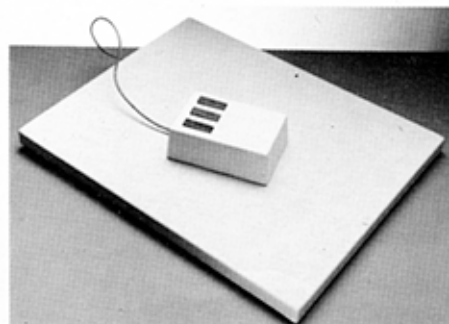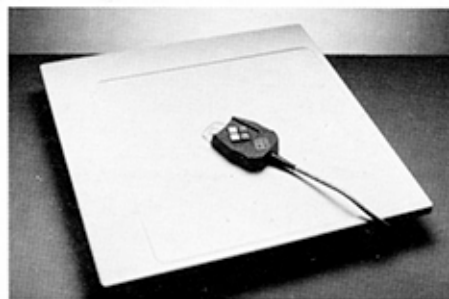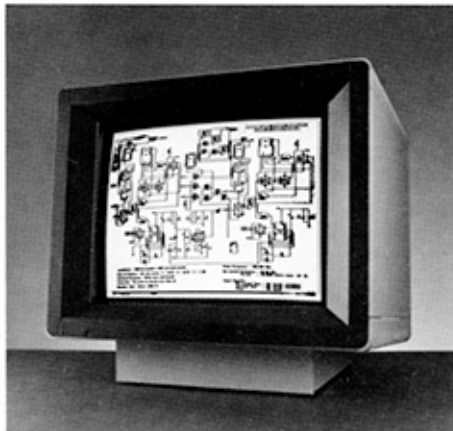**Three Rivers Computer**

PERQ

PERQ 2
Graphics Workstation
Specification

System

Integrated system comprising

□ Base unit containing processor, memory, I/O controller and Winchester-technology fixed disk.

□ High performance graphics display.

□ Graphics tablet with pointing device.

□ Alphanumeric keyboard.

Designed as self-contained workstation to enhance productivity of professional personnel.

Processor

□ Microprogrammed to optimize speed and memory usage for specific higher-order languages such as Pascal, 'C', etc.

□ 4K or 16K words of user Writable Control Store.

□ Bit-sliced 16 bit CPU with 170ns microcycle time.

□ Hardware RasterOp bit-map manipulation, enabling bit-addressed raster-data to be moved at up to 32 Mbit/sec.

□ 20 bit real address registers.

□ Hardware diagnostics implemented via microcode with results displayed automatically.

Memory

□ 512 Kbytes, 1 Mbyte or 2 Mbytes of MOS semiconductor RAM with parity checking.

□ Memory cycles 64 bits every 680ns.

□ Approximately 200 Mbits/sec aggregate memory bandwidth, shared equally between display and processor.

□ Integrated memory/display controller.

□ Screen bit-mapped directly from any area of memory.

Input/Output

□ I/O controller (for high speed devices) multiplexes up to 6 simultaneous DMA channels at up to 10 Mbits/sec each; two DMA channels for user options.

□ Dedicated microprocessor for low speed device control.

□ Two RS232C interfaces: full duplex, synchronous/asynchronous serial data ports; speeds up to 9600 baud.

□ GPIB interface: IEEE 488-1975 implementation of the General Purpose Instrumentation Bus.

□ Speech output hardware.

□ Ethernet™ Local Area Network interface (optional).

□ PLP-10 Laser Printer interface (optional).

PERQ is a trademark of Three Rivers Computer Corporation.
Ethernet™ is a trademark of Xerox Corporation.

PERQ 2 Graphics Workstation Specification

Display
☐ Free-standing, raster-scanned, bit-mapped CRT.
☐ 60Hz non-interlaced refresh rate.
☐ P4 white tube phosphor.
☐ 100 dots/inch resolution.
☐ Hardware cursor user-definable up to 56 x 64 pixels.
☐ Direct bit-mapping from main memory.
☐ Maximum distance from base unit 8'.

Portrait or landscape orientation
Portrait
☐ 768 x 1024 pixels.
☐ Dimensions: Screen diagonal 13.75"; height 10.8"; width 8.25".
Landscape
☐ 1280 x 1024 pixels.
☐ Dimensions: Screen diagonal 19"; height 11"; width 15".

Keyboard
☐ Free-standing.
☐ Solid state.
☐ 84 keys (including numeric keypad and four user-definable function keys).
☐ ASCII character code.
☐ Maximum distance from display 8'.

Graphics tablet
Variants:
Tablet with mouse
☐ Completely flat surface.
☐ Active area 8.25" x 10.75".
☐ Electromagnetic operation.
☐ Three button mouse.
☐ Maximum distance from display 8'.

Bitpad with puck
☐ GPIB interface.
☐ Active area 11" x 11".
☐ Magnetostrictive operation.
☐ 0.005" resolution.
☐ Four button puck.
☐ Maximum distance from base unit 8'.

Fixed disk unit
☐ 8" Winchester-technology rigid disk.
☐ Up to 35.6 Mbytes formatted capacity.
☐ 3 platters, 5 surfaces, 5 heads.
☐ Rotational speed 3600 rpm.
☐ Average access time: 42 ms.
☐ Transfer rate: 920 Kbytes/sec.
☐ Average latency: 8.33 ms.

Floppy disk drive (optional)
☐ 8" double-sided, double-density, soft-sectored.
☐ 77 tracks/side, 26 sectors/track.
☐ 1 Mbyte formatted capacity.
☐ Rotational speed: 360 rpm.
☐ Transfer rate: 62.5 Kbytes/sec.
☐ Head load time: 50 ms.
☐ Settling time: 15 ms.
☐ Latency: 83.3 ms.
☐ Track to track seek: 3 ms.
☐ Average access time: 96 ms.

General information
Power requirements
☐ Source: 115V.
☐ Line frequency: 60 Hz.

Environment
☐ Operating temperature: 15° to 32°C.
☐ Relative humidity: 20% to 80%.

Cabling
All necessary cables for the minimum configuration are supplied.

Physical dimensions

		Height inches	Width inches	Depth inches
Base unit		26½	14⅜	26
Display	portrait	17¾	17¾	12¾
	landscape	18¼	20	18¼
Keyboard		1¾	19	8½
Graphics tablet	tablet	½	8¼	10¾
	bit pad	9/16	15½	15½

For further information contact