# ADAGE 100
Crisp, clear, fast, full-color graphics!

The Adage 100 is a powerful, high-resolution graphics subsystem. Serving as the vital interface link between the user and the host computer, the Adage 100 provides fast, full-color graphics from large amounts of complex data.

POWERFUL. The Adage 100 offers productive, modular hardware features. *Virtual Windows* functionality provides real-time color window management, allowing up to eight viewports (text and graphics) to be defined, manipulated, and displayed simultaneously. The *extended bitmap* supports a visible 1280 x 1024 resolution window from a 2560 x 2048 x 8 frame buffer. *Adage Display List Language* (DLL) is used with the Display List Processor, and allows graphics interactive functions to be managed locally, offloading the host program as well as the host processor.
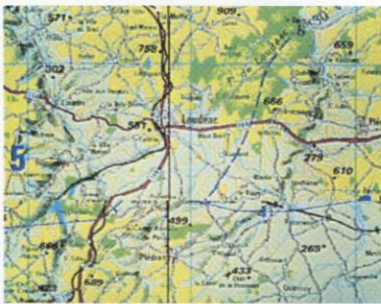
Defense mapping applications use Adage display products to satisfy demanding requirements. (Courtesy of SAGEM, France.)
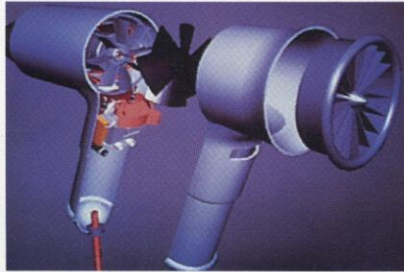

Adage's patented SOLIDVIEW® solids rendering display technology assists engineers in the conceptual design of mechanical products such as this hair dryer. (Courtesy of Structural Dynamics Research Corporation.)

LOWER PRICED. Succeeding Adage's popular LEX 90™, the Adage 100 is compatible with, *and priced lower than,* the LEX 90. Further, the Adage 100 offers faster windowing and new performance options.

FAST. The Adage 100 features the System Control Module (SCM) as its basic display controller. Based on a 56-bit word microprocessor, the SCM uses the latest bit-slice technology to achieve impressive vector writing speeds.

EASY TO PROGRAM. The Adage 100 software architecture is based upon Adage's Extended Graphics Operating System (EGOS). Resident in the firmware, EGOS provides all the graphics primitives as well as other fundamental graphics tools. The user works with an upwardly-compatible command set that protects previous software investments, and enjoys room for growth as application demands become more complex.
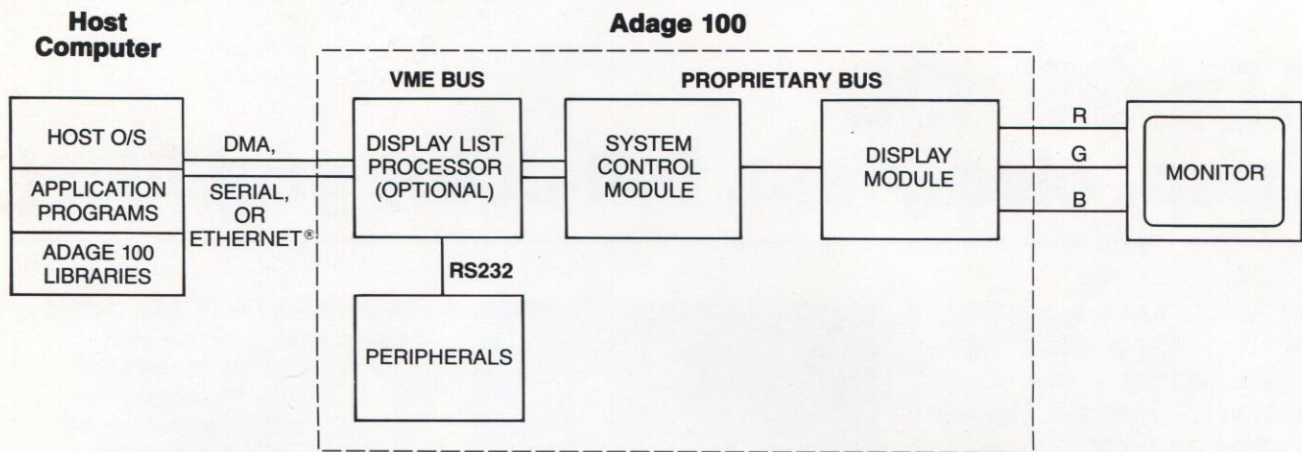
FIRMWARE OPTIONS. Adage supplies a range of powerful application-specific firmware options. *SOLIDVIEW®* solid modeling display technology works with the ADAGE 100 display processor and a host computer to perform simultaneously the necessary processes involved in producing a 3-D shaded image. The *Display List Processor* uses Adage's sophisticated Display List Language (DLL) and allows graphics and interactive functions to be managed locally. Parallel processing procedures are maximized. *2-D World Graphics* (2D WG) handles two-dimensional transformations and clipping locally. Host library commands are callable through Fortran or C for all Adage 100 firmware options.
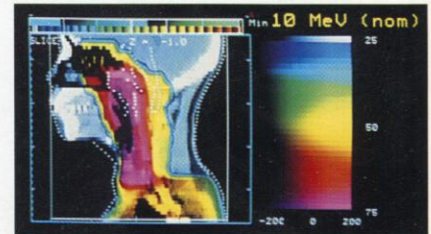
Digitally-reconstructed medical images on an Adage display processor are used to plan radiation therapy for cancer patients. (Courtesy of Massachusetts General Hospital, Department of Radiation Medicine.)

MINICOMPUTER INTERFACES. The Adage 100 can be connected to many popular host minicomputers — including Data General, DEC™, Gould, MASSCOMP, and Perkin Elmer — by DMA interface. The new optional VME interface allows the Adage 100 to connect to minicomputers with a VME bus, such as Sun Microsystems.

ADAGE

Host Computer

Adage 100

```
VME BUS                  PROPRIETARY BUS
```

| HOST O/S | DMA, | DISPLAY LIST PROCESSOR (OPTIONAL) | SYSTEM CONTROL MODULE | DISPLAY MODULE | R G B | MONITOR |

APPLICATION PROGRAMS — SERIAL, OR ETHERNET®

ADAGE 100 LIBRARIES

RS232

PERIPHERALS

ADAGE 100 Technical Specifications

Functional

CPU:
- AMD 2900 Series bit-slice processor
- 8K x 56 bits of control store

Diagnostics:
- Prom resident power-up self-test

Character Memory:
- 8 Kbytes ROM
- Up to 32 Kbytes RAM

Display Memory:
- 2560 x 2048 x 8 bit map with 1280 x 1024 viewable non-interlaced

Resolutions:
- 1280 x 1024, 30 Hz interlaced
- 1280 x 1024, 60 Hz non-interlaced
- 640 x 512, 60 Hz non-interlaced

Video Output:
- RGB composite video
- Sync present on all channels

VME Bus Slots:
- 3 available

Host Communication:
- Adage proprietary DMA interface
- Connection to many mini-computers: DEC Unibus, DEC 18-Bit QBus, DEC 22-Bit QBus, MASSCOMP (via Multibus), Analogic AP500, Data General MV Series, Perkin Elmer, IEEE-488, DR11-W, GPIO
- RS232C serial interface software-selectable up to 19.2 Kbaud
- Ethernet with TCP/IP protocol

Peripherals
- Data Tablet
- Joystick
- Mouse
- Trackball
- Touch Screen Driver

Chassis Dimensions
(EIA Rack-Mountable)

Height:
- 5¼" (133 mm)

Width:
- 19" (482 mm)

Depth:
- 26" (660 mm)

Weight:
- 75 lbs. max. (34.02 kg)

Hardware Options
- Virtual Windows (8 individual windows)
- Extended Frame Buffer (2560 x 2048)
- Display List Processor
  - MC68000 16/32-bit (8MHz)
  - 4 RS232 serial ports (up to 19.2 Kbaud)
  - Up to 5 Mbytes memory
- Peripheral Controller
  - Four RS232C serial ports (software-selectable up to 19.2 Kbaud)

Power

Voltage:
- Switch-selectable
  - 90-132V rms - U.S. and Japan
  - 187-264V rms - U.K. and Europe

Consumption:
- 250-400W

Frequency:
- 47-63 Hz

Environmental*

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 Altitude:
- 10,000 ft. (2.4 km) operating
- 30,000 ft. (9.1 km) non-operating

Firmware Options
- EGOS (Extended Graphics Operating System) — (Standard)
- SOLIDVIEW
- WIGGLEVIEW
- DLL
- 2D WG

Host Software
- Fortran and C callable libraries

*Ruggedized specifications available. Contact sales representative.

ADAGE