

Spectre

The Electronic Music Studios' (of Putney, near London, U.K.) **Spectre** was developed by Richard Monkhouse and first appeared in 1975.

It used a hybrid of analog oscillator techniques and digital pattern storage brought together by a set of mixing and gating circuits which then were assigned to colouriser inputs also in the machine. The output was then encoded to a video signal and available for monitors or video tape recording. The machine also had a camera input for live video input, such as feedback.

embed CorelPhotoPaint.Image.7 Object1

The analog circuitry provided two voltage controlled oscillators generating sine and square waves which could operate at low frequencies, vertical sync rate (producing horizontal bands) or horizontal sync rate frequencies (producing vertical bands). These oscillators could run in two modes: either synchronised with the edges of the image or free running, thus slewing across the screen in an "uncontrolled" manner. An audio input was filtered to provide a contour of the treble and bass ranges of the input which could be used as control voltages. Sliders allowed control of the image signal parameters.

A digital signal matrix produced horizontal and vertical bands which could be combined by overlay gates. There was an edge generator which picked out the borders of a signal, a delay or echo generator which repeated signals across the screen. Shape generators which could be modulated by analog control voltages could be combined to give a selection of sixteen different shapes built from circles, rings and sectors of the circle.

All signals were combined on a pin board matrix where outputs of functions could be sent to inputs of other functions, allowing combinations of signals. The outputs are then assigned to several colouriser inputs and then encoded into a video signal.

The external video input had a multi-layer luminance slicer (key signal generator) available which allowed the synthesised image to be inserted into particular areas of the camera image

Warren Burt bought one for the Music Department at Latrobe University and made a number of works with it. David Chesworth and others also used it. The images here are from David Chesworth's *Indefinite Objects*.