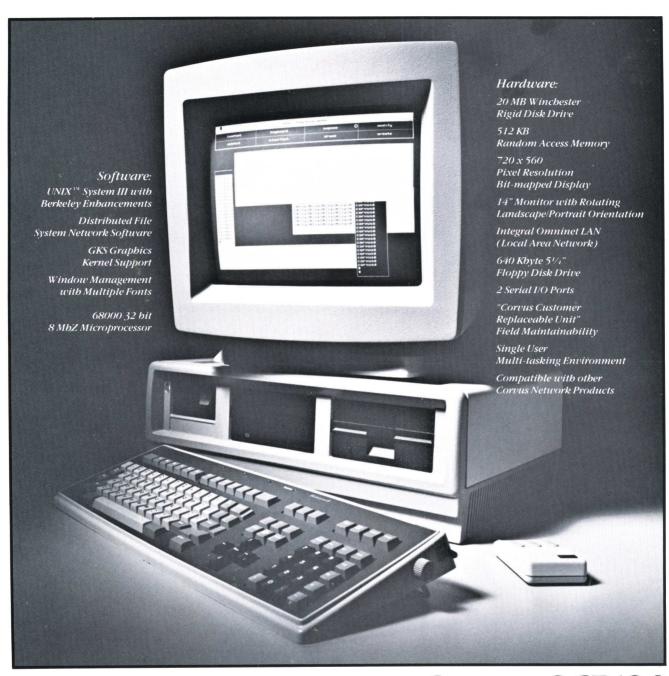
The Corvus SCP/20 Microcomputer System





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Overview

The Corvus SCP/20 is a compact 68000 microprocessor based desktop processing unit. Its unique blend of features offers maximum flexibility and performance in the UNIX® Operating System environment while maintaining the price point of high-end personal computers.

Hardware

The Corvus SCP/20 features an 8 MHz 32-bit 68000 microprocessor with 512 KB Random Access Memory, 20 Megabyte Winchester disk storage, 51/4" floppy disk drive, high resolution video display, and integral Omninet™ Local Area Network.

Display

Integral in the Corvus SCP/20 display is a high resolution 720 X 560 resolution bit-mapped graphics display. This allows the utilization of the latest generation office automation software with its heavy emphasis on graphical symbology resulting in a closely coupled human-machine interface. The display also allows the Corvus SCP/20 to make an ideal personal CAD/CAM/CAE desktop workstation.

A separate 64K of video memory (separate from the main memory) is included to drive the display. This display memory is served by a separate clock thus allowing noncontending video access separate from memory access. The display monitor is a 15" 35 MHz black and white tube with a P134 phosphor. The phosphor has a long persistence which gives a flicker free image.

Unique to the SCP/20 is the ability to rotate the display into either the portrait orientation (vertical) or the landscape (horizontal) orientation. An internal position sensing switch determines orientation and automatically chooses correct font upon power-up. The monitor base is ergonomically designed to allow degrees of movement in all directions.

Networking

Omninet, the leading technology in retail computer communications, has now been applied to the UNIX microcomputer community. At the heart of the Corvus SCP/20 communications capability is the Omninet Local Area Network (LAN) which has the largest installed base in the field (over 100,000 nodes). Multiple Corvus SCP/20s can be networked together simply by providing low-cost twisted pair interconnect cable. The workstation thus becomes a node in a powerful multiuser network. If one station goes down, all the other nodes on the network can distribute the workload. The network is fully compatible with other Corvus Network based products such as The BANK.

Omninet is a one megabit per second LAN utilizing CSMA/CA (Carrier Sensing Multiple Access/Collision Avoidance). The physical medium is organized as a bus topology utilizing twisted pair cable. Up to 64 nodes can be attached to a network without requiring bridges or gateways. Maximum cable length is 300 meters (1220 meters with active drivers).

A Distributed File System has been placed on top of the network. This makes the network appear as a 'virtual

directory' to all of the nodes' file systems. The result is communication between any network nodes that is virtually transparent to both the users and any application software. This combination of Omninet and the Corvus Connection software has achieved a 'minicomputer on a string' type of performance.

Maintainability

The Corvus SCP/20 was designed from the start with field service in mind. Through the use of onboard diagnostics and the exclusive Corvus Customer Replaceable Unit (CCRU), the design goal of a maximum service time of 30 minutes with non-technical personnel has been met. The result is a unit that breaks into six component parts with no disassembly requiring more than a simple screwdriver.

All of the electronics are mounted in a metal enclosed Central Electronics Package (CEP). Upon failure, the CEP is removed simply by pulling the package out and removing four cable assemblies. The power switch is mounted on the power supply which also removes as a package with a simple pull and removal of two cable assemblies. The rigid disk and the floppy disk each are replaced as a single unit and a cable.

For large installations the CCRU system makes the stocking of spares as simple as determining the correct number of the six different units for a site (as determined by the Customer Site Installation Guide). Service is simply a matter of running the diagnostics, having the operator replace the suspect CCRU (no required technician), and shipping the faulty CCRU back to the service depot.

Software

The Corvus SCP/20 family comes standard with UNIX System III. UNIX is a powerful multi-user, multi-tasking operating system, ideally suited to the super microcomputer environment. UNIX boasts a rich set of system utilities and language processors for both text and data processing.

An important feature for an OEM is the large applications library that currently exists under UNIX, thus making the Corvus SCP/20 Worksystem the single required workstation necessary in a complete user environment.

In the landscape orientation, the SCP/20 offers a complete multiwindowing package. This capability coupled with the optional Corvus Mouse gives the user a means of defining multiple tasks and viewing the operation of these tasks. While many microcomputers today offer a visual form of windows, only a computer such as the Corvus SCP/20 with its multi-tasking UNIX also allows these windows to operate independently and concurrently.

The user can select up to six windows that can individually contain unique size and position, unique processes and tasks, and a unique font. Windowing control can be maintained through user program control, keyboard utility programs, or by the Corvus Mouse.

Also supplied is a Font Editor. This program allows the graphic manipulation of the supplied fonts as well as the creation of new and unique fonts. Fonts are supplied standard with the Corvus SCP/20 ranging from small bitmapped text up to 20 point italicized text.

Corvus SCP/20 Specifications Hardware Summary

Architecture:	Keybo	Keyboard:					
 □ 32 Bit processor utilizing the MC-68000 microprocessor □ 8 MHz operation □ 16 Separate context memory manager allows true multi-tasking □ Integral clock/calendar with lithium battery backup □ 2 Programmable interval timers □ 2 50-Pin internal I/O slots 	Fi	□ 8048 microprocessor controlled keyboard □ Full ASCII 91 key 'Selectric' style keyboard □ 15-key numeric pad and cursor control keys □ 10 function keys with 20 programmable functions □ 'N' key rollover □ Sculpted keycaps with auto repeat on all keys □ Keyboard attached with 3 foot (1 meter coiled cord)					
Main Memory: □ 512 Kbyte dynamic RAM □ Parity error detection □ Uses 64K RAM chips for increased reliability	□ 2 □ P: □ R						
 □ Onboard hardware refresh Display: □ Raster scan bit-mapped graphic □ High Resolution 720 X 560 pixels □ 64 Kbytes Dual Ported display memory □ Unique dual mode (portrait or landscape) display 	□ 72 la □ 68 □ Ir	☐ 72 Msec Avg. Access (135 Max); 8.33 Msec avg. latency ☐ 687.5 Kbytes/sec transfer rate					
 □ 120 X 56 characters in landscape orientation □ 90 X 72 characters in portrait orientation □ Position sensitive switch automatically determines mode 	□ 51 □ D	5¹/4″ Floppy with 655 Kbytes formatted capacity Double sided, double density, soft sector Buffered Sector reads and writes					
 □ 60 Hz non-interlaced refresh rate □ (50 Hz non-interlace refresh rate European version) □ 35 MHz video bit rate; 35 KHz scan line frequency □ Non-overlapping (no contention) video memory access □ 15 Inch white phosphor □ +17° to -13° tilt; 90° swivel 	□ Ir □ 1 □ Ba □ 12 □ 30	 □ Industry standard Omninet LAN □ 1 Megabit/second transfer rate □ Baseband CSMA protocol with collision avoidance □ 1220 meters (4000 ft) with active junction box □ 300 meters (1000 ft) stand-alone 					
Environment Operation:	Dimen	sions:					
☐ 100/120 or 220/240 volt (selectable) ☐ 50/60 Hz AC, 200 watts		Hei	ght	Width	Depth		Weight
☐ Temperature 50-120°F (10-50°C) ☐ Humidity 10-80% ☐ Abdit to 10000 for (1200 2000 vectors)	Desk Un	nit 7	.8 .7	20.5 52.1	15.0 38.1	inches cm	(47.8 lbs) (21.7 Kgs)
 ☐ Altitude −1000-10000 ft. (−300-3000 meters) ☐ Meets FCC Class A requirements ☐ UL and CSA listed 	Display	17 44		14.0 33.6	13.5 34.3	inches cm	(39.8 lbs) (18.1 Kgs)
☐ Designed to meet IEC435 and VDE871 requirements	Keyboar		.0	21.0 53.3	7.0 17.8	inches cm	(6.5 lbs) (2.9 Kgs)
Software S	Summary	Y					
UNIX: UNIX System III Compatible with all Unisoft ported software Languages include 'C', Basic, and Assembler Hierarchical File System Multi-tasking, Multi-processing environment Word processing and typesetting capability Includes SCCS, 'C' Shell, UUCP, vi, Termcap Optional Fortran, Cobol, and Pascal		 □ Transparent to most applications □ High level window management routines for application programs □ User programmable (dynamic) □ Each window can utilize a different font 					
Network Software: ☐ UNIX to UNIX networking ☐ Resides integral inside kernel ☐ Directories are available across machines ☐ Execute files and commands across network ☐ Appears to application program as unchanged kerne	The BAI	NK is a trader	nark of	Corvus Systems	s, Inc.	e, San Jos	se, Ca 95124

□ Provides a distributed file system capability across network (408) 559-7000, Telex 278976