:Creating Waveforms

Posted by actuel - 2008/07/07 22:16

Much of this is covered in the new manual and in the other thread. The max sample length according to the manual is, 16384 samples. Another use calculated...

Doing the math - 16384 samples = 0.4 seconds.

You can load files one by one or batch according to the manual. New waveforms replace the ones currently loaded, but the default ones are always there. Meaning if you overwrite one, then delete your loading wave later, the original waveform will remain.

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Re:Creating Waveforms

Posted by Thomas - 2008/07/07 22:27

What if you use samples at a lower samplerate? Whould that change anything?

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Re:Creating Waveforms

Posted by Syn303 - 2008/07/07 22:31

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Re:Creating Waveforms

Posted by actuel - 2008/07/07 23:00

i don't see doing drum samples here with the waveforms, but you can get drum sounds with the waveforms:

http://elektron-users.com/examples/mnm_erly.mp3

http://elektron-users.com/examples/mnm_digiwave_example.mp3

not the best examples but those are all the new DigiDraw and DigiENS machines.

Re:Creating Waveforms

Posted by darenager - 2008/07/08 02:29

Just a quick tip for windows users, you can use waveosaur to do some single cycle waveforms, its freeware and actually pretty cool - <http://www.wavosaur.com/>

You can create a sample using >tools>synthesis>simple then select from various wave types and then add, mix etc others, its pretty cool and with vst support you can add some fx etc, have fun and experiment with it.

Also audacity (multi platform) can do similar stuff.

Remember to just use single cycle for best results (ie 1 complete wave period)

Re:Creating Waveforms

Posted by Syn303 - 2008/07/16 21:53

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Re:Creating Waveforms

Posted by Opuswerk - 2008/09/22 22:07

Hello,

You might be interested in the project we started using mostly single waveforms.
It has already been posted about here :http://elektron-users.com/index.php?option=com_fireboard&Itemid=28&func=view&catid=13&id=42481#42481.

For a direct link, check <http://www.defeq.com/Defeq/Welcome.html>

Hopefully it'll help the Elektron community.

Re:Creating Waveforms

Posted by actuel - 2008/09/22 23:00

Opuswerk wrote:

Hello,

You might be interested in the project we started using mostly single waveforms.
It has already been posted about here :http://elektron-users.com/index.php?option=com_fireboard&Itemid=28&func=view&catid=13&id=42481#42481.

For a direct link, check <http://www.defeq.com/Defeq/Welcome.html>

Hopefully it'll help the Elektron community.

bookmarked. thx for reminding me about this.

Re:Creating Waveforms

Posted by Opuswerk - 2008/11/21 02:52

As i got my machine, i actually am getting round using those with the MD. Without wanting to do self promotion, they are very very usefull. Lets you do actual synth notes and have quite a grit to them all. One issue though is that their pitch was compensated by Live's simpler, so they're not all playing an exact C3 note. Need to fix this btw.

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Re:Creating Waveforms

Posted by tIB - 2008/11/25 19:25

^ Plus one on these, great pack.

Ill upload any of the single cycles mnm sysex files I chop into the downloads section if that is ok?

Thanks again for this set opuswerk, its a fantastic resource.

Anyone tried the access waves yet- cant get them open myself...

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Re:Creating Waveforms

Posted by Opuswerk - 2008/11/25 22:02

I think it's definitely worth a go although it's very important to check their root note first, as they are not always on C3. nor on C :D.

If you do get round putting the pack up on here don't foreget to mention 3ot please. It wouldn't have been possible without him.

As for the access waves they work fine here. Had the same pack from elsewhere and have already been using it loads in Live. One thing I know about those is that they are all 5 semitones too high. So they also need to be pitched down.

Now if only we could get the ROM machines to play several notes at once.....

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Re:Creating Waveforms

Posted by tIB - 2008/11/25 22:29

^ Im not sure it matters in the case of the MNM, just takes the waveform in there so is pitch value irrelevant?

Ill be sure to mention 3ot when my work-based work-avoidance project is complete. Just dont tell my boss!

Ive just had a go on this laptop with the access waves and its going into wavosaur fine- maybe Ill re download them....

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Re:Creating Waveforms

Posted by tIB - 2008/12/10 11:50

Just had a go at joining x amount (maybe 20) of virus single cycle waves into the same sample for use in the MD.

Tried it out briefly-

- long retrigger for tones,
- rtime controlling pitch,
- cycle through different waves by changing the start time,
- reverse them using end,
- tweaking pitch has a nice effect on the sound.

Will try it out further and see how workable it is... if anyone wants the file ill upload it?

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Re:Creating Waveforms

Posted by actuel - 2008/12/10 12:02

TIB, i feel like someone shared the Virus waves recently. i only know because i have some in my 'MM Waveform' folder on my hdd. i'm pretty sure they came from here.

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Re:Creating Waveforms

Posted by nljdj - 2008/12/10 12:12

I have not uploaded custom wave forms in the mono yet, i am still experimenting with the ones on board. can you dumb all the stock ones and reload them individually incase I would like to ??

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Re:Creating Waveforms

Posted by tIB - 2008/12/10 12:15

^ yup, though what Ive done with these is merge (cut and paste) them into 1 longer file containing about 20 of the waveforms... a single sample containing 20 or more waves as opposed to 20 x 1 files.

(sorry if Im not making sense here!)

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Re:Creating Waveforms

Posted by tIB - 2008/12/10 12:17

nljdj wrote:

I have not uploaded custom wave forms in the mono yet, i am still experimenting with the ones on board. can you dumb all the stock ones and reload them individually incase I would like to ??

They stay in the MNM so if you delete a user loaded wave the 'stock' wave replaces it.

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Re:Creating Waveforms

Posted by actuel - 2008/12/10 12:18

nljdj wrote:

I have not uploaded custom wave forms in the mono yet, i am still experimenting with the ones on board. can you dumb all the stock ones and reload them individually incase I would like to ??

The stock ones are always there. You can overwrite them with new ones, but the moment you delete the user uploaded ones the stock ones reappear auto-magically.

=====

Re:Creating Waveforms

Posted by nljdj - 2008/12/10 12:28

actuel wrote:

nljdj wrote:

I have not uploaded custom wave forms in the mono yet, i am still experimenting with the ones on board. can you dumb all the stock ones and reload them individually incase I would like to ??

The stock ones are always there. You can overwrite them with new ones, but the moment you delete the user uploaded ones the stock ones reappear auto-magically.

ahh thats freekin perfect!

thanks for the response. Its on now.... :cheer:

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Re:Creating Waveforms

Posted by actuel - 2008/12/10 12:34

just a quick reminder, there is a MM MKII waveform category section in the files portion of the site: http://elektron-users.com/index.php?option=com_docman&task=cat_view&Itemid=30&gid=33&orderby=dmdate_published

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Re:Creating Waveforms

Posted by nljdj - 2008/12/10 12:38

actuel wrote:

just a quick reminder, there is a MM MKII waveform category section in the files portion of the site: http://elektron-users.com/index.php?option=com_docman&task=cat_view&Itemid=30&gid=33&orderby=dmdate_published

thanks, that was the thread and samps from opuswerk that sparked the idea, everyone has been saying they are great samps so its time to give the mono a revamp and freshen up some vibes this weekend
:D thanks!

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Re:Creating Waveforms

Posted by Computer Controlled - 2008/12/10 15:14

How does one GET the actual single cycle waveforms? Just record the synth audio? I have an Ensoniq VFX-SD i'd like to use as sample fodder for my MD. As well as the Evolver and Mopho.

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Re:Creating Waveforms

Posted by nljdj - 2008/12/10 16:09

You just record a sample then crop one cycle of the wave in an editor... once the signal goes from 0 to + then - and back to 0, just cut it

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Re:Creating Waveforms

Posted by tIB - 2008/12/10 16:26

Computer Controlled wrote:

How does one GET the actual single cycle waveforms? Just record the synth audio? I have an Ensoniq VFX-SD i'd like to use as sample fodder for my MD. As well as the Evolver and Mopho.

Feel free to share any you do;)

Re:Creating Waveforms

Posted by nljdj - 2008/12/10 16:29

I could sample some 303 tones. Thats about the only interesting one I could get.

Re:Creating Waveforms

Posted by nxpnsv - 2009/07/09 22:35

Anyone tried RndWave yet? It makes random single waveforms by the bulk...
<http://homepage.ntlworld.com/jez.price/effects.htm> seems capable enough, although I have no PC :(
-t

Re:Creating Waveforms

Posted by makko - 2009/07/10 08:28

nljdj wrote:

I could sample some 303 tones. Thats about the only interesting one I could get.

have you already made some? then I would love to try them if you don't mind :)
(is it possible to post some with different cutoff/reso values? I think that would be nice)

grtz makko

Re:Creating Waveforms

Posted by tIB - 2009/07/10 10:47

nxpnsv wrote:

Anyone tried RndWave yet? It makes random single waveforms by the bulk...
<http://homepage.ntlworld.com/jez.price/effects.htm> seems capable enough, although I have no PC :(
-t

Cheers! Ill try that out soon and post here what its like...

As for 303 try freesound- i think there are some on there like you are after, though as a single cycle waveform I wouldnt expect the reso to alter things too much....huh:

In the files section on here somewhere there's some single cycles of fr777 and some other old machines from the opuswerk/3ot collections; I made them for my mono for a long while and will be altering and reuploading them soon with some more to follow....

Re:Creating Waveforms

Posted by LowThreshold - 2009/07/10 22:41

Here is nice tool:P

It's an arcade like sound generator for PC and MAC

Re:Creating Waveforms

Posted by Computer Controlled - 2009/07/14 09:16

nxpnsv wrote:

Anyone tried RndWave yet? It makes random single waveforms by the bulk...

<http://homepage.ntlworld.com/jez.price/effects.htm> seems capable enough, although I have no PC :(

-t

I can't figure out how to save the waveforms as wavefiles.

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Re:Creating Waveforms

Posted by nxpnsv - 2009/07/15 18:42

I think: select AutoGeneration, AutoRecord in the lower part, and select a filename in the upper part - somehow lots of wave files will be produced... On the numerology forum some guy made and posted 1462 waveforms like this <http://five12.net/showthread.php?t=354&highlight=RndWave>

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Re:Creating Waveforms

Posted by data-line - 2009/08/15 20:50

man this is mint information.

I cant wait to get my mnm mk2 soon.:silly:

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Re:Creating Waveforms

Posted by JeffJeff - 2011/04/19 01:27

Hey guys, I was experimenting with uploading waves to the monomachine. They seem to be in there I just can't find them when I want to use them. I use a digipro wave machine and just select it using the first control know right? Doesn't seem to do much for me. Help!

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Re:Creating Waveforms

Posted by teacherofstalker - 2011/04/19 01:31

Not the Digi Pro, that's fixed - use Digi DDRW or Dens.

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Re:Creating Waveforms

Posted by JeffJeff - 2011/04/19 05:43

Ofcourse, silly me. Thanx.

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