

Welcome to the readme of EL Locus Solus' Else library for Pd

# ELSE - EL Locus Solus' Externals

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## Version 1.0 beta-13 (Released september 16th 2018)

Needs Pd 0.48-2 or above

This project is still in a beta phase, where drastic changes may occur and backwards compatibility is not guaranteed until a final release. Find latest releases at: <https://github.com/porres/pd-else/releases>

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See License.txt <https://github.com/porres/pd-else/blob/master/License.txt> and <http://www.wtfpl.net/> for more details

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## Acknowledgements

Special thanks to Flávio Luis Schiavoni, for helping me out in a few things, teaching me how to code and contributing to this library with the objects: [median~] and [keyboard].

I'd also like to thank my cyclone buddy Matt Barber, for developing the "magic" code I'm using here and also contributing with the [float2bits], [brown~], [gray~] and [pinknoise~] objects.

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"EL Locus Solus" is run by me, Alexandre Torres Porres, and is a thing that organizes cultural events/concerts and music technology courses; website: <http://alexandre-torres.wixsite.com/el-locus-solus>

EL Locus Solus offers a computer music tutorial with examples in Pure Data for its courses. These are now being translated and completely rewritten to english with plans of being accompanied by a book. A first draft is available at: <https://github.com/porres/Live-Electronics-Tutorial>

These examples were first designed to work with Pd Extended 0.42-5, making extensive use of the existing objects available in Pd Extended's libraries. Even though Pd Extended's libraries form a large set of external objects, at some point there was the need of something "else". Thus, this library emerged with the goal of providing extra objects. ELSE also started by stealing some ideas and stuff from SuperCollider, such

as most of the chaotic generators UGENs.

But what started as a new library to include missing functionalities in the Pd Ecosystem (meaning libraries from Pd Extended) has now grown to encompass functionalities found in other Pd objects/libraries in Pd Extended, but with a different design and more functionalities, in order to remove ALL the dependencies of the didactic material from these other libraries - in order to rely on just a single library that's alive (in active development) instead of many projects that are now long gone abandoned or not receiving attention.

I'm also involved in maintaining Cyclone, a legacy library for Pd (see: <https://github.com/porres/pd-cyclone>). There was the idea of relying also on cyclone for this didactic material, but ELSE now also superseded even cyclone, at least for the purposes of my didactic material.

The goal of ELSE also outgrew the didactic material and includes now objects not necessarily depicted in the computer music examples. Moreover, even basic elements from Pd Vanilla are being redesigned into new objects.

Hence, ELSE is now becoming quite big library, and keeps growing and growing, and it will still take a while to stabilize. We can say then it's still in an early stage of development (that's why it's still in Beta stage) where drastic changes may occur and backwards compatibility is not guaranteed until a final release.

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## Downloading ELSE:

Look for the latest releases in <https://github.com/porres/pd-else/releases> - but ELSE is also available via 'deken' (Pd's external manager). In Pd, just go for Help => Find Externals and search for 'else'.

## Installing ELSE:

This release has been tested with Pd Vanilla 0.48-2, not guaranteed to work in any other version or in Pd Extended/Purr Data. ELSE comes with a set of separate binaries, so you just need to add the "else" path to Pd.

## Building ELSE for Pd Vanilla:

ELSE relies on the build system called "pd-lib-builder" by Katja Vetter (check the project in: <https://github.com/pure-data/pd-lib-builder>). PdLibBuilder tries to find the Pd source directory at several common locations, but when this fails, you have to specify the path yourself using the `pdincludepath` variable. Example:

```
make pdincludepath=~/.pd-0.48-2/src/ (for Windows/MinGW add 'pdbinpath=~/.pd-0.48-1/bin/)
```

- Installing with pdlibbuilder

use "objectsdirectory" to set a relative path for your build, something like:

```
make install objectsdir=../else-build
```

Then move it to your preferred install folder for Pd and add it to the path.

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## Current Object list (266 objects):

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**ARRAY:** [1] - [table~]

**FFT:** [1] - [hann~]

**PATCH/SUBPATCH MANAGEMENT:** [8] - [args] - [blocksize~] - [click] - [properties] - [window] - [loadbanger] / [lb] - [initmess] - [nbang]

**MESSAGE MANAGEMENT:** [13] - [break] - [fromany] - [toany] - [any2symbol] - [changed] - [order] - [hot] - [setmess] - [pack2] - [routeall] - [routetype] - [sig2float~] - [float2sig~] / [f2s~]

**FILE MANAGEMENT:** [1] - [dir]

**MIDI:** [17] - [sysrt.in] - [sysrt.out] - [ctl.in] - [ctl.out] - [touch.in] - [touch.out] - [pgm.in] - [pgm.out] - [bend.in] - [bend.out] - [note.in] - [note.out] - [clock] - [panic] - [mono] - [voices] - [suspended]

**MATH: FUNCTIONS:** [25] - [add~] - [add] - [median] - [count] - [ceil] - [ceil~] - [floor] - [floor~] - [int~] - [rint~] - [rint] - [quantizer~] - [quantizer] - [fold] - [fold~] - [lastvalue] - [mag] - [mag~] - [randf] - [randf~] - [randi] - [randi~] - [sin~] - [wrap2] - [wrap2~]

**MATH: CONVERSION:** [26] - [hex2dec] - [bpm] - [dec2hex] - [car2pol] - [car2pol~] - [cents2ratio] - [cents2ratio~] - [ms2samps] - [ms2samps~] - [db2lin] - [db2lin~] - [float2bits] - [hz2rad] - [hz2rad~] - [lin2db] - [lin2db~] - [rad2hz] - [rad2hz~] - [ratio2cents] - [ratio2cents~] - [samps2ms] - [samps2ms~] - [pol2car] - [pol2car~] - [rescale] - [rescale~]

**MATH: CONSTANT VALUES:** [4] - [sr~] - [nyquist~] - [pi] - [e]

**LOGIC:** [1] - [loop]

**AUDIO PLAYING:** [2] - [player~] - [sampler~]

**AUDIO PROCESSING:** [13] - [downsample~] - [allpass.rev~] - [comb.rev~] - [fbdelay~] - [ffdelay~] - [shaper~] - [crusher~] - [drive~] - [noisegate~] - [norm~] - [freqshift~] - [rm~] - [tremolo~]

**AUDIO PROCESSING: REVERB:** [1] - [plateverb~]

**AUDIO PROCESSING: FILTERS (23):** - [allpass.2nd~] - [comb.filt~] - [lop.bw~] - [hip.bw~] - [biquads~] - [bandpass~] - [bandstop~] - [crossover~] - [bpbank~] - [bicoeff] - [biplot] - [brickwall~] - [eq~] - [highpass~] -

[highshelf~] - [lowpass~] - [lowshelf~] - [mov.avg~] - [resonbank~] - [resonbank2~] - [resonant~] - [resonant2~] - [svfilter~]

**OSCILLATORS (DETERMINISTIC GENERATORS): [24]** - [cosine~] - [impulse~] / [imp~] - [impulse2~] / [imp2~] - [parabolic~] - [pulse~] - [saw~] - [saw2~] - [oscbank~] - [oscbank2~] - [sine~] - [square~] - [tri~] - [vsaw~] - [pmosc~] - [wavetable~] / [wt~] - [bl.imp~] - [bl.imp2~] - [bl.saw~] - [bl.saw2~] - [bl.sine~] - [bl.square~] - [bl.tri~] - [bl.vsa~] - [bl.wavetable~]

**CHAOTIC GENERATORS: [23]** - [brown~] - [clipnoise~] - [crackle~] - [cusp~] - [fbsine~] - [fbsine2~] - [gbman~] - [gray~] - [henon~] - [iked~] - [latoocarfian~] - [lorenz~] - [lfnnoise~] - [lincong~] - [logistic~] - [quad~] - [rampnoise~] - [randpulse~] - [randpulse2~] - [standard~] - [stepnoise~] - [pinknoise~] - [xmod~]

**PHYSICAL MODELLING: [1]** - [pluck~]

**SIGNAL ROUTING: [10]** - [balance~] - [pan2~] - [pan4~] - [rotate~] - [xfade~] - [xgate~] - [xgate2~] - [xselect~] - [xselect2~] - [mtx~]

**CONTROL: [18]** - [adsr~] - [asr~] - [autofade~] - [autofade2~] - [decay~] - [decay2~] - [envelope~] - [envgen~] - [fader~] - [function~] - [glide~] - [glide2~] - [ramp~] - [susloop~] - [sequencer] - [sequencer~] - [impseq~] - [lfo]

**TRIGGERS: [24]** - [bangdiv] - [coin] - [coin~] - [dust~] - [dust2~] - [gatehold~] - [gate2imp~] - [pimp~] - [tempo] - [tempo~] - [pulsecount~] - [pulsediv~] - [sh~] - [schmitt] - [schmitt~] - [status] - [status~] - [trig.delay~] - [trig.delay2~] - [toggleff~] - [timed.gate~] - [match~] - [trig2bang~] - [trighold~]

**SIGNAL ANALYSIS: [10]** - [changed~] - [changed2~] - [elapsed~] - [lastvalue~] - [median~] - [peak~] - [rms~] - [mov.rms~] - [vu~] - [zerocross~]

**GUI: [18]** - [mtx.ctl] - [pic] - [colors] - [envelope] - [slider2d] - [display] - [display~] - [out~] - [gain~] - [gain2~] - [keyboard] - [graph~] - [meter~] - [meter2~] - [mix2~] - [mix4~] - [setdsp~] - [openfile]

**EXTRA: [1]** - [output~]