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CUMULATIVE INDEX

ISO PROSPECT REPORT & LABEL ORDER FORM

REPLY FORM

ISO CONFERENCE JUNE 3-5, 1984

by ISO Marketing

Wang's Second Annual ISO Conference will be held from Sunday, June 3, through Tuesday, June 5, 1984, at the Boston Marriott Hotel / Copley Place in Boston, Massachusetts. This conference is sponsored by the ISO Marketing and the Software Vendor Marketing Groups. Conference programs are designed for both owner/managers and technical personnel, and ISOs are encouraged to send as many representatives as possible. There will be general sessions for all ISOs and specialized break-out sessions to meet the specific needs of systems houses, dealers, and software vendors. Attending ISOs will be encouraged to participate in the interactive break-out sessions, and product sessions will have equipment available for hands-on participation.

ISOs will be receiving program and registration information in the mail in the next couple of weeks. The local Wang account representatives also have information on the conference. The participation of Wang Independent Sales Organization is crucial to the success of the conference, and all ISOs are encouraged to attend.

CUSTOMER RESOURCE CATALOG NOW AVAILABLE

by ISO Marketing

The third edition of Wang's Customer Resource Catalog (700-7647B), dated Winter/Spring 1984, is now available. This catalog lists available documentation, both manuals and data sheets, for all Wang product lines.

The Customer Resource Catalog will be automatically enclosed with domestic CPU shipments. To order additional copies of the catalog, contact the Supplies Division at 800-225-0234, or send a written request to Wang Supplies Division Order Entry, Mail Stop 1711, 800 Chelmsford Street, Lowell, MA 01851.

NEW VS 85 CONFIGURATIONS AND UPGRADE ANNOUNCED by VS Product Marketing

DESCRIPTION

VS Product Marketing is pleased to announce new configuration capabilities for the VS 85 with cache. These new configurations include expansion of workstation support, background tasks, and concurrent user tasks. In addition, there is now an upgrade from a VS 85 to a VS 100 for users whose systems require further expansion.

Configurations

The maximum configuration figures for a VS 85 with cache have been changed. The following chart illustrates the change that has taken place in configuration support, comparing previous maximum configurations for a VS 85 with cache to the new maximum configurations.

VS 85 WITH CACHE

	Old Maximum	New Maximum
Concurrent User Tasks	60	88
Background Tasks	12	24
Concurrent Serial WS	48	64
Concurrent WS and Printers	48	64

All VS 85 users currently configured with cache can take immediate advantage of these new configuration capabilities. A VS 85 configured with disks and the maximum number of workstations has one available IOP slot for a second disk IOP, a TC IOP, or a tape IOP. For those systems without cache, the following maximum configurations remain the same.

VS 85 WITHOUT CACHE

	Maximum Configuration
Concurrent User Tasks	44
Background Tasks	12
Concurrent Serial WS	32
Concurrent WS and Printers	32

Upgrade

A VS 100 upgrade is available to VS 85 users with cache who are experiencing system growth and require support for more peripheral devices or more memory. The upgrade consists of swapping the system cabinet, power assembly and motherboard, and adding an I/O extension. If the VS 85 is a four megabyte system, the two 2MB memory boards will be exchanged for four 1MB memory boards. No change is required for CPU, main memory, IOPs, peripherals, operating system software, or applications software.

(continued)

NEW VS 85 CONFIGURATIONS AND UPGRADE ANNOUNCED (continued)

MARKETING STRATEGY

With the increase in the number of supported workstations and user tasks, the VS 85 can now provide the system solution to a wider variety of customers. Medium to large departments who foresee considerable growth in the number of users are now assured that the VS 85 will grow as their needs grow. The system can now support up to 64 concurrent workstations and still provide the performance of a VS 100. Not only has the maximum number of users expanded, but the number of background tasks has been doubled from 12 to 24 and the total number of concurrent user tasks has been increased from 60 to 88.

Within the VS product line, the VS 85 provides another alternative for the larger VS user. As the following chart illustrates, while the VS 90 supports 8 IOPs as opposed to 6 on the VS 85, the VS 85 with cache now supports the same number of background tasks as the VS 90, with more workstations and more user tasks supported.

	VS 85 without cache	VS 85 with cache	VS 90	VS 100
Concurrent User Tasks	44	88	72	150
Background Tasks	12	24	24	24
Concurrent Serial WS	32	64	48	128
Concurrent WS & Printers	32	64	48	178

Users who have outgrown the configuration capabilities of the VS 85 can now field upgrade those systems to a VS 100. This growth path assures an effortless transition from the current VS 85 to the larger and more powerful VS 100. The transition does not involve any change in peripherals, system software or application software and is ideal for users who cannot afford extensive conversion downtime. As the VS 85 user grows, the system grows -- from an entry-level system without cache, to a medium-size cache system with increased configuration support, and finally to the larger VS 100 system.

ORDERING INFORMATION

The VS 85 packaged systems (VS85E, VS85F, and VS85G) will now include a 2-port disk IOP (22V88-2) to replace the current 4-port disk IOP (22V28). This disk IOP change is effective immediately for all VS 85 packages, and system package pricing remains unchanged. All orders booked after January 3, 1984 will be shipped with the 2-port disk IOP. All orders booked through January 3, 1984 will be shipped with the 22V28 disk IOP.

(continued)

NEW VS 85 CONFIGURATIONS AND UPGRADE ANNOUNCED (continued)

On the VS85E and VS85F packages, customers will have one available port for an additional disk drive. With the VS85G package, customers will have to upgrade their disk IOP to support additional disk drives beyond the packaged configuration.

Each of the following packages contains 1MB of main memory, a 16-port Serial IOP, and an archiving workstation. The VS operating system and Assembler are included, and the compiler may be VS COBOL, RPGII, BASIC or PL/I.

Model Number	Description	Purchase Price	Monthly Maint.
VS85E	VS85-1, 90MB Fixed/Removable Disk, 2-Port Disk IOP*, 3-Port Data Communications IOP, Disk Cables, Compiler	$ 79,000	$ 596
VS85F	VS85-1, 288MB Removable Disk, 2-Port Disk IOP*, 3-Port Data Communications IOP, Disk Cables, Compiler	84,000	665
VS85G	VS85-1, (2) 75MB Removable Disks, 2-Port Disk IOP*, 3-Port Data Communications IOP, Disk Cables, Compiler	94,000	730

* Orders booked through January 3, 1984, will be shipped with the 4-port 22V28 disk IOP. The 2-port 22V88-2 disk IOP will be shipped with orders booked after January 3, 1984.

Upgrade Job #	Description	Purchase Price
UJ-4001	VS85-2 With Cache to VS64	$ 20,000
UJ-4002	VS85-4 With Cache to VS128	20,000

NOTE: All orders for the upgrade must include the work order number for the VS 85 and for the cache.

The above VS 85 packages and upgrades are available immediately. An updated version of the VS 85, 90 and 100 Systems Data Sheet (order number 800-2118) will be available from the Supplies Division in February 1984.

NEW VS DISK IOP UPGRADES & SUPPORT ANNOUNCED

by VS Product Marketing

Increased support capabilities and new upgrade packages are now available for the VS 22V78 and 22V88 Disk Input/Output Processors (IOPs). Both the 22V88 for VS 85/90/100 and the 22V78 for the VS 80 now support the 75, 90, 288 and 640 MB disk drives, as well as the VS Disk Switch Options*. The disk drives can be configured in any combination up to four drives per IOP. There is a limit of two 22V78 Disk IOPs on a VS 80, four 22V88 Disk IOPs on a VS 100, two 22V88 Disk IOPs on a VS 90 or VS 85 with cache, and one 22V88 Disk IOP on a VS 85 without cache.

Upgrades are available for both the 22V78 and 22V88 Disk IOPs, allowing users to grow from the minimum 1-port configuration to a 4-port maximum. A system can be initially configured with the number of ports necessary for currently-installed disk drives and can be upgraded as additional disk drives are needed. Upgrade order numbers and prices are given below. (In the description, the IOP suffix indicates the number of ports.)

Upgrade Job #	Description	Purchase Price
UJ-3256	22V78-1 to 22V78-2	$ 1,500
UJ-3257	22V78-1 to 22V78-3	3,000
UJ-3258	22V78-1 to 22V78-4	4,500
UJ-3259	22V78-2 to 22V78-3	1,500
UJ-3260	22V78-2 to 22V78-4	3,000
UJ-3261	22V78-3 to 22V78-4	1,500
UJ-3262	22V88-1 to 22V88-2	1,500
UJ-3263	22V88-1 to 22V88-3	3,000
UJ-3264	22V88-1 to 22V88-4	4,500
UJ-3265	22V88-2 to 22V88-3	1,500
UJ-3266	22V88-2 to 22V88-4	3,000
UJ-3267	22V78-3 to 22V78-4	1,500

* The VS Disk Switch Options permit a disk drive to be physically interfaced to two VS systems simultaneously, and logically switched between the systems via commands from the operator's console. VS Disk Switch Options are available for 2265V-1 75 MB and 2265V-2 288 MB removable disk drives, and 2265V-3 640 MB fixed disk drives. VS Disk Switch Option prices are per disk:

Model Number	Description	Purchase Price	Monthly Maint.
SW04	Disk Switch Option for 2265V-1	$ 4,500	$ 25
SW04-1	Disk Switch Option for 2265V-2	4,500	25
SW04-3	Disk Switch Option for 2265V-3	4,500	25

2200 PERIPHERAL COMPATIBILITY CHART

by the Technical Support Center

The 2200 Peripheral Compatibility Chart on the following pages shows peripheral compatibility across the 2200 product line. The first column lists all 2200 peripherals by model number. Their sales status is given in the second column. ('AVL' indicates a currently-available model number, 'N/A' flags peripherals which are no longer actively marketed, and 'OBS' denotes peripherals which are obsolete.) A description of the peripheral appears in the next column, followed by an indication of all systems on which that peripheral can be used. Under each 2200 system heading, a 'Y' indicates that the peripheral is compatible; a blank space indicates incompatibility. An 'Opt' entry indicates that the specified option is required for use of that peripheral.

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2200WS Workstation	N/A	Independent 2200 processor which uses 2200 extended BASIC. Up to three 2200WSs can be multiplexed to a fourth with a 2230MXA to share a disk.		Y	Y	Opt.22	Y			Y	Y	Y	
2201 Output Writer	N/A	Modified IBM Selectric typewriter.	Y	Y	Y	Y	Y	Y	Y	Y			
2201L Output Writer	N/A	Modified IBM Selectric II typewriter capable of printout at 15 cps (characters per second).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2202 Plotting Output Writer	N/A	Modified IBM Selectric II typewriter capable of plotting and printing at 15 cps.		Y	Y	Y	Y						
2203 Paper Tape Reader	N/A	Reads punched paper tape at 30 cps.		Y	Y	Opt.22	Y			Y			
2207 Interface Controller	OBS	Obsolete RS232C Controller (use 2207A).											
2207A Interface Controller	N/A	Interface 2200 Series CPU with RS232C compatible device. Not a buffered controller.	Y	Y	Y	Y	Y			Y			
2209 Tape Drive	N/A	Nine-track tape drive capable of reading or writing 800 bpi (bits per inch) tapes.			Y		Y			Y			
2209A Tape Drive	AVL	Nine-track tape drive capable of reading or writing 1600 bpi tapes.			Y	Opts.23 & 24	Y			Y	Y	Y	
2210A CRT/Keyboard/ Mini-diskette	N/A	A 2200 Series console which combines a 64x16 character screen with a BASIC keyword keyboard and either one or two SSSD mini-diskette drives.		Y	Y	Y	Y			Y			
2210B CRT/Keyboard/ Mini-diskette	N/A	A 2200 Series console which combines a 80x24 character screen with a BASIC keyword keyboard and either one or two SSSD mini-diskette drives.		Y	Y	Y	Y			Y			
2211M Printer Multiplexer	AVL	Allows one 2200 Series printer or plotter (except the 2232 Flatbed Plotter) to be shared by up to four 2200 Series CPUs.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2212 Analog Plotter	N/A	A flatbed plotter for point or continuous line plotting.		Y	Y	Opt.22	Y			Y			

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2214 Card Reader	N/A	Reads mark sense cards using DATA LOAD BT Statements.		Y	Y		Y						
2216A CRT	N/A	CRT console used commonly with 2212 or 2223 keyboards.	Y	Y	Y	Y	Y			Y			
2216A/2217 CRT/ Cassette	N/A	Combined 2216A CRT with a single cassette drive.	Y	Y	Y	Y	Y						
2217 Cassette	N/A	Single-cassette drive to store BASIC programs and sequential data.	Y	Y	Y	Y	Y						
2218 Cassette	N/A	Dual-cassette drive to store BASIC programs and sequential data.	Y	Y	Y	Y	Y						
2219 Extension Chassis	N/A	CPU option to allow for five additional I/O slots. Adds 6 inches to length of CPU.	Y	Y	Y								
2220 CRT/Keyboard/ Cassette	N/A	A combined CRT/BASIC keyword keyboard and single-cassette drive.	Y	Y	Y	Y	Y						
2221M Printer Multiplexer	OBS	Obsolete printer multiplexer. Same capabilities as 2211M, but mechanical.											
2221W Printer	N/A	High-quality full ASCII set printer; uppercase and lowercase characters, 132 characters per line. 200 cps output.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2222 Keyboard	N/A	Combined keyboard with both standard or BASIC keywords. Also has editing keys.	Y	Y	Y	Y	Y			Y			
2224 Disk Multiplexer	N/A	Disk multiplexer to allow up to four CPUs to share a disk.		Y	Y	Y	Y						
2226A Terminal	N/A	Combines a 64x16 character CRT with a BASIC keyword keyboard.	Y	Y	Y	Y	Y			Y			
2226B Terminal	N/A	Combines an 80x24 character CRT with a BASIC keyword keyboard.	Y	Y	Y	Y	Y			Y			
2227 Interface Controller	OBS	Obsolete controller. Should be upgraded to 2227B controller.											
2227B Interface Controller	AVL	Allows either asynchronous telecommunications or interface to an RS232C device. Needs $GIO instruction set.		Y	Y	Y	Y	Opt.62	Opt.62	Y	Y	Y	Opt.27B
2228 Interface Controller	OBS	Obsolete controller. Should be upgraded to 2228B controller.											

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2228B/2228C Interface Controller	AVL	Allows all the capabilities of 2227B plus synchronous telecommunications, using 2780, 3780, Hasp, Burroughs, and 2200-2200 protocols.				Opt.24	Y	Opt.62B	Opt.62B	Y	Y	Y	Opt.28B & 28C
2229 Cartridge Tape Drive	AVL	14-MB backup.								Y	Y	Y	
2230 Disk	N/A	Fixed removable disk providing storage of 1.25, 2.5, and 5 MB.		Y	Y		Y			Y			
2230MXA/2230MXB Disk Multiplexer	N/A	Permits a disk to be shared by a maximum of four separate 2200 Series CPUs.		Y	Y	Opt.23	Y			Y	Y	Y	
2231 Printer	N/A	Full ASCII character set matrix printer. Prints 80 characters maximum at 100 cps.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2231W-1 Printer	N/A	Full ASCII character set matrix printer at 120 cps, 10 pitch, 110 characters per line.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2231W-2 Printer	N/A	Full ASCII character set matrix printer at 120 cps, 12 pitch, 132 characters per line.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2231W-3 Printer	AVL	Full ASCII character set matrix printer at 120 cps, 14.4 pitch, and 132 characters per line. May be used to plot output of 2282 Graphic CRT.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2231W-6 Printer	AVL	Full ASCII character set matrix printer at 70 cps. Letter quality, print quality, 10 or 12 pitch, and 132 characters per line.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2232A Plotter	N/A	Flatbed plotter with bed size of 31"x48". Stepping increment of .0025m.		Y	Y	Opt.22	Y			Y	Y	Y	
2232B Plotter	AVL	Flatbed plotter with bed size of 31"x48". More accurate than 2232A. Special product.		Y	Y	Opt.22	Y			Y	Y	Y	
2233 Matrix Printer	AVL	10 pitch and 12.2 pitch. Special control sequence pitch selection. 120 12.2 pitch cps. 100 10 pitch cps.							Y	Y	Y	Y	

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2234A Card Reader	OBS	Hopper feed card reader, able to read punched cards at a rate of 300 cards per minute.											
2235 Matrix Printer	AVL	132 character line at 10 pitch and 158 character line at 12.2 pitch. 181 10 pitch cps and 222 12.2 pitch cps.								Y	Y	Y	Y
2236 Terminal	OBS	Obsolete, use either 2236D or 2236DE terminal.											
2236D Terminal	N/A	Interactive terminal. Connects to either 2236MXD, 22C32 controller, or directly to SVP.					Y			Y	Y	Y	Y
2236DE Terminal	N/A	Interactive terminal. All features of 2236D plus repeating keys, multiple field attributes, and business graphics.					Y			Y	Y	Y	Y
2236DW Terminal	N/A	Interactive terminal. Supports WP. All features of 2236D plus repeating keys, multiple field attributes, and business graphics.					Y			Y	Y	Y	Y
2236MXC Terminal Processor	OBS	Obsolete, use 2236MXD terminal processor.											
2236MXD Terminal Multiplexer	AVL	Four-port terminal processor.									Y	Y	
2236MXE Terminal Multiplexer	AVL	Four-port terminal and asynchronous TC processor.									Y	Y	
2241 Printer	N/A	Thermal printer using matrix characters. Printing speed of 30 cps, using 8-1/2 inch roll of heat-sensitive paper.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2242 Diskette Drive	N/A	Double-removable diskette drive, using .25 MB Memorex diskettes.	Y	Y	Opt.23	Y				Y			
2243 Diskette Drive	N/A	Triple-removable diskette drive, using .25 MB Memorex diskettes.		Y	Y	Opt.23	Y			Y			
2244A Card Reader	N/A	Hopper feed card reader able to read mark sense or punched cards at a speed of 300 cards per minute.		Y	Y	Y	Y			Y			
2244B Card Reader	N/A	Same specifications as 2244A, but compatible with LVP and MVP.		Y	Y	Y	Y			Y	Y	Y	
2245 Matrix Printer	AVL	Reproduces the character sets of the 2236DE and 2236DW terminals in 10 and 16.5 pitch.								Y	Y	Y	Y
2250 Interface Controller	AVL	8-bit parallel I/O controller. Not a buffered controller. Needs $GIO commands.		Y	Y	Y	Y	Y	Y	Y			

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2251 Printer	N/A	Compact matrix printer, has 40 character line. Uses only 3-3/4 inch paper.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2252 Interface Controller	OBS	Obsolete, use 2252A interface controller.											
2252A Interface Controller	N/A	Scanning input (10 digit BCD) controller. Input only, not a buffered controller. Needs $GIO commands.	Y	Y	Y	Y	Y			Y			
2254 Interface Controller	N/A	IEEE compatible I/O interface controller, not a buffered controller. Needs $GIO commands.		Y	Y	Y	Y	Opt.65	Opt.65	Y			
2260 Disk Drive	N/A	Fixed/removable disk drive providing storage capacity of 2.5, 5, 10, and 20 MB divided evenly between two platters.	Y	Y	Y	Opt.23	Y			Y			
2260B Disk Drive	N/A	Fixed/removable disk drive providing storage capacity of 2.5, 5, 10, and 20 MB divided evenly between two platters.	Y	Y	Y	Opt.23	Y			Y	Y	Y	
2260BC Disk Drive	N/A	Fixed/removable disk drive providing storage capacity of 2.5, 5, 10, and 20 MB divided evenly between two platters. Uses 22C13 controller and needs 2230MXA-1.					Y			Y	Y	Y	
2260C Disk Drive	N/A	Fixed/removable disk drive providing storage capacity of 2.5, 5, 10, and 20 MB. Multiplexible 22C13. Uses 22C12 controller.					Y			Y	Y	Y	
2261 Printer	N/A	Matrix printer using two bidirectional printing heads. Prints at 330 cps with maximum of 132 characters per line.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2261W Printer	N/A	Matrix printer using four bidirectional matrix print heads. Prints maximum of 136 or 160 character line at 10 or 12 pitch at a speed of 240 lines per minute (lpm).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2262 Digitizer	N/A	X-Y digitizer input device.	Y	Y	Opt.22	Y							
2263-1 Printer	N/A	Chain printer printing 400 lpm at 10 pitch, up to 132 characters with 64 character set.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2263-2 Printer	N/A	Same capabilities as 2263-1, but prints at 600 lpm.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2263-3 Printer	N/A	Chain printer printing 430 lpm at 10 pitch. Up to 132 characters with a 96 character set.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2270 Diskette Drive 2270-1 one drive 2270-2 two drives 2270-3 three drives	N/A	Diskette drive able to read SSSD .25 MB diskette.	Y	Y	Y	Opt.23	Y		Y				
2270A Diskette Drive 2270A-1 one drive 2270A-2 two drives 2270A-3 three drives	AVL	Diskette drive capable of reading SSSD Wang diskettes or IBM 3741 format diskettes.		Y	Y	Opt.23	Y			Y	Y	Y	
2271 Printer	N/A	Modified IBM Selectric typewriter that prints bidirectionally at a rate of 15 cps in either 10 or 12 pitch.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2271P Printer	N/A	Same capabilities as 2271 but also has the capability to plot or perform form filling applications.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2272-1 Plotter	N/A	Single-pen drum plotter with a built-in alpha-numeric character set. Accuracy of .01 inch. Paper width of 16 inches is mandatory.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2272-2 Plotter	AVL	Same capabilities as 2272-1, but has three pens.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2273 Printer 2273-1 (250 lpm) 2273-2 (600 lpm)	AVL	Microprocessor-controlled band printer. Has both programmable VFU or form selector switch. Prints 132 characters at 10 pitch. Print font bands easily changeable.	Y	Y	Y	Opt.22	Y	Y	Y	Y	Y	Y	Y
2275-10 Diskette Drive	AVL	5-1/4" dual-sided floppy drive with 10 MB Winchester fixed drive.								Y	Y	Y	
2275-20 Disk Drive	AVL	Two 10 megabyte Winchester fixed drives.								Y	Y	Y	

PERIPHERAL MODEL NUMBER	SALES STATUS	DESCRIPTION	2200A	2200B	2200C	2200S	2200T	PCS	PCS2	VP	MVP	LVP	SVP
2280/2280N Disk Drive	AVL	High speed fixed/removable disk drive, using disk cache technology. 2280N comes without 22C14 DPU. 2280 includes 22C14 disk DPU.											
2280-1/2280N-1		13.4 MB removable, 13.4 MB fixed								Y	Y	Y	
2280-2/2280N-2		13.4 MB removable, 40.2 MB fixed								Y	Y	Y	
2280-3/2280N-3		13.4 MB removable, 67 MB fixed.								Y	Y	Y	
2281 Printer	N/A	Daisy wheel printer. Prints in either 10 or 12 pitch at 40 cps.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2281P Printer Plotter	N/A	Same capabilities as 2281, but also has plotting and form filling capabilities. Needs Opt. 121 for plotting or form filling.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2281W Printer Plotter	AVL	Same capabilities as 2281P, but product built by Wang must have BFT-1 for plotting and form filling.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2282 Graphic CRT	AVL	Output only graphic CRT. Connects to 2231W-6 Matrix Printer for hard-copy output.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2292 CRT	OBS	Auxiliary CRT for multi-viewer capabilities.											
2326DW Terminal	AVL	Interactive Ergo terminal with international keyboard for WP and DP use.								Y	Y	Y	Y
2336DE Terminal	AVL	Interactive Ergo terminal for DP use.								Y	Y	Y	Y
2336DW Terminal	AVL	Interactive Ergo terminal for WP and DP use.								Y	Y	Y	Y

2200 INTEGRATED SUPPORT SYSTEM, VERSION 5.3

by 2200 R&D

DESCRIPTION

Version 5.3 of the 2200 Integrated Support System (ISS) software is now available. ISS Version 5.3 supports the new 2200 hash capability and includes changes necessary to support the new DATE and TIME atomized keywords.

1. Atomized characters: DATE and TIME have been added as atomized keywords in Releases 2.4 and 2.5 of 2200 BASIC-2 Multi-User Operating System. ISS has been enhanced to handle these changes.

2. Hash: The only file to change extensively is ISS.229S which is the SEARCH INDEX routine. This routine supports the new catalog hashing algorithm included in Multi-User Operating System Release 2.5, which is not supported in earlier ISS versions. The size of the ISS.229S file in ISS Release 5.3 has increased by approximately .84K, going from roughly 1.5K bytes to approximately 2.4K bytes.

HARDWARE PRE-REQUISITES

Any 2200 VP, SVP, LVP, LVPC, MVP, or MVPC.

SOFTWARE PRE-REQUISITES

Either 2200 Single-User Operating System 2.4 or later, or 2200 Multi-User Operating System 2.4 or later

ALERTS

None

ORDERING INFORMATION

2200 ISS, Version 5.3, is available through normal order processing channels, on the three types of media listed below. DSDD mini-diskette media is for use with 2275-10 diskette drives. The Integrated Support System package is priced at $500; there is no charge for upgrading to ISS 5.3 from a previous ISS version.

System	Model #	Media
VP,MVP(C),LVP(C)	195-0052-3	3 SSSD Diskettes (701-2425E, 701-2427E, and 701-2719A)
VP,MVP(C),LVP(C)	195-0052-9	3 DSDD Mini-Diskettes (731-0085A, 731-0086A, and 731-0087A)
SVP,LVP(C)	195-0052-5	1 DSDD Diskette (731-0021B)

On the three-diskette media, diskette 1 contains the ISS utility and subroutines, diskette 2 contains KFAM-7, and diskette 3 contains SORT-4.

INSTALLATION INSTRUCTIONS

Execute a LOAD RUN, and respond to prompts.

(continued)

2200 INTEGRATED SUPPORT SYSTEM, VERSION 5.3 (continued)

PROBLEMS CORRECTED

1. ISS.031U - Change was made so that HEX(80) as part of a valid line number would be masked, as it resembles the keyword 'LIST' during compression. Without this change, a program going through compression which included any line from 8000 to 8099 may stop prematurely with an unrecoverable error.

2. ISS.081U - Change was made to line 1710 for the same reason noted above for ISS.031U.

3. ISS.217S - "DEFFN'254" on line 3880 was changed to "GOSUB'254". Without this change, the List/Cross Reference utility with the List option and the All option specified would crash on line 8310 with a P48 because slot 3 of the device table had no valid disk address assigned.

4. KFAM3707 - Change was made to line 4870 to initialize sector buffer in reorganize/rebuild subroutine. Without this change, reorganize/rebuild would not function properly with certain KFAM files.

5. The last absolute sector of the KFAMREFS file has been corrected so that it may be referenced properly.

KNOWN ANOMALIES

None

REFERENCES

The 2200 ISS Release 5 Reference Card (700-5560A) is included with the ISS 5.3 software. See also the 2200 Integrated Support System (ISS) User Manual, Release 5 (700-5010A).

2200 REMOTE CONTROL AND MAINTENANCE, VERSION 1.03

by 2200 R&D

DESCRIPTION

The 2200 Remote Control and Maintenance (RCM) system allows an RCM-equipped 2200 to perform diagnostics and program functions on one or more remote 2200 systems. This currently-available RCM release, version 1.03, provides support for the 2236MXE terminal processor, allowing use of an MXE telecommunications port.

HARDWARE PRE-REQUISITES

2200 SVP Control System:

- 2236D/DE/DW or 2336DE/DW or 2326DW Interactive Terminal
- Option 27B, 28B or 28C Communications Controller
- One Asynchronous modem*

2200 SVP Remote System:

- 2236LRS Interface
- One Asynchronous modem*

2200 LVP/MVP Control System:

- 2236D/DE/DW or 2336DE/DW or 2326DW Interactive Terminal
- 2227B or 2228B/C or 2236MXE Controller
- One Asynchronous modem*

2200 LVP/MVP Remote System:

- 2236MXD or 2236MXE Terminal Controller
- One Asynchronous modem*

* One Wang 2227N Null Modem can be used instead of the two asynchronous modems for distances less than 50 feet.

SOFTWARE PRE-REQUISITES

2200 Multi-User Operating System Release 2.5 or later

ORDERING INFORMATION

2200 RCM 1.03 software is available through normal order processing channels at a cost of $150. There is no charge for upgrades to Version 1.03 from earlier RCM versions. RCM software is available on the following types of media:

System	Model #	Media
VP,MVP(C),LVP(C)	195-2168-3	1 SSSD Diskette (701-2713B)
VP,MVP(C),LVP(C)	195-2168-9	1 DSDD Mini-Diskette (731-0092A)
SVP,LVP(C)	195-2168-5	1 DSDD Diskette (731-0033B)

PROBLEMS CORRECTED

None

KNOWN ANOMALIES

A p (underlined lower case p) cannot be sent to the remote system, since HEX(F0) is treated like an Edit key.

REFERENCES

2200 RCM System User Manual (700-6848)

2200 WORD PROCESSING, VERSION 2.2

by 2200 R&D

DESCRIPTION

Release 2.2 of 2200 Word Processing software is now available. 2200 Word Processing 2.2 contains bug fixes as well as the following functional enhancements:

- Extended Page Option- The operator can select an extended page size of 8K (8,363 characters per page) when creating a new document. This feature is particularly helpful when creating large tables that also use the Horizontal Scroll feature, which allows format lines of up to 158 characters. Use of Extended Pages and/or Horizontal Scroll requires a 42K partition.

- Editor - In 2200 Word Processing 2.2, the features of the Editor depend on the partition memory and on whether a standard or an extended page size is selected. The standard Editor (from WP Release 2.1) is loaded automatically if the terminal is attached to a 28K partition. The improved 2.2 Editor offers faster text entry and faster text deletion. This new Editor is loaded automatically if the terminal is attached to a 42K partition and the user selects the 4K standard page size (4,181 characters per page), or if the terminal is attached to a 56K partition and the user selects the extended page size.

- Supervisory Functions
  Volume Verify and Volume Recovery now appear on the Supervisory Functions menu. The Archive Recovery function now works with a range of documents, and has been restored to the Supervisory Functions menu. The Initialize Print Queue module has been added to the Supervisory Functions.

Diskette 1 of 2200 Word Processing 2.2 package 195-2174-5 can be used as a "kernel" version by users wishing to run Word Processing from their DSDD drives and store documents on the Winchester drive, rather than vice versa.

HARDWARE PRE-REQUISITES

.2200 VP/SVP/LVP(C)/MVP(C) with a minimum of 32K user memory
.A 2236DW, 2336DW, or 2326DW integrated terminal
.System disk with 1.25 MB available for the 2200 WP software
.A 28K partition, minimum, for each Word Processing user

SOFTWARE PRE-REQUISITES

MVP, LVP and multi-user SVP systems require Multi-User Operating System Release 2.3 or later. VP and single-user SVP systems require Single-User Operating System Release 2.5 or later.

(continued)

2200 WORD PROCESSING, VERSION 2.2 (continued)

ALERTS

1. Once a document has been created or edited using the Extended Page Option, it cannot be accessed by the standard (28K partition) Editor.

2. Column count in the $GIO editor is updated only at crossing lines, crossing white space (i.e. the area between tabs, etc.), and upon use of special control characters (crossing or typing).

3. 2245 and 2233/35 series printers are considered line printers for purposes of 2200 WP. Therefore, they will not underline, bold print, autoslash, or perform software-controlled form length settings.

4. Current documentation on the background monitor (Process Print Queue) is being corrected. It should be noted that when releasing a document to background, only three conditions are to be considered: (1) Attached terminal must be "00", (2) Status must be "W", (3) Global designation must be blank. All of these are checked for in PSTAT. Partitions 2-16 are checked sequentially and the first partition for which all three conditions are true will be attached by the initiating workstation as the new foreground partition, leaving the background monitor running in the original partition.

5. Word Processing 2.2 operates consistently with DATAMERGE 2.2. Former versions of DATAMERGE should not be used with 2200 WP 2.2, and former versions of 2200 WP should not be used with DATAMERGE 2.2.

ORDERING INFORMATION

2200 Word Processing Release 2.2 software is available through normal order processing channels, at a cost of $2000. There is no charge for upgrades to Release 2.2 from previous versions of 2200 Word Processing. WP 2.2 software is available on three types of media, as follows:

System	Model #	Media
VP,MVP(C),LVP(C)	195-2174-3	4 SSSD Diskettes (701-2700A, 701-2711A, 701-2712A, and) 701-2762)
SVP,LVP(C)	195-2174-5	2 DSDD Diskettes (731-0027A and 731-0129)
VP,MVP(C),LVP(C)	195-2174-9	4 DSDD Mini-Diskettes (731-0093A, 731-0094A, 701-0095A, and 701-0096A)

2200 Word Processing Version 2.2 contains 357 files.

(continued)

2200 WORD PROCESSING, VERSION 2.2 (continued)

Diskette 1 of 2200 Word Processing 2.2 package 195-2174-5 can be used as a "kernel" version by users wishing to run Word Processing from their DSDD drives and store documents on the Winchester drive, rather than vice versa.

INSTALLATION INSTRUCTIONS

Run job "WPINSTLL" from diskette #1 and respond to prompts.

PROBLEMS CORRECTED

1. Numerous Editor and Utility problems were corrected.

2. In Document Access Subroutines, print options within the administration page now pack correctly.

3. The following Print Functions changes were made:
   - Word wrap now consistent with the Editor.
   - Disk errors (I-90) on Quantum drives now prevented.
   - Footer/header line numbering/spacing corrected.
   - Extra page feeds between documents corrected.
   - Bin selection problems corrected.
   - Pitch selection problems corrected.
   - Anomalous "single" option platen movement corrected.
   - Terminal hang problem corrected.

4. In Special Print Functions,
   - Multiple page primary documents are now allowed in Merge Print.
   - Problems occurring when the first page of a primary document lacked merge codes have been corrected.
   - Print Index pitch selection problems corrected.
   - Print Index bin selection feature added.
   - CRT Image 15-pitch functionality added.

KNOWN ANOMALIES

1. If using the single DSDD diskette "kernel" version (Diskette 1 of Word Processing package 195-2174-5), the selection of any print queue function may result in a non-recoverable error. The selections that can cause such an error are as follows:
   - Queue Print Request (from Main Menu or Print Index)
   - Cancel Print Request
   - Select Next Print
   - Cancel Index Print

   A solution is to press RESET and LOAD RUN to rerun Word Processing; no file damage will occur.

2. When merging documents containing pages greater than the maximum size allowed by Word Processing, the resulting oversized pages will printing normally, but cannot be accessed for editing.

(continued)

2200 WORD PROCESSING, VERSION 2.2 (continued)

3. When printing underscored characters embedded within a line containing multiple bold print flags (underscored up-arrows) on a DW-20 printer, the underscore may print at the far left margin before resuming correct text printing. This function works correctly on 2281-W printers.

4. On a 2245 matrix printer, a cent sign will appear as the first character on each page. This is because the Epson pre-empts the hex code for Clear Buffer with a cent sign.

5. When printing a document, the starting page field on the Print Option Screen must have the leading zeroes entered, or bin selection may not work properly.

6. When a formula involving superscripts or subscripts is at the end of a line and forced to wrap to the next line, the initiating super/subscript is ignored and the terminating super/subscript actually causes the rest of the line to print as a super/subscript. Circumvention: Position a RETURN at the end of the line.

7. An error in the pointer from the File Control Block to the Volume Allocation Unit map will not be reported by Volume Verify. In this case, the volume could be damaged, but Verify would state that it was intact.

8. If there is a damaged volume and the error which occurred is in the pointer in the name tree which points to the top of the file, this particular volume cannot be recovered.

REFERENCES

2200 Word Processing Software Data Sheet (700-6560)
2200 Word Processing Operator's Guide (700-6937B)
2200 Word Processing Supervisor's Manual (700-6864B)
2200 Programmer's Guide to Word Processing (700-6961B)

2200 PRISM, VERSION 1.00 by 2200 R&D

DESCRIPTION

PRISM (Powerful Resource for Information and System Management) is a data-dictionary-based software system which allows the user to perform data entry, inquiry and report operations on a user-defined data base. PRISM uses two types of data files to store information: BASIC-2 files that are created through PRISM, or IDEAS-2 files that are created through the IDEAS-2 application. When a record is defined in the PRISM Data Dictionary, the user may select either a BASIC-2 or an IDEAS-2 file option. The BASIC-2 option allows the creation of a new BASIC-2 file to store information that will later be entered through the PRISM Data Entry functions. The IDEAS-2 option allows the use of PRISM to output information from an IDEAS-2 file that already exists.

Queries can be formulated on the data base by specifying selection conditions. The results of a query on the data base can have a variety of output formats, as specified by the Report options or the Document options (PRISMerge) of the Data Output functions. In addition to making a query on the data base, users can process selected data by creating a process definition. The process definition allows users to specify how PRISM sorts and processes fields from the selected records. Multiple fields, excluding derived fields, can be selected for sorting in a process definition. PRISM uses box graphics to visually represent the relationship among fields in the process definition and to represent the hierarchy created by sort groups.

HARDWARE PRE-REQUISITES

2200 VP, SVP, LVP, or MVP. Each 2200 terminal running PRISM requires a 40K partition.

SOFTWARE PRE-REQUISITES

MVP, LVP and multi-user SVP systems require Multi-User Operating System 2.3 or later. VP and single-user SVP systems require Single-User Operating System 2.5 or later.

If PRISM is to be used in conjunction with Word Processing, 2200 Word Processing Version 2.2 must be installed on the disk surface prior to installing PRISM. PRISM 1.00 will not function with 2200 Word Processing Version 2.0 or 2.1.

ALERTS

If a record definition is edited by the user, all field sets and templates based upon that record are automatically deleted from the dictionary.

(continued)

2200 PRISM, VERSION 1.00 (continued)

ORDERING INFORMATION

2200 PRISM 1.00 software is available through normal order processing channels at a cost of $1500. The PRISM software is composed of 339 files, available on the following media:

System	Model #	Media
VP,MVP(C),LVP(C)	195-2217-3	4 SSSD Diskettes (701-2758, 701-2759, 701-2760, and 701-2761)
VP,MVP(C),LVP(C)	195-2217-9	4 DSDD Mini-Diskettes (731-0125, 731-0126, 731-0127, and 731-0128)
SVP,LVP(C)	195-2217-5	1 DSDD Diskette (731-0124)

INSTALLATION PROCEDURES

To install the PRISM software, run the PRISM installation utility, PRS.INST, and respond to the prompts. To complete a new installation of PRISM, it is also necessary to create a PRISM Data Dictionary and a User Default File (see Appendix A of the 2200 PRISM User Manual). If PRISM is to be used in conjunction with 2200 Word Processing, the Word Processing software must be installed prior to, and on the same physical disk surface as, the PRISM software. PRISM and DATAMERGE must not be installed on the same platter, because the two software packages have several identically-named files.

PROBLEMS CORRECTED

None; initial release

KNOWN ANOMALIES

1. PRISMerge does not always handle large list fields properly.

2. Box move sometimes allows moves across section boundaries.

3. An A01 fatal error, rather than a PRISM message, is encountered if the user has not allocated enough memory (40K) to run PRISM.

4. A P34 fatal error occurs if the user deletes a field description when editing a Record Description.

5. A P57 fatal error occurs in line 210 of DMD.LCON when loading Conditional Substitution fields. This error is prompted by user making a change to either the PRISMerge document or Field Set of a pair.

REFERENCES

PRISM Data Sheet (700-7011A)
2200 PRISM User Manual (700-7021)

2200 DATAMERGE, VERSION 2.2
by 2200 R&D

DESCRIPTION

DATAMERGE allows users to extract data from an IDEAS-1 or IDEAS-2 file and merge it into a 2200 Word Processing "pattern" document. The WP "pattern" document contains merge characters and names of the IDEAS data fields from which the data is to be obtained. DATAMERGE Version 2.2 contains the following enhancements:

- DATAMERGE now has the ability to add condition lines to boxes during review.
- 40-character description fields now accompany DATAMERGE definition names.
- The DATAMERGE definition utility now performs similarly to the Data Definition function of the PRISM software.

HARDWARE PRE-REQUISITES

2200 VP/SVP/LVP(C)/MVP(C) with a 28K partition, minimum.

SOFTWARE PRE-REQUISITES

Word Processing 2.2 must be installed to disk prior to the installation of DATAMERGE 2.2. DATAMERGE 2.2 will not operate with WP 2.0 or 2.1.

ALERTS

Because of duplicate file names, DATAMERGE and PRISM may not reside on the same disk. Loading either of these software packages onto a disk where the other software resides will cause the original files to be overwritten.

ORDERING INFORMATION

DATAMERGE 2.2 is available through normal order processing channels at a cost of $250. There is no charge for upgrades to DATAMERGE 2.2 from an earlier version. DATAMERGE 2.2 is composed of 164 files, and is available on SSSD diskette, DSDD diskette or DSDD mini-diskette. To order, specify one of the model numbers given below:

System	Model #	Media
VP,MVP(C),LVP(C)	195-2208-3	2 SSSD Diskettes (701-2720C and 701-2721C)
VP,MVP(C),LVP(C)	195-2208-9	2 DSDD Mini-Diskettes (731-0100A and 701-0101A)
SVP,LVP(C)	195-2208-5	1 DSDD Diskette (731-0040C)

INSTALLATION PROCEDURES

Run program "DMINSTLL" from diskette 1 and respond to the prompts. Before DATAMERGE is run for the first time, data dictionary files must be created and initialized using the "DDU.INIT" program.

(continued)

2200 DATAMERGE, VERSION 2.2 (continued)

PROBLEMS CORRECTED

1. Data editing now functions as documented.

2. Word Processing merge/print now functions, if DATAMERGE 2.2 has been installed.

3. Page breaks may now be inserted and deleted within a Super document.

4. The In-Use flag is now set on the selected records document if a background merge/print is requested.

5. Copy control now functions properly.

KNOWN ANOMALIES

1. A P57 error occurs in line 6190 of PKEX1 when "deriving fields" for an IDEAS2 definition.

2. A P57 error occurs in line 6257 of DFA.IFE when selecting records in an empty IDEAS2 datafile.

4. A P57 error occurs in line 2087 of LPMERGO2 when the menu option to "individually edit each merged document before print" has been chosen.

5. A P57 error occurs in line 6200 of SKD.FVAL in the edit mode to make a derived field equal to another similar field.

REFERENCES

2200 DATAMERGE User Manual (700-6881B)

MICROSOFT WINDOWS FOR THE WANG PC
by Wang PC Product Marketing

Wang Laboratories is pleased to announce that Microsoft Windows software will be available for the Wang Professional Computer. Microsoft Windows (MS Windows) is an extension to MS-DOS, providing a common operating environment for applications programs that utilize a bit-mapped display and mouse pointing device.

DESCRIPTION

Microsoft Windows is a software extension to Microsoft's operating system, MS-DOS, which consists of two parts: a window manager and a graphics device interface. The two elements work together to create a universal environment for developing and running the new generation of bit-mapped application software on 16-bit microcomputers. As implemented on the Wang PC, Microsoft Windows creates an environment offering users the following advantages:

- Support for Mouse Cursor Control Devices
- Windowing for Multiple Application Viewing
- Data Interchange Between Programs
- General Interface to Bit-Mapped Screens
- Support for Application Portability Between Hosts
- Device Independence

Microsoft Windows provides the windowing interface between application programs and the hardware. Its display capabilities are performed by calling device independent graphics subroutines. Programs which run on MS-DOS 2.0 will run on a Microsoft Windows system, the only difference being that they will appear either full-screen or in one of the windows created by the window management system.

Screen Layout

MS Windows divides the screen into three major areas: the message area, the icon area, and the windows area. The message area provides a place for prompts, messages and error reporting. The icon area displays the icons for the applications that have been loaded but are not currently in use. Each application that is opened is given a window in the windows area.

Automatic Window Layout and Window Tiling

MS Windows implements automatic window layout based on window tiling rather than overlapping windows. The term automatic window layout refers to the MS Windows technique of choosing the best size and position for any given window initially, and reevaluating that decision as screen area availability fluctuates. Automatic window layout uses every pixel on the screen at all times. The term tiling refers to the technique of dividing the screen horizontally into columns and dividing the columns vertically into windows. The column and window boundaries are completely arbitrary.

(continued)

MICROSOFT WINDOWS FOR THE WANG PC (continued)

Applications Programs

An MS-DOS system with MS Windows can run three types of application programs: MS-DOS based programs, MS-DOS compatible programs, and MS Windows compatible programs.

MS-DOS Based Applications Programs:
Wang PC core software is all MS-DOS based. When an MS-DOS based program is loaded, the state of all windows currently running under MS Windows is written on disk, and the MS-DOS based application program gets the entire screen and full access to MS-DOS and its devices. When the program exits, MS Windows restores the windows and the application programs that were running in them.

MS-DOS Compatible Application Programs:
An MS-DOS compatible program is character based and uses standard I/O procedures that can be communicated through MS Windows. For such a program, MS Windows creates a window, supplies input from the hardware to the program, and displays output from the program. The program assumes it has the entire machine, and the user sees the program through the window created by the window manager. It is therefore possible for MS-DOS programs written without MS Windows to run on an MS Windows system.

MS Windows Compatible Application Programs:
An application program that is MS Windows compatible uses MS Windows to implement its window and user interface. To produce this user interface through MS Windows, the application program defines a "window class." The window class is a complete description of the interface personality for a type of client program; how it will handle hardware events, how it will handle requests for data from other programs, what cursor it will use in different regions of the screen, and what icon will represent it when it is closed.

User Interface

The window manager provides a library of user interface functions that the application program uses to display the application on the screen. The user interface facilities included in this library are menus, property sheets, scroll bars, universal window commands, error handling, data interchange, and automatic window layout.

Menus:
Application programs may choose either static or pop-up menus. A static menu is always present on the screen while the application window is open. A pop-up menu may be posted any time the application wants to display a list of menu items temporarily.

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MICROSOFT WINDOWS FOR THE WANG PC (continued)

Property Sheets:
A property sheet is a super-class of menus that provides command options of fill-in types or enumerated types for selection. For example, a word processing application may call the enumerated type property sheet to display a list of font sizes that can be selected or deselected with mouse clicks.

Scrolling:
Vertical and horizontal scroll bars and the ability to scroll through the application's display are provided as part of the interface library. A scrolling position indicator is provided on the scroll bars to show the user's relative position in the application.

Universal Window Commands:
The universal commands are not specific to the application, but perform window maintenance for the application when a user requests a change in the condition of the window. The functions available include: open and close the window, discard the window, and change the size or position of the window. The HELP command is also in this category.

Error Handling:
MS Windows makes it possible for the application to report an error to the user by providing a message area. The user interface library also has routines that route feedback from the user after an error, as necessary.

Data Interchange:
MS Windows' application programs run independently of each other, but it is also possible for them to interact with each other by exchanging data. An example of this application integration would be selecting text in one window and inserting it in another window that is running a different application. MS Windows provides a set of predefined data types to be used in the transmission of data between applications.

Automatic Window Layout:
MS Windows automatically adjusts the size and shape of windows, based on available screen space and input from the user. When a user changes the size or position of one window, MS Windows automatically adjusts the remaining windows to maintain their relative size and position, and redraws the entire screen leaving no gaps.

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MICROSOFT WINDOWS FOR THE WANG PC (continued)

MARKETING STRATEGY

The announcement of Microsoft Windows for the Wang PC positions Wang at the forefront of the microcomputer trend toward a standard operating environment that supports bit-mapped screens, mouse devices, sophisticated windowing functions, portability and device independence. As software is developed to make use of these features, Wang PC users will be able to quickly and easily take advantage of the new and improved applications.

With this announcement, Wang positions the Wang PC as an industry compatible system. Wang Laboratories is joining with more than 20 other vendors in supporting Microsoft Windows. By including the industry standard operating system in our product line, Wang offers Wang PC customers the opportunity to implement third party software within the MS-DOS / MS Windows environment on the Wang PC without the problems associated with conversion. Wang PC customers will also be able to transport their own applications to other MS-DOS / MS Windows compatible systems and expect them to execute properly without making changes to the programs.

Microsoft Windows and Wang PC Multi-Station

This announcement of Microsoft Windows for the Wang PC, together with the announcement of PC Multi-Station (see pages 170-172 of ISO Tech News #4, November 1983) is part of a cohesive strategy to expand the operating and windowing flexibility of the Wang PC for all users. PC users, whether stand-alone or attached to a Wang VS, can now take advantage of multiple window displays, fully integrated applications, and several other important features, depending on the specific environment they select.

Microsoft Windows:

With the addition of Microsoft Windows to the MS-DOS operating system, stand-alone PC systems can employ multi-window display techniques and mouse pointing devices in an integrated, machine-independent environment. Microsoft Windows sets a standard for the creation of applications, and its implementation on the Wang PC establishes the Wang PC as one of a group of compatible systems on which future software packages will run. On the Wang PC, Microsoft Windows is positioned as a development system, emerging as an industry standard, for vendor to vendor compatibility.

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MICROSOFT WINDOWS FOR THE WANG PC (continued)

PC Multi-Station:
PC Multi-Station is targeted toward Wang PC users who plan to use the PC as a VS workstation. Operating in conjunction with VS Multi-Station on the VS, PC Multi-Station provides a multi-tasking, multiple window environment for a Wang PC attached to the VS. Multiple VS tasks and a PC task can be run from the PC and be simultaneously displayed on the PC. Wang PC Multi-Station software is intended for the user who wants multiple windows and multi-tasking (using the VS), and who wants virtual disk storage for one or more PCs on the VS.

With these two software offerings, Wang PC users, whether operating under the Wang PC's MS-DOS with Microsoft Windows or with PCs attached to VS systems as VS workstations, can improve their productivity and effectiveness by displaying information from multiple applications, and transferring information from one application display to another.

ORDERING INFORMATION

To run on the Wang PC, Microsoft Windows will require 32KB of memory in addition to systems and applications memory requirements, a mouse, two disk drives (two diskettes or one diskette and one Winchester hard disk), a bit-mapped display, and the PC-PM002 Graphics Card. Availability of Microsoft Windows as a standard upgrade for the Wang PC operating system is anticipated to be Q4, FY'84. The Wang Mouse is expected to be available in Q4, FY'84 through Wang Supplies Division.

Since Microsoft Windows will be included in the MS-DOS operating system for the Wang PC, there will be no separate Microsoft Windowscharge for new PC orders. Existing Wang PC customers wishing to upgrade from previous versions of the operating system to the MS-DOS/MS Windows operating system may order the following upgrade:

Upgrade Job #	Description	Purchase Price
UJ-3199	Upgrade to enhanced MS-DOS / MS Windows operating system	$ 100

PC SOFTWARE RELEASE LEVELS

Currently-released core software for the Wang Professional Computer is listed below. Although an attempt has been made to list hardware and software requirements of each software release, this list of requirements may not be complete. Newly-released software is indicated by an underscored version number.

MODEL #	I/U*	DESCRIPTION	PKG. #	VERSION	HARDWARE REQUIREMENTS**	SOFTWARE REQUIREMENTS
System Software						
PC-SS001	U	System Software Diskette	195-2326-9	V1.22	128K RAM, 1,2,3+,4 or 5	(V1.21 Printer Support Menu changed)
PC PM050	I	CP/M-80 Emul. Card & Sft.	195-2738-9	V1.00	128K RAM, 1,2,3+,4 or 5, 6 or 7	System Software V1.00 or later
PC-SS005	I	CP/M-80 Emul. Sftware Only	195-2738-9	V1.00	128K RAM, 1,2,3+,4 or 5, 6 or 7	System Software V1.00 or later
Languages						
PC-SS010	I	MS-Compiled BASIC	195-2327-9	V1.00	128K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS012	I	MS-FORTRAN	195-2329-9	V3.04	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS011	I	MS-Pascal	195-2328-9	V3.04	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
PC-SS013	I	MS-COBOL	195-2330-9	V1.07	256K RAM, 1,2,3+,4 or 5	System Software V1.00 or later
Productivity						
PC-AS001	U	PC Multiplan	195-2338-9	V1.06.05	128K RAM, 1,2,3,4 or 5	System Software V1.10 or later
PC-AS002	U	PC Word Processing	195-2339-9	V1.11	128K RAM, 1,2,3+,4 or 5	System Software V1.10 or later
PC-AS002-2	I	PC Advanced Word Process.	195-2755-9	V2.0	256K RAM, 1,2,3+,4 or 5	System Software V1.21 or later
PC-AS003	I	PC Business Graphics	195-2462-9	V1.00	256K RAM, 1,2,3+,4+ or 5	System Software V1.21 or later
PC-AS005	I	PC Notebook	195-2621-9	V1.0	128K RAM, 1,2,3R,4 or 5	System Software V1.10 or later
PC-CS001	I	Productivity I (Multiplan/WP/Async.)	196-0002-9	N/A	128K RAM, 1,2,3+,4 or 5	System Software V1.10 or later
Telecommunications						
PC-SS020	I	PC Async.Comm. (inc.2200)	195-2331-9	V1.00	128K RAM, 1,2,3,4 or 5	System Software V1.00 or later
PC-PM041	I	PC Local Communications	195-2647-9	V1.01	128K RAM, 1,2,3,4,6	System Software V1.10 or later
PC-SS063	I	3276 SNA/SDLC Emulation	195-2605-9	V1.08E	128K RAM, 1,2,3,4 or 5, 8	System Software V1.10 or later
PC-WSNT-MS	I	PC Multipoint Secondary***	195-2803-9	V2.1	128K RAM, 1,2,3,4 or 5, 9	System Software V1.10 or later
PC-WSNT-BSS	I	BSS File Trans./Term.Em.***	195-2806-9	V2.1	128K RAM, 1,2,3,4 or 5, 9	System Software V1.10 or later
PC-SS060	I	Batch 2780/3780/WPS Option	195-2337-9	V2.01	128K RAM, 1,2,3,4 or 5, 9	System Software V1.10 or later

* I = Initial Release; U = Updated Version

** Hardware Requirements:
- 1 - Wang PC CPU Board #210-8221, with V1.00 Boot EPROMs (ECO 26344)
- 2 - Wang PC Keyboard
- 3 - One 5.25" DSDD diskette drive
- 3+- Two 5.25" DSDD diskette drives preferred
- 3R- Two 5.25" DSDD diskette drives or one 10 MB Winchester drive required
- 4 - PC-PM004 Wang Monochrome Monitor with PC-PM001 character resolution board #210-8243
- 4+- PC-PM004 Wang Monochrome Monitor with PC-PM001 character res. board #210-8243 and PC-PM002 graphics res. board #210-8233
- 5 - Industry-standard monitor (RGB or B&W) with PC-PM003 character/graphics board #210-8222 using 80-column mode only
- 6 - PC-PM041 Wang PC Local Communications Option Card Set (Data Link Board #210-8245 and CPU Board #210-8246)
- 7 - PC-PM050 Wang PC CP/M 80 Emulation Card #210-8248
- 8 - PC-PM042 Wang PC Multiport Controller Card #210-8251
- 9 - PC-PM040 Wang PC Remote Telecommunications Card #210-8232

*** Wang Systems Networking (WSN) software formerly bundled as Remote WangNet with the PC-PM040 Remote Communications Option. Orders for PC Remote WangNet must now specify a Transport (such as PC-WSNT-MS), a Service (PC-WSNS-BSS Basic Support Service, containing File Transfer and VS Terminal Emulation), and the Wang PC Remote Telecommunications card (PC-PM040). The three items were formerly bundled in PC-PM040. Color (RGB) monitors do not function with these Wang PC WSN software packages.

WANG PC BUSINESS GRAPHICS, V1.00
by Wang PC R&D

DESCRIPTION

The Wang Professional Computer Business Graphics program uses versatile English language commands that enable Wang PC users to create many different types of graphs in a wide spectrum of colors. Users are not limited to options on a menu and do not need to learn a special technical language. Version 1.00 of the Wang PC Business Graphics software is now available and shipping.

HARDWARE PRE-REQUISITES

Wang PC CPU board #210-8221 with V1.00 Boot EPROMs.

A minimum of 256 KB standard RAM.

One (preferably two) 5.25" DSDD diskette drives.

A Wang Monochrome Monitor with character resolution board #210-8243 and graphics resolution board #210-8233, or an industry standard RBG or B&W monitor with low resolution character/graphics board #210-8222.

For production of hard-copy, the Wang PC Business Graphics software supports the Epson MX80 dot-matrix printer, the Houston Instruments HIPLOT DMP29 plotter, and the Hewlett Packard HP7470 plotter. (See ALERT 1 below.)

SOFTWARE PRE-REQUISITES

This release of the PC Business Graphics software requires V1.21 or later of the Wang PC System Software.

ALERTS

1. The user should display the README text file included on the Business Graphics Program Diskette. This file contains important documentation changes regarding printer and plotter usage. These changes, which were made in the software after the documentation went to press, are summarized in the REFERENCES section on pages 267-268.

2. To execute the Wang PC Business Graphics software from the MS-DOS Command Processor, enter PLOT after the DOS prompt for the diskette drive on which the Business Graphics program diskette is mounted, and press RETURN.

(continued)

WANG PC BUSINESS GRAPHICS, V1.00 (continued)

ALERTS (continued)

3. The standard selections included on the Wang PC Applications menu do not include access to the Wang PC Business Graphics software. Instructions for adding this menu pick are given under INSTALLATION INSTRUCTIONS below.

4. If the Business Graphics program diskette has been mistakenly write-protected, attempting to install a Business Graphics device (as described in Section 3.4 of the Wang PC Business Graphics Reference Guide) will generate an "error code 8" message. To rectify the situation, remove the write-protect tab and re-install the device.

5. If one of the grey keys on the keyboard is accidentally pressed while running the Business Graphics "Install Device" utility, a foreign character may appear on the screen. To erase this character, press the backspace key twice.

ORDERING INFORMATION

Wang PC Business Graphics V1.00 is available through normal order processing channels as model number PC-AS003 at a cost of $300. This release of the Wang PC Business Graphics software (package number 195-2462-9) is contained on two 360 KB MS-DOS volumes. Volume "WPCBGV0100" (media number 734-0050) is the Program Diskette, and volume "PCBGTRNV100" (media number 734-0063) is the Training Data Diskette. The Training Data Diskette is intended to be used with the Wang PC Business Graphics Training Guide (700-8300).

INSTALLATION INSTRUCTIONS

Wang PC Business Graphics may be accessed via the DOS Command Processor by running PLOT.EXE. The standard selections included on the Wang PC Applications Menu do not include access to the Wang PC Business Graphics software. To add Business Graphics as a menu pick on the Applications Menu, select the Modify Systems Menus option from the Systems Utilities screen, and edit APPMENU.DAT. Specify program file PLOT with an extension of EXE as the file to be invoked by the Business Graphics menu pick.

PROBLEMS CORRECTED

Not applicable; initial release

KNOWN ANOMALIES

None; see ALERTS

(continued)

WANG PC BUSINESS GRAPHICS, V1.00 (continued)

REFERENCES

The following reference material is shipped with Wang PC Business Graphics V1.00 software:

Wang PC Business Graphics Training Guide (700-8300)
Wang PC Business Graphics Reference Guide (700-7603)
Wang PC Business Graphics Binder (700-8336)
Wang PC Business Graphics Quick Reference Card (700-8613)

Documentation Corrections:

The following text summarizes information contained in file README on the Wang PC Business Graphics Program Diskette, volume "WPCBGV0100", as discussed in ALERT 1 on page 265. This information itemizes corrections to the Wang PC Business Graphics Reference Guide (700-7603).

1. The first sentence of the last paragraph in Section 3.3.5 on page 3-4 of the Wang PC Business Graphics Reference Guide is incorrect. It should read:

   > If you do not issue the SET OUTPUT UNIT command, the computer assumes either SERIAL/AUX or PARALLEL/PRN communications, whichever was used in the last issued SET OUTPUT UNIT command.

2. The special NOTE in the middle of Section 3.4 on page 3-4 should be completely disregarded.

3. In Section 3.7.2, beginning on page 3-17, disregard all discussion of the (<XYY>) argument of the SET DEVICE HP7470 command. The correct form of this command is, simply, SET DEVICE HP7470 (<size>) (<number of pens>). The (<size>) argument works as documented in SECTION 3.7.2. The (<number of pens>) argument specifies the number of pens installed in the plotter. The options are 1 or 2, indicating one pen or two pens respectively.

4. Disregard the last sentence of Section 3.8 on page 3-20; serial port parameters are established using the "Printer Support" utility on the Main menu.

5. Section 3.3.4, entitled Configuring the System Software, on Page 3-3 of the Wang PC Business Graphics Reference Guide, is incorrect as printed. In order for Business Graphics to communicate with a printer or plotter, the steps on the following page should be performed.

(continued)

WANG PC BUSINESS GRAPHICS, V1.00 (continued)

Printer/Plotter Usage with Wang PC Business Graphics:

First, make sure that the Wang generalized serial or parallel driver is installed in CONFIG.SYS on the Wang system disk, as discussed in the January 1983 issue of ISO Tech News, pages 222-223. These two generalized drivers are distinct from the Business Graphics device drivers discussed in Section 3.4 of the Wang PC Business Graphics Reference Guide.

Next, the generalized printer driver must be placed in transparent mode. The five steps involved in this procedure are described on pages 226-227 of the January 1984 issue of ISO Tech News. If the peripheral is a serial device, enter a "Y" in response to the question at the top of the Supported Functions screen on which Transparent Mode is selected. When the second Supported Functions screen appears, enter the appropriate serial device information, such as the following parameters for the PC-PM012 daisy printer:

Baud rate:	1200
Parity:	None
Word length:	8 bits
Stop bits:	1

WANG PC BATCH COMMUNICATIONS, VERSION 2.01
by Wang PC R&D

Wang PC Batch Communications emulates IBM 2780/3780 and WPS protocols. It provides batch transfer of documents and files. The Wang PC 2780/3780/WPS Batch Communications Software supports any RS-366 compatible automatic calling unit that is operationally equivalent to a Bell 801C. For communications up to 50 feet, a pair of RS-232-C compatible cables and one Wang Null Modem (model 2228N) can be used (in lieu of a pair of synchronous modems) to connect the Wang PC to a synchronous host computer.

HARDWARE PRE-REQUISITES

1. Wang PC CPU board #210-8221 with V1.00 Boot EPROMs.
2. A minimum of 128K standard RAM.
3. One (preferably two) 5.25" DSDD diskette drives.
4. A Wang PC Monochrome Monitor (PC-PM004) with an attached Character Display Card #210-8243 (PC-PM001), or an industry standard monitor or television (color or B&W) with an attached Wang PC Color/Graphics Display Card #210-8222 (PC-PM003).
5. A Wang PC Remote Telecommunications Controller board #210-8252 (PC-PM040). The RTC board provides an RS-232-C synchronous port for high-speed data communications. In addition, there is an RS-366 connector included on this board for the use of an optional automatic calling unit. Chapter 10 of the Wang PC Technical Reference Manual (700-8332) contains further information concerning the RTC board.

SOFTWARE PRE-REQUISITES

1. This release of the Wang PC 2780/3780/WPS Batch Communications software requires V1.10 or later of the Wang PC System Software.

ALERTS

1. When transmitting punch data in non-transparent mode, the 2780/3780/WPS Batch Communications software will search each record for carriage return/line feed groups. If such groups are found, the record will be expanded to 80 characters to facilitate the transmission of JCL files to IBM systems.

2. When using the Wang PC Text Editor to create JCL files for transmission to IBM systems, specify "COMPRESS = FALSE" in PCEDIT's configuration file (CONFIG.EDT). This will ensure that multiple, consecutive spaces are not replaced by tab characters in the file created by the Editor.

3. Double underscore and bold printing notations are not supported by WPS mode in this release.

(continued)

WANG PC BATCH COMMUNICATIONS, VERSION 2.01 (continued)

ALERTS (continued)

4. To abort the file transfer in progress when transferring or receiving a file, it is necessary to first press CANCEL and then to press SHIFT and CANCEL simultaneously.

5. The Wang PC System Software does not include a menu pick for Batch Communications. To add 2780/3780/WPS Batch Communications as a menu pick on the Communications Menu, select the Modify System Menus option from the System Utilities screen, and edit the existing Communications Menu, TCMENU.DAT. Specify file name PCBISYNC with an extension of DAT as the menu file to be invoked by the 2780/3780/WPS Batch Communications menu pick.

6. There is no help text included in this release for the main 2780/3780/WPS Batch Communications menu. If the HELP key is pressed at this point, the message "File PCBISYNC.HLP not found" is displayed.

PROBLEMS CORRECTED

Not applicable; initial release.

KNOWN ANOMALIES

1. When receiving transmitted print files to a Winchester or floppy and the disk becomes full, the Wang PC will proceed as if it is still processing records (incrementing records-processed counter, sending ACK1/0 in response to received blocks, etc.). Since the Wang PC acknowledges the reception of data blocks to the transmitting station, the station will continue to send more blocks of data to the Wang PC which cannot be written to disk and the data will be lost. The data received to disk prior to this situation is maintained and is accessible to the user.

2. If no printer is physically attached to the Wang PC during on-line printing, the system will hang. To prevent this, data can be received to disk and then printed, rather than being sent directly to the printer.

3. The receive-record-processed counter does not work after four digits. The counter is accurate up to 9999.

(continued)

WANG PC BATCH COMMUNICATIONS, VERSION 2.01 (continued)

ORDERING INFORMATION

The Wang PC 2780/3780/WPS Batch Communications software (model number PC-SS060) is available through normal order processing channels at a cost of $200. The software is shipped on one double-sided, dual-density diskette, volume "BISYNCV201", which contains the following files:

Package #	Contents
195-2337-9	1 DSDD mini-diskette (734-0046A) containing the following files:

File Name	Version	Description
BBCMSG	V2.01	Screen and Menu Messages
PCBBC.COM	V2.01	Activate Comm. Session Module
PCBBCNFG.COM	V2.01	Configure Comm. Session Module
PCBISYNC.DAT	V2.01	Main Batch Communications Menu
RTCV21.DRI	V2.01	Remote TC Device Driver
BBCMICRO.EXE	V2.01	Remote TC Microcode
BBCHELP1.MSG	V2.01	Session/Connection Help File
BBCHELP2.MSG	V2.01	" " " "
BBCHELP3.MSG	V2.01	" " " "
BBCHELP4.MSG	V2.01	" " " "
BBCHELP5.MSG	V2.01	Active Comm. Screen Err. Msgs.

REFERENCES

Wang PC 2780/3780/WPS Batch Communications Guide (700-8039)

Editor's Note: Wang Laboratories now supports two versions of word processing for the Wang Professional Computer. The original WP package, known as Model PC-AS002, runs on a 128KB Wang PC, and has been reduced in price to $400. Wang now also offers an Advanced WP package, Model PC-AS002-2, at a cost of $500. The advanced version includes Document Filing, Spelling Verifier, and Advanced Editor functions, and requires a Wang PC with 256KB of memory.

WANG PC ADVANCED WORD PROCESSING, VERSION 2.0

by Wang PC R&D

DESCRIPTION

The first release of Wang PC Advanced Word Processing, Version 2.0, is now available. Advanced Word Processing is significantly more powerful than the basic Wang PC Word Processing package. Wang PC Advanced Word Processing includes Special Print Functions such as Hot Print, Merge Print, Typewriter and Print Spooling; Document Filing including filing between OIS or VS systems and the Wang PC; Math Pack; Sort; Spelling Verifier and Dictionary Builder.

With the Advanced WP Document Filing utilities, Wang PC WP documents are convertible to either OIS Mini-archiver or Wangwriter format, or vice-versa. In addition, documents are transferable directly to and from OIS or VS systems connected through the Local Communications option.

The new Spelling Verifier utility scans a document, comparing the text with words in a software-supplied dictionary, and indicates spelling errors. Misspelled words can then be replaced with correctly spelled words. The user can also prepare a personal dictionary to supplement the 30,000 word standard dictionary.

Wang PC Advanced WP allows users to merge primary and secondary documents into one document at the printer. Although this is similar to the WPS and OIS implementation of merge, Wang PC users can reference variables within the secondary document by name. This method offers the user more flexibility in designing the output document.

Wang PC Advanced WP users can also perform basic math functions. The math routines produce subtotals, totals, and grand totals, compute percentages, and allow verification of previously computed data.

HARDWARE PRE-REQUISITES

1. A Wang PC with 256K of memory.
2. The PC Local Communications Option, PC-PM041, is required for filing to and from OIS and VS systems.

SOFTWARE PRE-REQUISITES

1. Wang PC System Software Version 1.21 or later.
2. Wang PC Advanced WP Document Filing software has been tested with OIS Starter 7.8 and VS Operating System Release 6.11. Earlier releases may also be compatible.

(continued)

WANG PC ADVANCED WORD PROCESSING, VERSION 2.0 (continued)

ALERTS

1. If a document is in the process of being edited, created, or printed, do not remove the document diskette from the drive; doing so may hang the system & damage the document.

2. Do not write-protect a document diskette, since writing to the diskette is necessary for system maintenance. If the diskette is write-protected, and the 'Abort or Retry' message appears on the screen, you can safely remove the write-protect tab and press 'R' to retry. If you press 'A' to abort, the system returns to the Command Processor or the Menu Driver, whichever initiated the WP request.

3. To activate a single-sheet feeder, the user must select Form 1 from the Print Menu, since Advanced WP does not perform a top-of-form action when the Standard form option is chosen.

4. To prevent foreground printing from interrupting a task printing in the background, never initiate a foreground print request until all current print spooling requests have been completed.

5. On the Print Menu, when printing or print spooling a document, make sure that the "Page Length" number is greater than the "Footer Begins on Line" number. Attempting to print a footer beyond the bottom of the page causes the system to hang with a repeating page feed.

6. The Spelling Verifier verifies only document text. It does not verify headers or footers.

7. If an error message appears on the screen when attempting to logon to a VS during a filing operation, you may have:

   . Terminated emulation after a previous operation without logging off. If so, run terminal emulation to logoff before retrying a filing operation.

   . Entered a user ID that uses a logon procedure. If so, retry the filing operation and enter a user ID that is not associated with a logon procedure.

8. If using a switchbox to toggle between OIS and/or VS systems for Document Filing, it is necessary to exit and then re-enter Document Filing each time you switch between the two systems.

9. In order to communicate with an OIS or VS via the Local Communications Option (928 Board), Z80FILE.DAT must be on the root node when running off a Winchester.

(continued)

WANG PC ADVANCED WORD PROCESSING, VERSION 2.0 (continued)

ALERTS (continued)

10. When attempting to copy a WP document containing close to 120 pages or more from an OIS or a VS system to the PC, either the error message "Invalid Page Number" or "Document Damaged" may appear on your screen due to the PC WP limitation of 4,000 characters per page and 120 pages per document. All of the text up to the Wang PC WP limit will be copied successfully. In order to avoid having a long document break at an inconvenient place, divide it into two documents before performing the copy operation.

ORDERING INFORMATION

Wang PC Advanced Word Processing software (model number PC-AS002-2) is available through normal order processing channels at a cost of $500. The software is shipped on three double-sided, dual-density diskettes.

Model Number	Description	Purchase Price
PC-AS002-2	Wang PC Advanced Word Processing (Requires extended memory)	$ 500
UJ-3200	Upgrade from PC-AS002 (standard WP) to PC-AS002-2 (Advanced WP)	100

When upgrading from standard to Advanced Word Processing, customers will be asked to supply their original Purchase Order Number or the Work Order Number and Serial Number of their Wang PC.

INSTALLATION INSTRUCTIONS

To load the Wang PC Word Processing 2.0 software, select Word Processing from the Applications Menu, insert the WP software diskette into the currently selected drive, and press EXEC. To run Word Processing 2.0 from the Command Processor, specify the file name WP.EXE.

PROBLEMS CORRECTED

Not applicable; initial release

KNOWN ANOMALIES

1. If a WP document page ends with a format line with no trailing text and you attempt to include the format line in a hotprint operation, one extraneous character is printed after the text. You can avoid printing the extra character by highlighting the text up to, but not including, the format line.

(continued)

WANG PC ADVANCED WORD PROCESSING, VERSION 2.0 (continued)

KNOWN ANOMALIES (continued)

2. When using the Typewriter option of Special Print Functions, press the CANCEL key if the message "At Bottom Boundary, Please CANCEL" appears. Do not press RETURN, or any extra characters that were typed ahead (before the message appeared) will strikeover the last valid line of text that was printed.

3. If the DW-20 printer is deselected after system start-up, the system hangs. This condition can be corrected by reselecting the printer. If the DW-20 printer is deselected before start-up, the system is not affected.

4. When attempting to copy a document from one Wangwriter-formatted diskette to another, if the message "Document Exists, Press EXEC to Delete, CANCEL to Respecify" appears, do not press EXEC or your document will be damaged. Press CANCEL and perform one of the following steps before you retry the copy operation:
   - Specify a different destination file name if you want to save the existing file.
   - If the existing file is obsolete, delete it using the Delete function.

5. Response time can be degraded when running many terminals (either VS workstations or Wang PCs) from one VS IOP. This may lead to Logon/Logoff problems when trying to access the VS through PC Document Filing. Specifically, Logons may fail or Logoffs may fail, leaving the user in a Logged-On condition.

REFERENCES

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