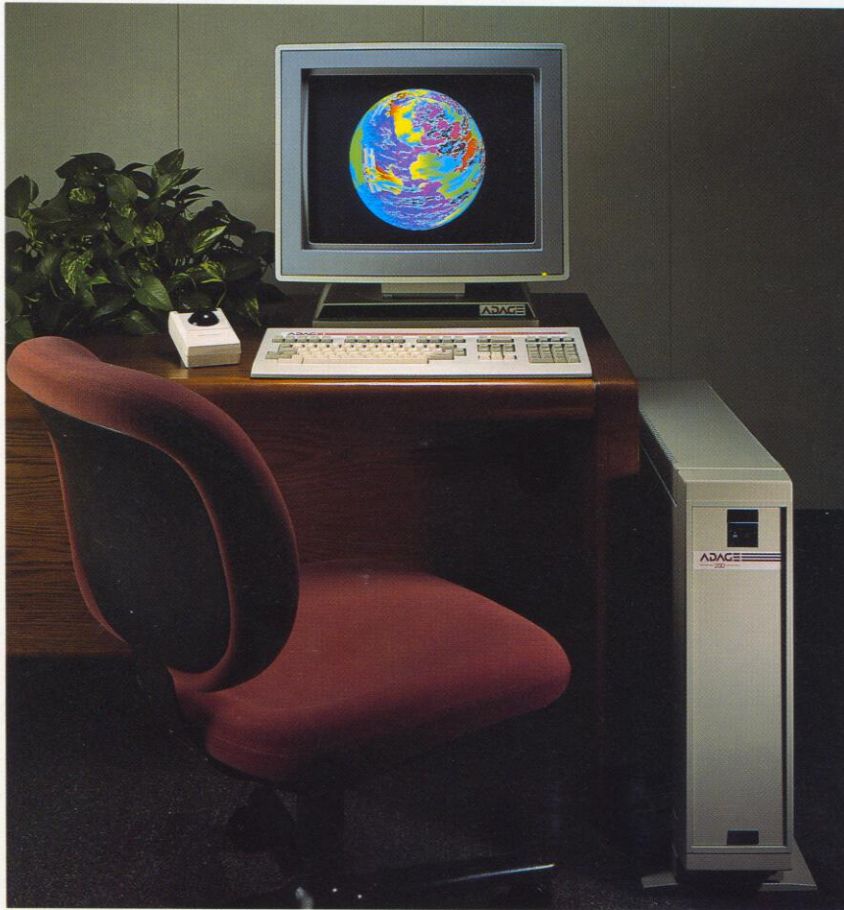


ADAGE 200

A New Generation Color Graphics Processor



The Adage 200 is a new generation of color graphics processor that utilizes the power of RISC technology to make high performance graphics available to those applications that need the speed and power of a host-coupled graphics display device.

POWERFUL

The Adage 200 uses VLSI custom chips and proprietary graphics logic circuits to achieve performance levels far beyond chip-based graphics processors. Add the EGOS graphics operating system and the Adage 200 is the perfect device for advanced graphics applications.

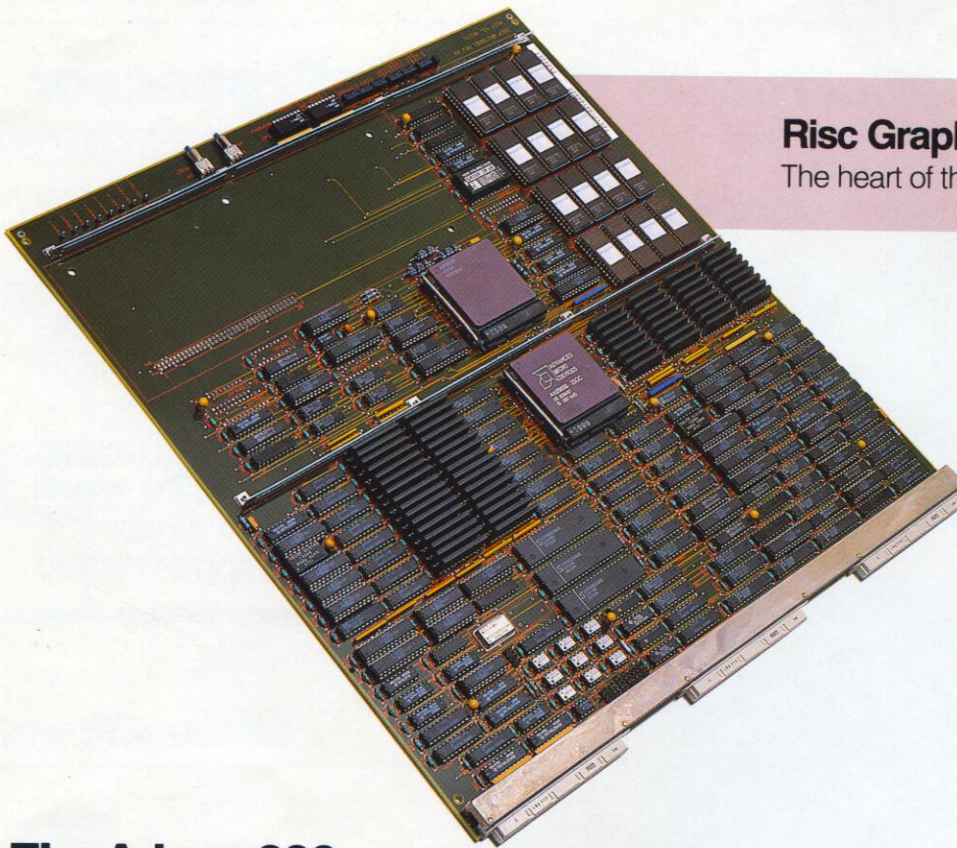
FLEXIBLE

The Adage 200 can be configured to meet your exact system requirements. Different groups of options are available to create as basic or as fully equipped a system as is needed. These options include memory, frame buffer size, an expansion chassis, and even a math coprocessor.

AFFORDABLE

The Adage 200 is aimed directly at those advanced color graphics applications where both performance and price are key requirements. OEMs and system integrators need a graphics processor that allows system specifications to be met and cost targets to be achieved.

ADAGE 



Risc Graphics Processor

The heart of the Adage 200

The Adage 200

Adage has been providing high performance graphics solutions to OEM's and end-users for over two decades.

The Adage 200 is the first of a new generation of graphics processors, utilizing RISC-based technology and VLSI chip design to put outstanding graphics performance in a compact and affordable package.

Designed to effectively relieve the host computer of the graphics processing workload, the Adage 200 can be connected to most popular mini-computers in use today through a high speed DMA interface.

The best solutions often are a combination of features, and the Adage 200 follows that philosophy exactly.

With the speed of custom designed logic, the power of a real time graphics language and the flexibility of multiple configurations, users can put together the right system for their needs. Both price and performance can be tailored to the exact requirements of the application.

The Adage 200 uses a very advanced RISC-based CPU, along with custom chip design, to achieve high levels of graphics speed at affordable cost levels. In addition, the Adage 200 can be equipped with an optional math coprocessor that can significantly improve performance for compute-intensive operations.

Virtual Windows has long been

a unique feature of Adage products, and the Adage 200 includes further improvements. Up to sixteen real-time color hardware windows can be defined, scrolled, manipulated and displayed simultaneously.

The Adage 200 uses the Extended Graphics Operating System (EGOS). Its powerful library includes a full set of 2D graphics & imaging commands in both screen and world coordinate modes.

The optional Adage Display List Language is a powerful implementation of the display list technique. DLL allows complete local peripheral control and strong gains in applications that require high levels of user interaction without burdening the host computer.

The Adage 200, brand new technology from the new Adage.

Hardware

GENERAL. The functional section of the Adage 200 is the two-board set made up of the Risc Graphics Processor (RGP) and the Video Board. Designed from the start for high reliability, they sit on a VME bus housed in a small footprint chassis.

CPU. The Adage 200 uses an Am29000™ as the processing engine. The Am29000 CPU is an advanced, RISC-based chip that is well-suited to a high performance graphics environment, with a price/performance ratio that makes it an outstanding value.

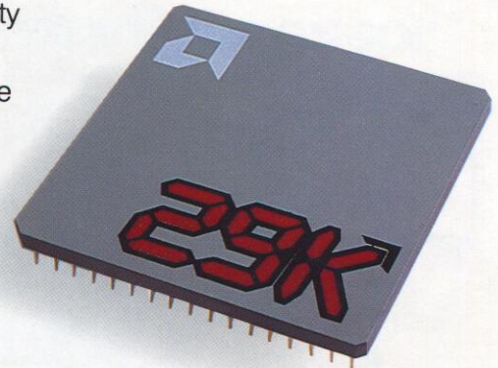
CUSTOM VLSI. The reason the Adage 200 is a good solution to many applications is the balance it has between price and performance. A key ingredient in the balance is the use of proprietary VLSI chip design to

improve speed and functionality while keeping costs down.

LOOK UP TABLE. The Adage 200 has a 12x24 Look Up Table for simultaneous display of up to 4,096 colors from a palette of 16.7 million possible colors.

LARGE BIT MAP. An optional Frame Buffer size of 2560x2048 allows large images to be manipulated without host interaction, important for those applications operating in a real-time environment.

WINDOWS. The use of Virtual Windows technology, with up to sixteen hardware windows displayable and controllable at one time, is an enormously powerful tool for local manipulation of both image data and menus.



FRAME BUFFER. A 12-bit Frame Buffer with 4 Overlay planes and a hardware cursor gives the Adage 200 tremendous power in building and controlling application oriented screen displays. The Overlay planes are controllable independently from the image display, while the hardware cursor is non-destructive to underlying data.

Software

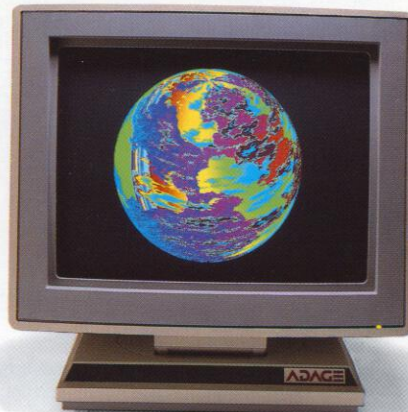
EGOS. The Adage 200 uses the powerful graphics operating system known as EGOS. A fully featured graphics display and control environment, it includes a wide range of 2D graphics primitives and functions, as well as imaging functions like block moves and run-length encoded writing. It is also structured with low overhead to make it ideal for applications with large amounts of operator interaction or where display requirements change rapidly and unpredictably.

COMPATIBLE. The software investment in older Lexidata or Adage equipment like the Lex 3400, Lex 3700 or Lex 90 is fully protected because the Adage 200 is upwardly compatible with applications developed for those products. It really does offer true "plug-and-run" upgrade capability.

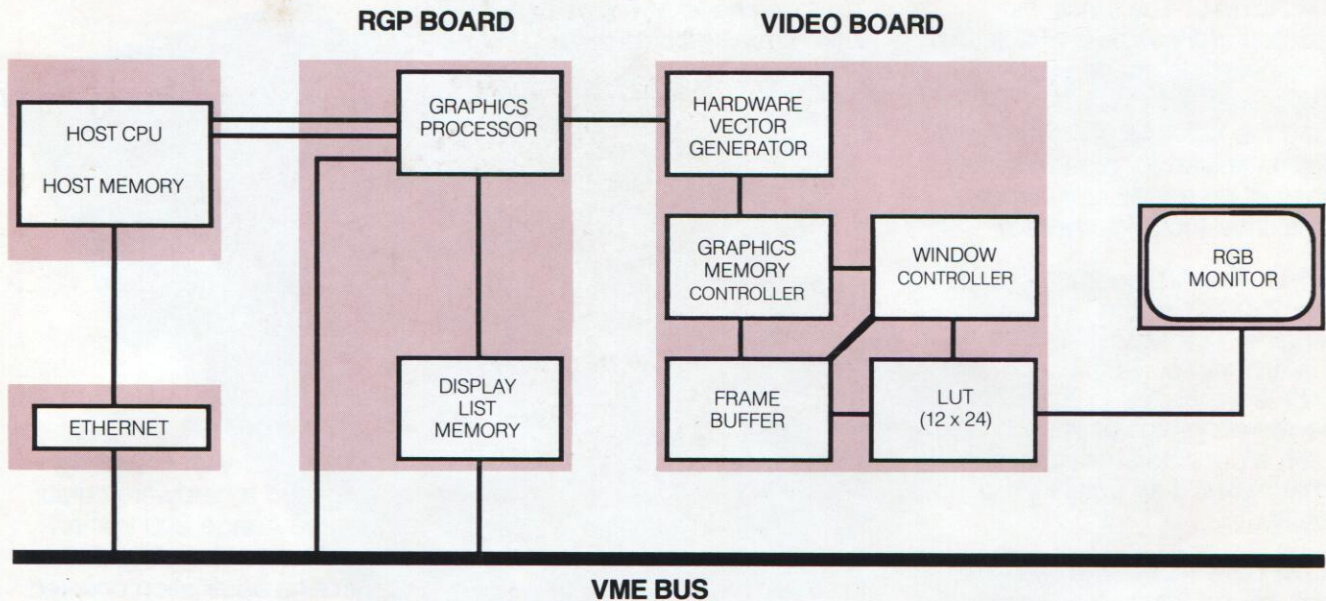
DISPLAY LIST. Adage has developed an enormously powerful implementation of the display list technique. Called DLL for Display List Language, it not only allows downloading of graphical segments, but allows non-graphical elements to be included and manipulated in the data base. Local picking and peripheral event triggers,

along with complete local editing capability, means that the majority of the application can be offloaded from the host. The host can do its job of data collection and analysis instead of graphics processing. DLL even minimizes memory requirements by maximum reduction of the segment overhead.

SUPPORT. Adage is committed to helping you make the most productive use of the 200. Knowledgeable and experienced software engineers are available to assist you in understanding and planning the best way to implement your application, and a variety of hardware service plans are offered to meet whatever your support requirements might be.



Architecture



Specifications

Processor

- Am29000™ 25 Mhz
- Am29027™ 25 Mhz (Option)

Viewable Resolution

- 1280 x 1024, 60 Hz

Frame Buffer

- 1280 x 1024 x 16
12 Image Planes, 4 Overlays
- 2560 x 2048 x 16 (Option)
12 Image Planes, 4 Overlays
- Hardware Cursor

Dimensions

- EIA Rackmount
5.25"H x 19"W x 18"D
- Tower Enclosure
24.4"H x 10"W x 28.5"D

Power Requirements

- 115/230 VAC, 50/60 Hz
- 800-1300 BTU/Hr depending on configuration

Peripherals

- Keyboard
- Joystick
- Mouse
- Trackball
- Data Tablet
- Touchscreen

Host Communication

- DMA Interface to most popular minicomputers
- Adapters to Industry Standard Bus Interfaces (IEEE-488, DR11-W, GPIO)
- RS-232 Serial Interface
- Ethernet TCP/IP

Host Software

- Fortran Library
- C Library

Diagnostics

- Prom Resident Self-test on power up

Options

- Display List Memory
- Expansion VME Chassis
- 2560 x 2048 Frame Buffer
- Math Coprocessor
- Tower Enclosure

Environment

- Operating Temperature 50°F to 104°F (10°C to 40°C)
- Storage Temperature -40°F to 167°F (-40°C to 75°C)
- Operating Relative Humidity 10% to 90% non-condensing
- Storage Relative Humidity 0% to 95% non-condensing
- Maximum Operating Altitude 10,000 Feet (2.4 km)
- Maximum Storage Altitude 30,000 Feet (9.1 km)

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ADAGE

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