

# ADO™ 1000 DIGITAL EFFECTS SYSTEM

## General

Designed for broadcast and production facilities, the ADO 1000 system provides the sophisticated effects of the ADO family at an affordable price.

The basic 2D ADO system provides flips, tumbles and zooms. With the 3D upgrade, the system is capable of three-axis rotation and true perspective.

Powerful options like the Digi-Matte™ key processor and Digi-Trail™ target framestore give the ADO 1000 system capabilities unmatched by any other effects system.

By following an upgrade path, the ADO 1000 system's field-based processing can be converted to the frame-based processing of the ADO 2000 system. It can also be upgraded to include all the spectacular effects of the ADO 3000 system, with Infinity™.

The system can be expanded to include up to four channels and eight control panels. And all the options and upgrades can be installed at your own facility.

The ADO 1000 system also gives you instant access to thirty on-line, pre-programmed effects that can be incorporated into live programming with one or two keystrokes.

More versatile than a "shot-box," this feature allows you to:

- Run effects forward and backward
- Slew from any present picture location to the beginning of any effect
- Specify 10 position effects in 3D space, and choose different types of transitions to reach those positions
- "Trim" each effect as a minor adjustment for X and Y position, and/or size

The ADO 1000 system is designed to be an integral part of a complete production facility, so it interfaces easily with your existing equipment.

Input and output options are available for all signal standards, including Component Analog and CCIR-601 Digital format.

A SMPTE RS-422 serial editor port lets you run effects from the control panel of your serial editor (like the Ampex ACE™ editor). And interfaces are available for the AVC switcher and the ADO system for live, error-free effects control from your Ampex switcher.

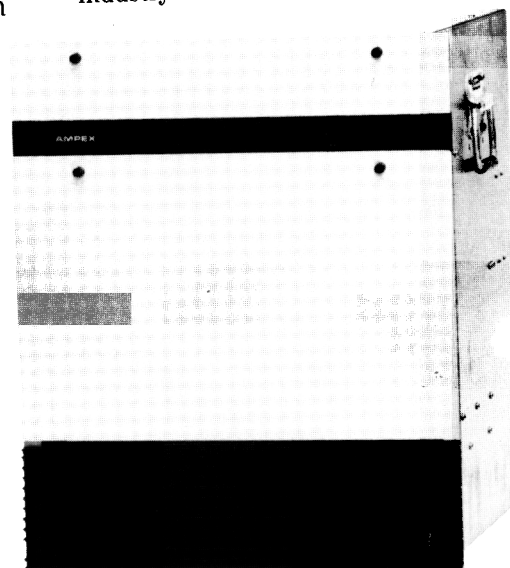
Superior computing power (up to 526 million computations per second) gives the ADO 1000 system control flexibility unavailable on other systems.

Keyframe information can be monitored in two ways: *all* the parameters for a given keyframe, or a *single* parameter across *all* keyframes. This display gives you a comprehensive picture of your effects, and how they're created.

Versatile "keyframe flags" act as switches; they can turn any variable within an effect on or off at any time during the effect.

Cataloging effects can be by either number or name for fast, accurate recall.

The ADO 1000 system combines field-based processing for moving video with frame-based processing for frozen video. Separable architecture, eight-point digital filtering, 32-point spatial interpolation, adaptive comb filtering and chroma signal predecimation all contribute to the finest picture quality in the industry.



## Features and Effects

- 30 On-line Effects with One or Two Button Execution.
- A/B Video Inputs
- Continuously Variable Compression and Expansion
- Variable Aspect Ratio
- Horizontal and Vertical Mirrors
- GPI Control Input
- Independent Picture and Key Cropping
- Highly Adjustable Mosaics
- Posterization and Solarization
- Luma and Chroma Reversal
- Picture Blur
- Field or Frame Freeze
- Full-frame Manipulation of Frozen Video
- Adjustable Soft Key Border Edges
- Multi-Panel, Multi-Channel Software
- Logical Keyframe Programming
- Straightforward Numerical Programming
- Comprehensive CRT Display
- Channel Identification
- Global Motion Control
- Auto Cube Mode
- Selectable Motion Types
- Forward/Reverse Run Modes
- Alphanumeric Effect Storage
- Disk Copy Function
- Serial Switcher Interface
- Serial Editor Interface

## Optional Features and Effects

- True 3D Rotation and Perspective
- Digi-Matte™ Key Processing
- Digi-Trail™ Target Framestore
- Component Analog (RGB, YUV) Kit
- SMPTE/EBU CCIR-601 (4:2:2) Digital Interface
- Up to Eight Control Panels
- Up to Four Signal Systems
- Digital Combiner

## Specifications

### PERFORMANCE

Luminance frequency response: NTSC  $\pm 0.5$  dB to 4.2 MHz; +0.5 - 1.0 dB to 5.0 MHz  
PAL  $\pm 0.5$  dB to 4.5 MHz; + 0.5 - dB to 5.0 MHz

Input video level range: +2 dB

### DIGITAL SIGNAL SAMPLING

Luminance sampling rate: 13.5 MHz

### SIGNAL SYSTEM INTERCONNECTS

Video Inputs: Two, BNC 75 Ohm, 1 Volt, Composite, Analog Encoded  
Key Inputs: Two, BNC 75 Ohm, Composite or Non-Composite, Analog Encoded (white or black in key hole)  
Video Outputs: Two, BNC 75 Ohm, 1 Volt, Composite, Analog Encoded  
Digital Signal Data: To Combiner: Balanced ECL Digital Data, 15 feet max, multi-wire cable supplied with Concentrator  
Digital Control Data: RS-422, 4-wire plus shield, 9-pin 'D' Connector Communication line. Remoteable 2000 ft. (600 meters between control panel and signal system)

### CONTROL SYSTEM

Detachable keyboard with 3-axis joystick Remote data display output (non-synchronous)  
9-inch CRT for data display GPI Trigger Input  
Mini-floppy disk drive for effect archiving Serial Control — ACE Interface

### POWER CONSUMPTION

110-120 VAC, 60 Hz or 220-240, 50 Hz — single phase

Signal System: 1400W

Control System: 100 W

### PHYSICAL

Signal System Chassis:  
Dimensions: 22.72" (58 cm) H x 17.5" (44.5 cm) W x 22" (55.9 cm) D  
Weight: 200 lb (90 kg.)  
Can be mounted in 19" equipment rack or free-standing as a tabletop unit

### Control System:

Monitor Housing contains 9" CRT and mini-floppy disk drive  
Dimensions: 11.75" (30 cm) H x 15.25" (39 cm) W x 14.5" (37 cm) D  
Weight: 30 lb (13.5 kg.)  
Keyboard:  
Dimensions: 3.25" (8 cm) H x 15.25" (39 cm) W x 7.75" (20 cm) D  
Weight: 8 lb (3.6 kg.)

Specifications subject to change without notice or obligation.

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