

xYzee!

An Automatic Audio Toy for Pure Data

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1 Introduction

xYzee! is an automatic music generation machine for Pure Data. It uses two voices (Bass and Lead) and generates melodic patterns based on a message passing scheme. The audio generation is provided by `bassemu~` external which, despite it's name, is in charge of the lead voice too. Two parallel instances of `bassemu~` are used for this. `Bassemu~` output passes through a multi-tap delay effect. A bit of reverb is used to have more spice in the recipe. A messaging sequencer (16 steps) is the heart of the bass and lead audio generation. Melodic sequences can be deterministic, random or intermediate. A screenshot of the instrument is provided in Figure 1. **xYzee!** is a PureFun™ project ;-).

2 Dependencies

xYzee! depends from:

- The powerful `bassemu~` (<http://home.mamalala.de/bassemu-0.3.tgz>) by Christian Klippel is in charge of the audio generation. Note: pre-compiled versions of `bassemu~` are provided for Linux, Windows and Mac OSX, both ppc and i386 architectures (in this last case rename `bassemu~.pd_darwin_i386` or `bassemu~.pd_darwin_ppc` according to your needs to `bassemu~.pd_darwin` and you have done it¹).
- the cyclone lib for what concerns the phase scope. Cyclone can be found in the Extended Pure Data distributions (by H. C. Steiner <http://at.or.at/hans/pd/installers.html>) or in the Pure Data CVS Repository.
- The images (logos) are handled by `ggee image` external.

Indirectly, a lot of people contributed to this instrument. In all the cases I was able to do it, I put references within the patches to their original authors.

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¹Thanks hardoff, Hans and Steffen for the objects.

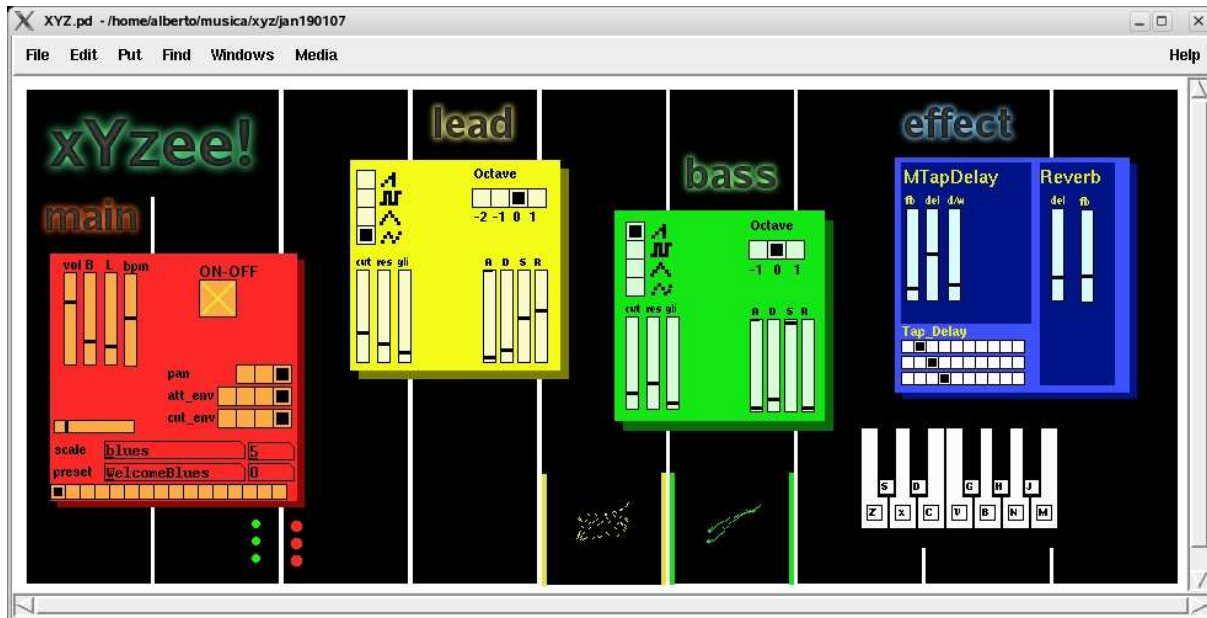


Figure 1: xYzee! Intefrace

3 Install

Unpack all the files in the archive into a selected directory, for example `./<yourpddirectory>/extra/xYz`. Then open `xYz_main.pd`. xYzee! was tested on Windows and Linux.

4 A word about GUI controls

- Saw, square, triangle and sine waveforms can be selected for both bass and lead in the yellow and green boxes
- pitch control for both bass and lead is available for both bass and lead using the octave boxes
- a pan control provides sinusoidal, “rectangular” and random placement of the voices in the stereo panorama
- separate controls for Bass (B) and Lead (L) volumes is provided in the red “main” square
- an overall volume control (vol) regulates to output in the Red “main” square
- a BPM (Beats per Minute) control regulates the speed of the preset in the red “main” square
- Cutoff (cut), resonance (res) and glide (gli) parameters are supplied for each voice (yellow and green squares)

- An ADSR envelope is applied to the bassemu~ output (yellow and green squares). The attack time is triggered by a dedicated envelope set in the red main window. The same is true for the cutoff parameter: the cutoff slider sets the initial level then the current value are set by a cutoff envelope generator.
- a note keyboard (activated by the lower keys of the PC keyboard) in order to set the base key
- The messages (notes) input to bassemu can be mapped on a specific scale using the slider in the red main window. At the moment nearly 50 scales are available. Scale = 0 means that the notes are not filtered by any scale, i.e. the messages are passed as they are.
- A set of 14 presets are available to the users.

5 Presets

To add new presets the following actions need to be done:

- add a new preset set of parameters into XYZ_maincontrols \rightarrow XYZ_presets
- add a new sequence for lead into XYZ_maincontrols \rightarrow pd lead_seq \rightarrow pd preset_lead
- add a new sequence for bass into XYZ_maincontrols \rightarrow pd bass_seq \rightarrow pd preset
- note: lead needs 16 steps message, bass only 8.
- done!

6 Warranty

No warranty at all. The patch is provided "as-is", without any express or implied warranty. In no event shall the author be held liable for any damages arising for use of this patch.

7 License

xYzee! is distributed under the conditions of the GNU Public Licence v.2. You should have found a copy of it together within the archive.