

Technical Description

ORPHEUS INTERACTIVE ANIMATION SYSTEM

Orpheus is a computerized tool which automatically synchronizes video imagery with any form of music or audio. Video frames are stored as digital information within the memory of graphic computers and displayed in any order accompanied by one of over 70 cinematic transitions (eg. forward, backward, flashing, fade in.). Specific video imagery and cinematic transitions are automatically selected by music entering the system through a MIDI (musical instrument digital interface) connection. A user defined control file allows flexible correspondence between music type, frame selection and cinematic transitions. For example, a control file may define that an increasing musical interval in the third octave will cause the display of a bouncing ball in a forward motion; a decreasing interval, however, will display the ball in a backward motion. If the music changes octaves, a different cinematic transition and frame selection will become active.

Differentiation of music type is not limited to octaves; sound-image correspondence can be defined according to music loudness, pitch, note density, note duration, rest duration, chord type, timbre or measure. Using these musical descriptors, different music types can be associated with specified frames and cinematic transitions up to a maximum tempo of 30 notes per second.

In general, Orpheus is a digital video editing system controlled through improvised or intricately composed music or audio. Because the system analyzes music and provides synchronized video imagery in real time, the system can be used for live performance, video installations and video tape production. During a performance, two Orpheus systems are utilized by combining the video output of each machine, one providing background imagery and the other foreground. Each system will contain different frames and each is programmed to respond differently to incoming music. The combined video signal is displayed to an audience through a large screen video projector. Although sound-image correspondence is programmed prior to an event, changes can be introduced during a performance even while images are being displayed. Performances have been presented with vocalists and improvising musicians playing trombone, saxophone, sampling keyboard and synthesizer.

Video Tape Description

ORPHEUS: CURRENT DIVERSIONS (1990) 7:30 min. NTSC stereo

Don Ritter: video editing, imagery, programming, and sound-image correspondence

George Lewis: improvised trombone and trombone controlled synthesizers during documentary sequences

This video contains documentary excerpts from various interactive video performances presented during 1990. These excerpts primarily come from the piece "Media Play" in which everyday activities, such as hand washing, shaving, teeth brushing and working are controlled by improvised trombone. The tape also contains a discussion of Ritter's motivation for interactive video performances and provides a demonstration of Orpheus, his interactive video system which synchronizes video with music or audio.