

Mondrian

Alberto Zin*

14/07/2006

1 Introduction

Mondrian is a noise generation and visualization machine for `pd`. Why is it called “Mondrian”? Take a look at Figure 1, you’ll sure recognize something similar to a Mondrian painting. It is a small toy assembled in few hours using existing `pd` components like `cyclone`, `creb` and `grid`. Since I think it is not completely bad or ugly, I’d like to share it. If you like it (or even if you don’t) leave me a little feedback on my e-mail address reported below.

2 Dependencies and Install

Mondrian has three main dependencies:

- *creb* library by T. Schouten
- *cyclone* library by K. Czaja
- *grid* from unauthorized library by Y. Degoyon

plus the usual *expr*. Extended Pure Data distributions by H.C. Steiner (<http://at.or.at/hans/pd/installers.html>) contains all these three libraries. On File - Startup, add the following keys: “creb”, “cyclone”, while for “grid” add the path to the “unauthorized” library, (File - Path: usually `< your_pd_home > /extra/unauthorized`, at least this is how my settings are). Make sure that they are working on your system before opening the patch `mondrian.pd` (otherwise half of the fun is lost ..) The core of Mondrian is the cross frequency modulation object `xfm~` from the `creb` lib. The visualization is done by `scope~` from the `cyclone` library while main controls are handled in the gui by few sliders and the `grid` external. Mondrian was tested in Linux and WinXp using the extended `pd` version 0.39.2, test 4. The CPU load is minimal, nearly 4-5% on my Athlon 2400+.

*Alberto.Zin@poste.it

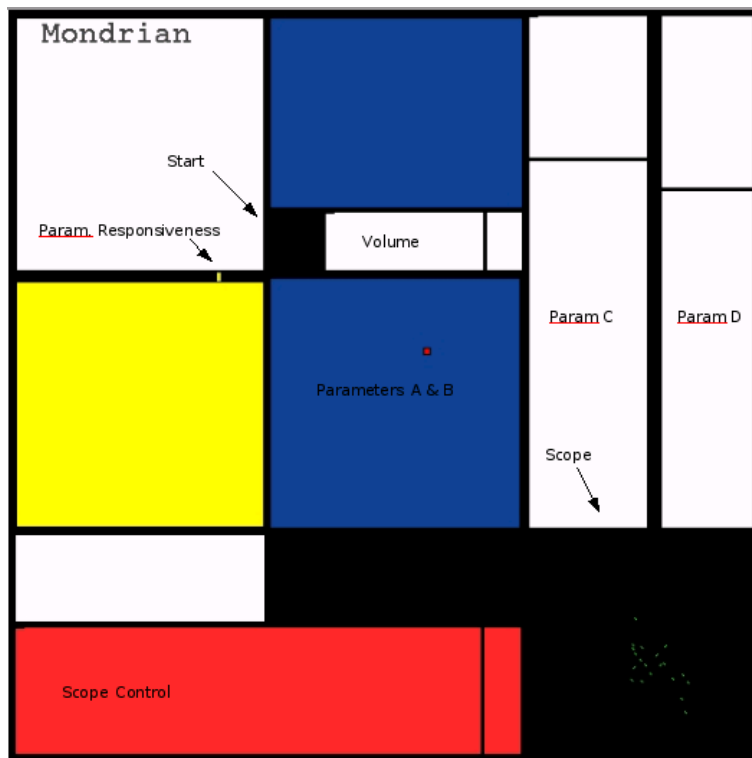


Figure 1: Mondrian Intefrace

3 Use

First of all press the black Start button in Figure 1, then move the white Volume Slider. Now you should see something like a green point on the scope in the lower right part of the patch. The tweak with the parameters A, B, C and D in Figure 1 and hear the results. Funny, isn't it? If you want more or less audio responsiveness on parameter change then move the yellow "responsiveness" slider in 1. If you look at the scope you should see points moving around. There is a scope zoom control using the red zoom slider.

4 Core

Mondrian core is the `xfm~` external from creb library. It is composed by two `xfm~` instances one of which is mixed with a delayed output of itself. You can see it in the hidden pd subpatch called `subpatch` (did you find it, didn't you ? :-). The basic scope controls are in the subpatch called `scope_ctr`.

5 Motivations (semi-serious..)

When I first hear the `xfm~` object I thought that it sounded really cool! But how does it looks like? So I attached a `scope~` object and Lissajous figures started to appear on the

screen. Wow! That was nice .. I can stand half hours in front of the screen looking at the scope in creating stable and complex figures.. It is interesting that with few tweakings on the `xfm~` parameters, and a delay line (like in the creb examples - thanks Tom!) you can get the most amazing sounds from complex, chaotic oscillators with just control over 4 parameters. I really like transitions from stable to unstable behaviour of the oscillators. By the way, I think that the User Interface is designed to be something different from an usual `pd` patch (no objects, cords, comments etc. - or at least they are carefully hidden).

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

Mondrian is distributed under the conditions of the GNU Public Licence v.2.