Model 268e Graphic Waveform Generator

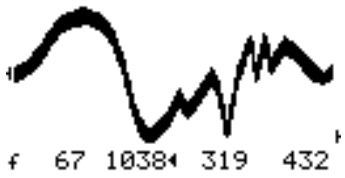
firmware version 2.2.3

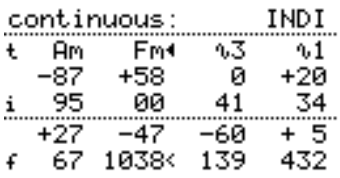
Consists of four oscillators with either a shared or independent dynamic waveform database. Imagine an oscillator as a virtual logger tape with an observable window upon which any kind of external processes can be recorded, graphically represented and immediately played back in an audio domain. The user interface includes display, speed control of virtual tape, various data input facilities, modulation bus control, logger algorithm selector and the small but useful computational engine that expands the functionality even further.

First of all, on algorithms. They define exactly how the logger behaves. The ***continuous*** is much like a meteorograph tracking ever-changing weather patterns with a never-stopping high speed reel. The ***m'detector*** is like a seismograph and stays idle until some activity is detected. The algorithm is selectable with the yellow button or from an external pulse. Each algorithm's input source can be set in an easily mastered one-page menu. Just push the ***mod bus handle*** knob followed by the ***ALGORITHM*** button to set the needed algorithm and dial in its input source. Pushing the knob again will force the cursor to jump to the oscillators settings - select an object to change, push to "catch" it and dial in the appropriate value. Push again to select another object, and so on. Use the ***steady*** button to escape from the menu.

The ***manual*** knob accesses the first data input facility driving the virtual stylus (***MAN*** in the menu). The second one accesses the cv input labeled ***external*** (***EXT*** in the menu), while the third one accesses the grey bananas array and named in menu as ***INDI***, implements the per-oscillator drawing.

When in main screen, turning the ***mod bus handle*** knob will change the destination of the pitch control knobs which, in turn, gives the ability to tune oscillators individually (left pic). When in menu, the pitch cv attenuvertion can be set on the line right above the frequencies (right pic).





The ***steady*** button acts in two different manners depending on the selected algorithm. In ***continuous***, it freezes the virtual tape until pressed again or an external pulse occurs on the related input.
In ***m'detector***, it sample-and-holds the active input and fills the tape with constant value forming a horizontal line.

The ***external*** input is connected to two special outputs. The one labeled ***df*** produces a differential function, in other words, the faster the cv the higher the voltage on violet banana output. The pulse on the red banana occurs each time the cv direction changes. All these might be useful in a situation when a time-spectrum correlation is desirable.

The ***CONTROL & MODULATION INPUTS*** section is responsible for pitch, modulation input and depth. Modulation buses can be controlled in the menu, including type, attenuvertion and index. Notice, even engaged as a waveform source for either or both algorithms, those inputs preserve the ability to control the modulation depth.

Each oscillator can be separately switched to the fixed sine wave generation with variable frequency multiplier, from 1 to 3. This particular feature is labeled in the menu as ***s1…3*** and might be useful for sourcing further modulations.

Holding ***mod bus handle*** knob connects or disconnects the module from the store/recall functionality of the Buchla 200e series compatible preset management devices. If no preset management device is present in the system the 268e's last configuration still can be stored by holding ***mod bus handle*** knob and will be automatically recalled on next startup.

Holding ***ALGORITHM*** button forces the system menu to show up. Here the user can tweak the brightness/inversion, adjust the mod inputs amplification, set the Nyquist frequency and the screensaver time. Press the ***steady*** button to revert to normal operation.

P.S. What you see on the display is just a half of waveform. To avoid undesired discontinuities the resulting one consists of two symmetrical halves forming something like a "wavelet", visually.

Keen Association - Moscow