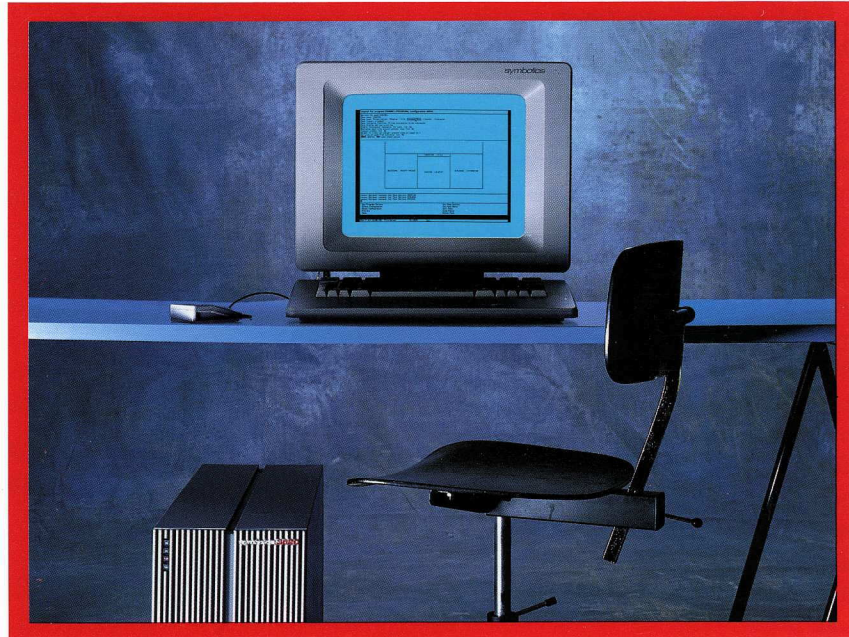


symbolics™



SYMBOLICS 3620™ SYSTEM

The Symbolics 3620 system is the newest low-end member to the powerful Symbolics 3600™ family of symbolic processors. Ideal for smaller development projects, the 3620 system is also a powerful machine on which companies can deliver sophisticated applications.

Based on CMOS/VLSI implementation of Symbolics' proprietary 36-bit tagged architecture using gate-array technology, the 3620 system offers complete compatibility with Symbolics' other symbolic processing systems.

A Full-Function Entry-Level Development System

The Symbolics 3620 system uses CMOS/VLSI technology to pack the performance, power, and functionality of the Genera™ software environment into a small box.

With a full implementation of the Genera environment, program developers have Symbolics Common Lisp™, Flavors object-oriented programming, complete window management, built-in networking software, graphics, multitasking in a single address space, multilanguage programming, editors, debuggers, and an integral electronic mail system to develop complex applications in a minimum amount of time.

The 3620 system has five expansion slots for additional memory, an FPA for numerically-intensive applications, mass storage, printers, or additional RS232C I/O ports.

A Powerful Applications Delivery System

The Genera software environment, renowned for its productivity in program development, is also an intuitive foundation for delivering applications. With the announcement of the 3620 system, companies can now choose between it and the smaller Symbolics 3610AE™ system for delivering low-end applications.

Complete compatibility among the Symbolics 3600 family means that applications can be developed on our larger systems and then delivered cost-effectively on another Symbolics system without sacrificing performance, quality, power, or functionality.

The 3620 processor is available in a compact floor stand that fits underneath or alongside a desk. An optional rack-mountable version is available for multiunit or imbedded configurations, bringing symbolic processing power to a wide range of real-world situations.

SYSTEM CONFIGURATION

The 3620 system is available as a base unit, which includes the processor, I/O controller, backplane, cabinet, Ethernet, and a disk. System console (with keyboard and mouse) and memory are added to suit the user's needs. The 3620 system is mounted in a floor-standing pedestal configuration or, optionally, with RETMA-compatible rack mounting.

Fast and easy upgrades and system maintenance are possible with snap-out components. The 3620 system comprises:

- A compact system cabinet that measures 17 1/2" H x 8 1/2" W x 25" D (44.5 cm H x 21.6 cm W x 63.5 cm D) and contains the processor, I/O controllers, memory, disk, and options.
- Genera software that can address up to 4 Mwords (16 Mbytes) of memory.
- One 190 Mbyte disk (unformatted).
- Built-in Ethernet interface.
- Five small L-bus expansion slots.

SYMBOLICS HARDWARE ARCHITECTURE

Like the other members of the Symbolics 3600 family, the 3620 system is based on a proprietary 36-bit tagged architecture with runtime data typing, dynamic storage allocation, dynamic linking, multitasking in a single address space, and object-oriented programming. In total, these features create a high-performance environment with productivity gains for programmers as well as applications users.

The 3620 system's single-board processor is possible through CMOS/VLSI implementation of the Symbolics 3600 architecture using gate-array technology. This implementation opens the door to high performance and custom VLSI implementation at a lower cost, delivered in a smaller package.

Other features of Symbolics' hardware architecture:

- The modular I/O architecture makes the system flexible, inexpensive, and easy to expand.
- The systems' 36-bit, stack-oriented tagged memory architecture is designed specifically to support the Genera software environment, which includes Symbolics Common Lisp.
- Hardware-assisted parallel execution of runtime data-type checking, garbage collection, and instruction prefetch, give 3620 system users fast response, increased data integrity, and overall high performance.

- A demand-paged virtual memory capability gives the 3620 system the ability to handle large, complex problems with superior performance and response.

The Genera Software Environment

Symbolics' Genera software environment includes Symbolics Common Lisp, a superset of the industry-standard Common Lisp. With extensions such as Flavors object-oriented programming, window management, networking, graphics, multitasking in a single address space, multilanguage programming, editors, debuggers, and electronic mail, Symbolics Common Lisp provides all of the tools necessary for a productive and intuitive software environment.

The Genera environment encourages rapid prototyping, incremental software modification, easy maintenance, and overall project synchronization. Environment features include:

- A sophisticated operating system environment that is written entirely in Lisp.
- Genera software that is designed to provide fast interactive response to system developers and applications users.
- A highly flexible user interface, with a variety of window configurations and menu styles, that is under programmer control.
- Operating system and utilities that are documented and can be modified online.

- A complete set of the Symbolics documentation is available in hard-copy or online through the award-winning Document Examiner™.
- Concurrent execution of application processes in multiple languages is supported.
- Standard program-development utilities are window oriented, support fill-in-the-blank command completion, and can be keyboard and mouse activated.

Genera High-Level Language Support

Genera supports a multilanguage environment wherein the full suite of software tools and development utilities are available to all supported languages. Routines and programs written in various languages can be combined into large application systems and can call each other.

The 3620 system supports Symbolics Common Lisp, Zetalisp®, FORTRAN-77, Pascal, Ada®, and Prolog. Applications written in any of Genera's supported languages will run—without modification—and take immediate advantage of the symbolic processing environment when ported to the 3620 system.

Symbolics Network Environment

Symbolics has a strong line of network products to complement the 3620 system. Based on the Generic Network Interface, Symbolics' networking products let all members of the 3600 family share resources such as file systems, mass storage devices, printers, and communications gateways. Other features include:

- Uniform system commands, regardless of the protocol used, makes the Generic Network System easy to use.
- Chaosnet, standard on every Symbolics system, is used for communication among several Symbolics hosts.
- Built-in Ethernet support is available for local-area networks.
- Optional protocols include SNA, DECnet™, and TCP/IP for communication to other vendors' systems.
- Multiple protocols are supported simultaneously and selected automatically over Ethernet cable or through serial I/O ports for a transparent user interface.

SYSTEM OPTIONS

- Up to 4 Mwords of memory (16 Mbytes) in increments of 1 Mword (4 Mbytes).
- Double-precision Floating Point Accelerator.
- Additional 190 Mbyte disk (unformatted) or 1/4" cartridge tape drive.
- Symbolics DMP1 Dot-Matrix Printer.
- Symbolics LGP2 Laser Graphics Printer.
- Rack mounting.
- Up to two RS232C ports on the processor box.
- High-resolution monochrome console (with keyboard and mouse). Console also includes one RS232C serial I/O port.

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PROCESSOR OPERATING ENVIRONMENT

Weight:	60 lbs. typical (27.2 kg) 90 lbs. maximum (40.8 kg)
Voltage:	115 V ($\pm 10\%$) at 3 amps typical (9.4 amps maximum) 230 V ($\pm 10\%$) at 4.7 amps maximum International power configurations also available.
Frequency:	47-63 Hz
Power:	400 Watts typical (1365 BTU/hr) 850 Watts maximum (2901 BTU/hr)
Temperature:	50-90 degrees F (10-32 degrees C)
Relative Humidity:	20-80%
Power Receptacle:	NEMA 120V/15A (standard office power)

For more information on the Symbolics 3620 system or other symbolic processing products, contact:

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555 Virginia Road
Concord, MA 01742
617-259-3600

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