# XEROX

# 1132
## Scientific Information Processor

An era of unprecedented speed and responsiveness for exploratory programming is now at hand with advanced Interlisp-D and the Smalltalk-80 ™ System on the Xerox 1132.

The Xerox 1132 provides the most powerful interface between a complex system and a human user. At the top of the 1100 Series product line, it provides extraordinary power for large-scale software development and applications. A single 1132, configured into a network of 1100s and 1108s, provides the horsepower for computation-intensive tasks.

Internally, the 1132 derives its speed by fully exploiting ECL technology. Architecturally, the 1132 is software compatible with other members of the 1100 Series. The hardware is optimized for efficient execution of byte-encoded instruction sets such as those used for Interlisp-D and the Smalltalk 80 ™ System. The 1132 supports a large virtual memory with a hardware map to support efficient address translation. The raster-scan bitmap display is refreshed directly from main memory. The high-performance local disc has a capacity of 80 Mbytes.

The 1132's main distinction is high speed, both in instruction execution rate and I/O bandwidth. Its memory bandwidth of over 500 Mbytes per second makes it capable of simultaneously supporting rapid instruction execution and a large number of high bandwidth devices.

The 1132 processor consists of three independent sections operating in parallel. Each section is pipelined for high throughput. The instruction fetch unit accesses instructions at the rate of two bytes per machine cycle and generates control information for the execution unit. The microprogrammed execution unit is responsible for instruction set emulation and control of I/O devices. It executes one microinstruction in less than 70 nanoseconds. An 8 Kbyte cache is used to accelerate processor references for instructions and data. The cache has an access time of two cycles and a bandwidth of one word per cycle.

## Advanced Interlisp-D Programming Environment

The Xerox 1132 amplifies the power of Interlisp-D as *the* state-of-the-art vehicle for exploratory programming.

**Software highlights:**

- Interactive graphics
- Display editor and inspector
- Debugging tools
- Text editing
- Direct microcode support
- Deep binding
- CDR encoded 32-bit CONS cell
- Transaction garbage collection
- Raster scan graphics
- Bitmap color display
- Communications software

## Smalltalk-80 Programming Environment

The Xerox 1132 Smalltalk-80 completely implements the Smalltalk-80 environment and takes full advantage of the Xerox 1132 outstanding hardware capabilities.

**Software highlights:**

- Object-oriented language
- Interactive environment
- Browsing capability
- Text editing
- Graphics editing
- Debugger
- High-level process scheduler

## Training

Xerox Special Information Systems offers user training at customer sites and at various Xerox locations.

## Processor

2 Mbytes main memory
Expandable in 2 Mbyte increments to 8 Mbytes
8-32 Mbyte virtual address space
Under 70 ns microinstruction cycle time
530 Mbytes/sec I/O bandwidth

## Local Storage

80 Mbyte removable disc

## Communications

Ethernet controller
Parallel port

## Display

Large format CRT display (17" diagonal)
High resolution bitmap (1024 x 808 pixels)
Usable viewing area: 12.8" wide by 10" high
Refresh rate: 38.5 frames per second, interlaced
Distance from processor: up to 200 feet
Color display interface (optional)

## Keyboard

64 keys, both downstroke and upstroke sensed

## Pointing Device

Mouse

## Size

### Processor
21" wide x 44" high x 31" deep

### Display Unit
17" wide x 19" high x 15" deep

### Keyboard
17" wide x 3.25" high x 7" deep

### Pointing Device (Mouse)
2" wide x 2.5" high x 3.25" deep

## Electrical Requirements

### Processor/Display

| | |
|---|---|
| Voltage: | 220 VAC |
| Frequency: | 60 Hz |
| Current: | 22 Amps |
| Receptacle: | 30 Amp, 3 Prong |

## Operating Environment

| | |
|---|---|
| Temperature: | 50 - 80°F |
| Relative Humidity: | 15 - 70% |
| Heat Dissipation: | 15,000 BTU/hr |

## Service

Xerox Special Information Systems will provide service support for the 1132.

# XEROX

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