ErR
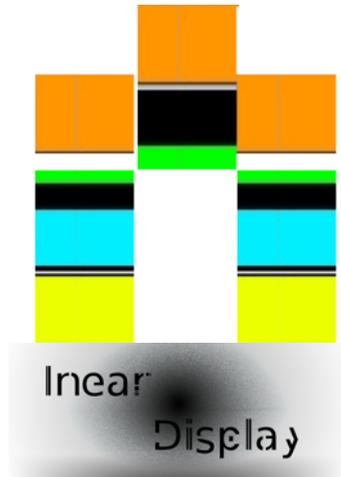

User Guide

(version 1.1)

What is ErR?

ErR is a software sampling drum machine designed to create non repetitive beats. It uses 4 monophonic gritty samplers that crossfade randomly between 4 sounds, and a probability sequencer to achieve time-varying playback of a 16 steps sequence. It is strongly oriented towards click & cut / glitch / etc... style music, but like any audio software it should be able to do other things if you tell it to...

ErR is available as a standalone application for Mac Os X and Windows. It is built with Cycling '74 Max/Msp (http://cycling74.com), so the system requirements are more or less the same as those of Max 6 :
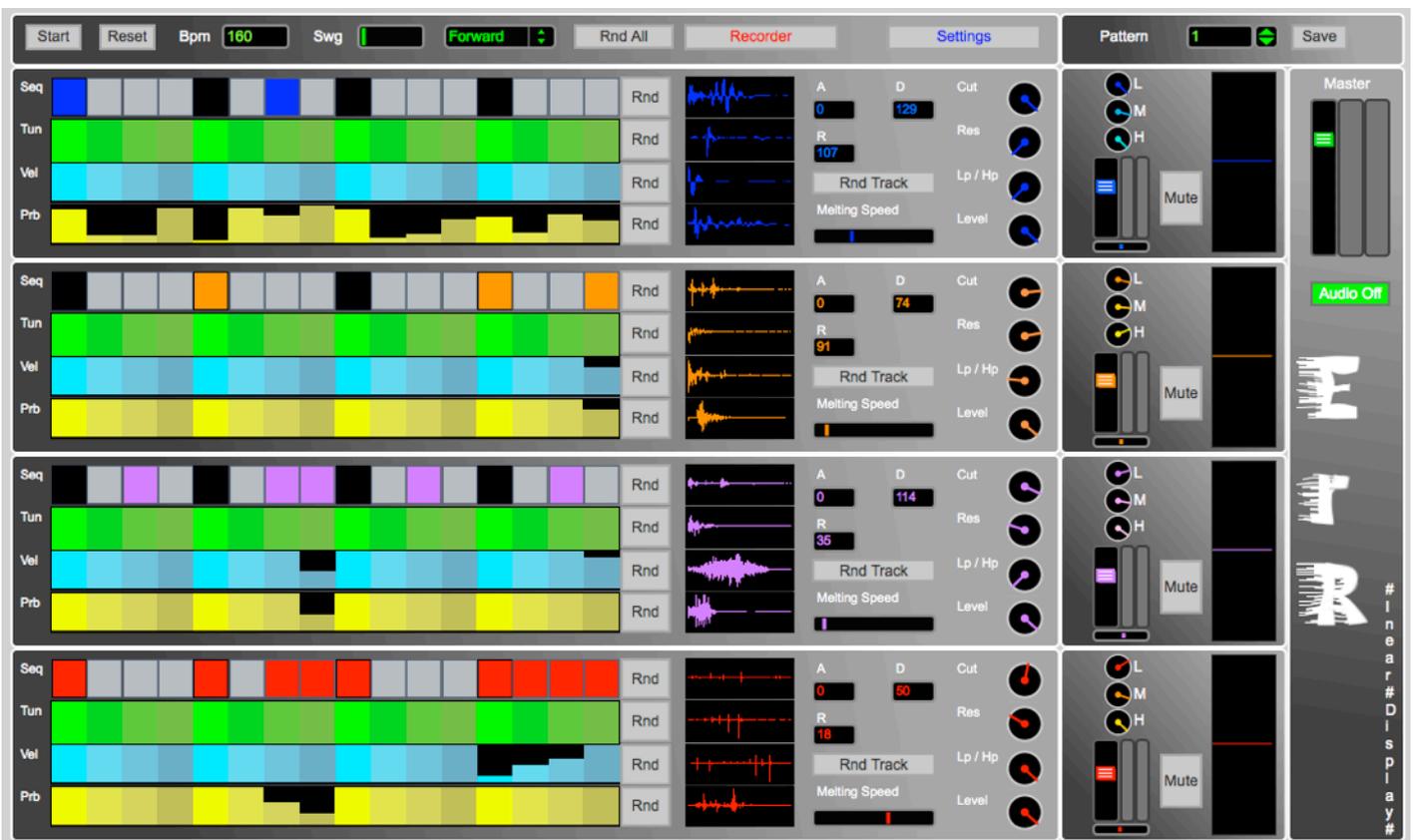
Mac System Requirements
Mac Intel machine running OS X 10.5 or later, and 1 GB RAM.

Windows System Requirements
Windows XP, Vista, or Windows 7 machine with a Pentium 4® or Celeron® compatible processor or higher and 1 GB RAM. An ASIO-compatible sound card recommended for optimum audio performance.

Once installed, when you launch ErR you should see a window like this one :

Global controls

They are located at the top of the interface :

On the left, you will find **the transport controls** : they affect all the sequencers in the 4 tracks. **The Start / Stop button** will obviously start or pause the playback of all the tracks, and **the Reset button** will rewind the sequence to the first step. Next, **the tempo field** will let you adjust the sequence's BPM. **The Swing slider** allows you to add a delay to the offbeat steps in your sequence (at minimum value, the sequence is reproduced normally). On the right of the swing slider sits **the direction menu** that will switch the playback mode of the current pattern : you can play the sequence forward, backward or bounce between the two directions. *The tempo, swing and playback direction will be saved with each pattern.*

The «**Rnd All**» **button** triggers randomization of all the 4 tracks (the parameters that are randomized will be described in the track chapter).

New in version 1.1 :
Next to the «Rnd All» button, you will find a «**Rewire**» **button** : when activated, the transport will be synced to a Rewire host. **To use this function, you must first set your audio driver in the settings window to «ad_rewire».** With this driver selected, you can route the audio output from ErR to an audio track in your master software. Also be sure to start the Rewire master before ErR. If you change your driver while using ErR, you may need to restart audio (using the «audio on/off» switch located in the master section).

The two buttons on the right open floating windows : the recorder window and the settings window.

The Recorder window :
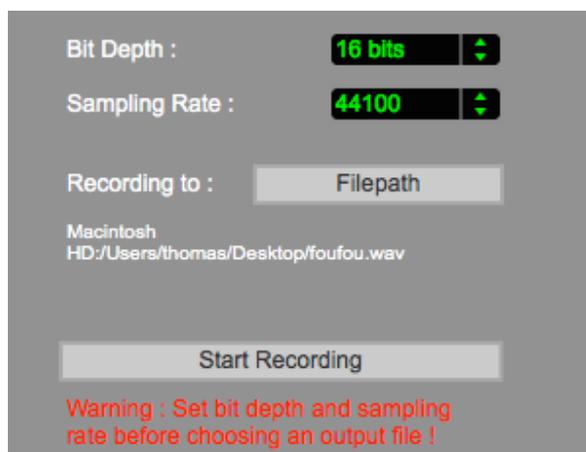
It lets you record the current audio input in realtime, so you can modify anything you want in ErR while recording. First, choose the bit depth of the output file using **the Bit Depth menu** (16, 24 or 32 bits). Then choose the sampling rate of the output file using **the Sampling Rate menu** (11025, 22050, 44100, 48000 or 96000 Hz). Be sure to set the two previous options *before* choosing the destination file with **the File path button** : a dialog will appear allowing to provide a location and a name for the output file and to set its format (.wav or .aiff). The full path of the file will then appear below the file path button. You can now click on **the Start Recording button** to begin recording to disk, click again on it when you want to end the recording.

The Settings window :
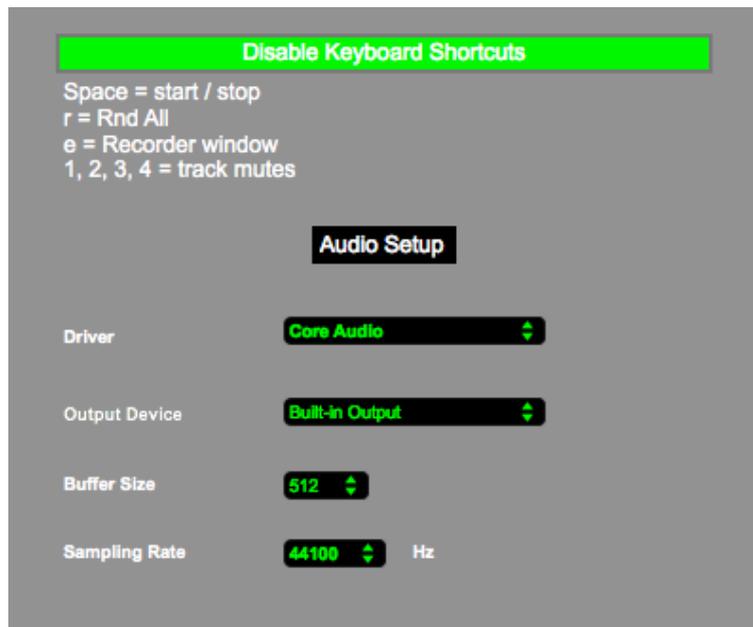
Here you have access to your audio settings (driver, audio interface, buffer size and sampling rate). You can also enable or disable **keyboard shortcuts** (enabled by default). These are the following :

◉ *Spacebar* = start / stop playback
◉ *r* = Randomize All
◉ *e* = Recorder window
◉ *1* = mute / unmute track 1
◉ *2* = mute / unmute track 2
◉ *3* = mute / unmute track 3
◉ *4* = mute / unmute track 4

Pattern Manager

It is located on the top right of the interface :

       You can store up to 1000 patterns in ErR. Informations stored in a pattern are all sequences and parameters (including the master level) as well as links to the sound files currently in use. This means that if you move a file on your hard drive that is in use in a pattern, next time you will load that pattern, the file won't load.

       To switch pattern you can drag the mouse while clicking the number box, type the pattern number in the number box, or use the arrows on the right. When switching patterns while the transport is on, the new pattern will start playing at the current playhead position.

       To save the current pattern while it is playing, simply click **the Save button**. If a pattern was already saved in the current slot, it will be overwritten.

       Note : the patterns are stored inside the application and are not accessible in an external file.

Tracks
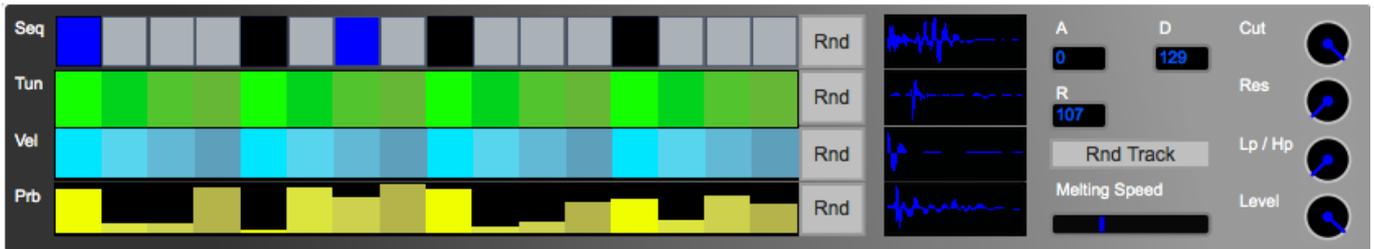
At the heart of ErR are the 4 tracks differentiated by their colors (blue, orange, purple and red) :

The left part of a track is dedicated to the sequence, and the right part to the audio generator. The tracks are monophonic and use a step sequencer.

Sequencers :

The first sequence block, named «**Seq**», is the most important : it is a classic drum machine step sequencer. Each cell of the grid represents one step of the sequence. A black one is an empty step representing a beat (1/4 of a bar), a grey one is an empty step, and a colored one triggers the sound. The step currently playing is highlighted.

Below are three other sequencers consisting in adjustable sliders for each step. Note that all the steps are displayed, but only those corresponding to active (colored) steps have an impact on the output.

The first one, named «**Tun**», represents the pitch variation for the track, the slider value is in the range -12 semitones / + 12 semitones (the middle of the range is the root pitch of the samples).

The second one, named «**Vel**», represents the velocities, ranging from 0 (silent) to full velocity.

The third one, named «**Prb**», represents the probability for each active step to produce an output, the maximum value being a probability of 100% (the step always produces an output).

On the right of each sequencer you will find a **Rnd button** : clicking on it will randomize each step of the corresponding sequencer.

Sampler :

Next to the sequencers, you will find 4 slots filled with waveforms. The first time you launch ErR, example sound samples are already loaded in these slots. To replace these sounds with your own, simply drag a .wav or .aiff sound file on a slot, its waveform will now be displayed. If you save a pattern, links to the sound files you've loaded are stored within the pattern. When you will recall the pattern later, if ErR cannot find the file anymore (if you moved it or deleted it from your system), it won't be loaded and no waveform will be

displayed. The slots accept mono sound files : if you drag a stereo sound on a slot, only the left channel will be loaded.

Two important things about ErR :

First, ErR is not meant to be a high end sampler : it only plays back mono sounds, and add a little grit to the output. What you put in is no what you get out!!!

Also, a particularity of ErR is that the 4 samples you load in each track are mixed together randomly, and depending on the crossfade rate you will define and the length of the different samples it can go from subtle changes to a lot of clicks (but sometimes, that is what you are after...). You can alter the rate, but you don't have any control over the way in which the samples are mixed together.

Next to the sample slots are the envelope controls : **A** for attack time, **D** for decay time and **R** for release time. The values are expressed in milliseconds.

Below the envelope controls, the «**Rnd Track**» **button** allows you to randomize nearly every parameter and sequence in a track. Only the sample slots, envelope controls and track level are not affected by the randomize function.

Under the «Rnd Track» button, **the** «**Melting Speed**» **slider** lets you adjust the rate at which random crossfade between the samples occurs.

Finally, at the far right, you will find 3 knobs to adjust the filter settings («**Cut**» for the cutoff frequency, «**Res**» for the resonance amount, and «**Lp / Hp**» to crossfade between lowpass and highpass filters), and a «**Level**» knob to adjust the gain of the track.

Mixer

At the right side of each track, you will find the corresponding mixer channel :
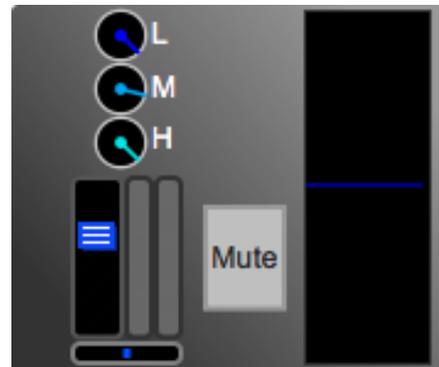
  The three dials at the top represents the equalizer settings for the current track : «**L**» controls the gain of the lower frequencies, «**M**» the gain of the middle range, and «**H**» the gain of the higher frequencies.
  The vertical fader controls the track volume (post equalizer), and the horizontal slider below lets you adjust the panning : the vu-meters next to the volume slider as well as the oscilloscope on the right can help you to adjust these parameters.
  Finally, **the Mute button** if clicked will turn off the output of the corresponding track, and when clicked again will turn it back on. The mute buttons can be controlled with the keyboard shortcuts *1* for track 1, *2* for track 2, *3* for track 3, and *4* for track 4.

Master :

  The green fader provides a control for the global output of ErR. It also has its associated vu-meters. You can disable audio processing for the whole application by clicking on **the** «**Audio Off**» button below, clicking it a second time will turn audio processing back on.