

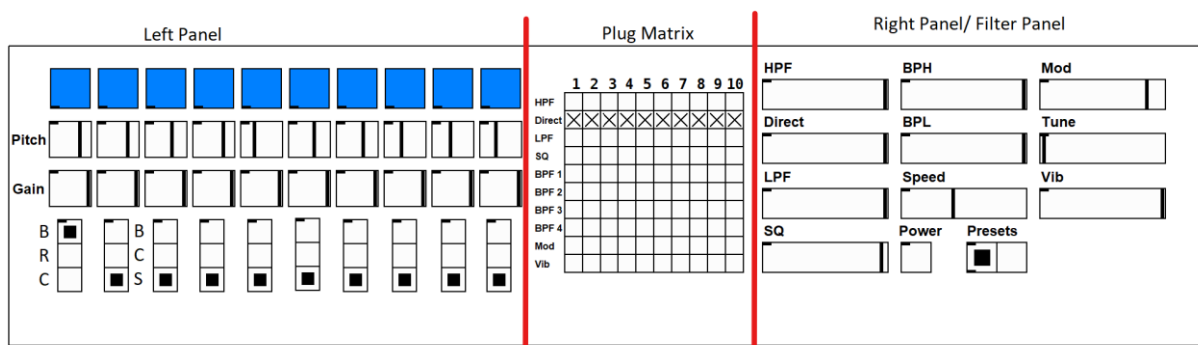
Andromatic user guide

This is a screen-based emulation of the Andromatic, a polyphonic synthesizer from 1968, owned by Swedish composer Ralph Lundsten. This program requires Pure Data to run. Pure Data is an open source visual programming language for multimedia, and you can download it from [here](#).

To run the Andromatic you need to download the zip-file and open “Andromatic.pd” making sure that the other files are in the same folder. A user guide is included, helping you to get started with the program. To get a better understanding of the original Andromatic, you can watch [this short YouTube clip](#).

Using the Andromatic

When opening “Andromatic.pd” you will be greeted with the following picture. Divided into three panels focusing on different functionalities. On the right panel you will be able to create sequences/patterns with the radio buttons at the bottom and control the individual sound of each step. In the middle you will find the plug matrix where you are able to activate or deactivate filters. In this setup, the “Direct” is active. On the right panel you can control the volume of the filters, the amount of modulation and vibrato, the overall speed of the sequence and the overall pitch. You will also find the power button and two different presets to get you started.



Creating a sequence

To create a sequence, you use the radio buttons/ the switches at the bottom. The 10 switches determine the mode for that step. The first switch reads, from top to bottom, break-reset-count (**B-R-C**). Steps two through ten reads break-count-shift (**B-C-S**). A 10-step shift register would therefore be described as **BSS...S** (which can be seen in the picture above) and a 10-step binary counter as **CCC...C**. You can create several short sub-sequences by combining these modes. A shift register needs a break to initiate the sequence, meaning if you want to create a 3 step one it would look like BSS. A sequence looking like **BSSCCCCBSS** is divided into three subsequences, meaning that the second section only triggers after the first one. This particular one is a 3-step shift register followed by a 4-step binary counter and lastly a 3-step shift register again.

To start a sequence, you activate the **power** button at the bottom left. The **reset mode** on the first step resets the whole sequence, meaning that the steps in **break** will be active and the

steps in **count** and **shift**, inactive. To **start the sequence** again you must switch the first mode to either **break** or **count**. You can control the speed of the sequencer with the **speed** slider on the right-side panel, above the power button.

Sound

To get sound you need to activate a filter to the corresponding step in the plug matrix. The steps are organized along the x-axis and the filters on the y-axis. The **direct** filter is the direct line/unfiltered signal. If you activate it, you will hear the unfiltered signal of the active step.

The individual **pitch and volume** can be controlled at each step, above the mode-switch. To tune the overall sound, you use the slider on the right-side panel.

Filters

There are 10 rows in the matrix, each row corresponding to a filter that you can control the volume of.

HPF (High Pass Filter)	Removes low-frequency sounds
Direct	Bypass any filtering, leaving the original sound
LPF (Low Pass Filter)	Removes high-frequency sounds
SQ	Lowers the pitch of the sound by one octave
BPF 1-4 (Band Pass Filters)	These come in four sets (1-4), each with: BPH (High): Controls the volume of the band pass filters with a higher cutoff frequency (1 highest, 4 lowest) BPL (Low): Controls the volume of the band pass filters with a lower cutoff frequency (1 highest, 4 lowest)
Mod (Modulation)	This effect only works with a Band Pass Filter active. It alters the sound in a specific way
Vib (Vibrato)	This effect works on the other filters . It creates a vibrato effect