# CP/M

## INTRODUCTION

CP/M® (Control Program for Microcomputers) is a widely used diskette-based operating system that has become an industry standard for small personal and professional computers. Licenses for CP/M-80, Version 2.2, are now available as options on the Wangwriter, OIS, and Alliance™ 250 product lines. CP/M-80 emulation is optionally available on the Wang Professional Computer (PC).

CP/M provides access to a wide variety of existing application programs as well as several programming languages. The access provided by CP/M to these applications and languages greatly expands the capabilities of the host system. OIS and Alliance System users have the capability of using CP/M in a multiple workstation environment, and of converting CP/M output to word processing documents.

Commercially available applications supported by CP/M include professional productivity tools and other business applications, such as electronic spreadsheets and financial modeling and simulation packages. CP/M also supports commercially available versions of high-level programming languages, such as Pascal, COBOL, PL/1, and FORTRAN.

## CP/M FEATURES AND BENEFITS

CP/M provides the environment that is needed to run numerous pre-written programs or applications. These applications expand the capa-

bilities of your system at a marginal cost.

CP/M also provides access to data processing capabilities and to programming languages for the development of user-written applications. Generally, however, purchased applications are most useful because they are prewritten, tested, and documented tools that users can quickly learn to use in performing job-related tasks. The extensive library of prewritten programs gives users a wide range of choices of applications to fit their specific needs. Many of these application programs are now available in Wang-compatible formats.

CP/M is easy to use. It works in much the same manner on all Wang systems on which it is an option, and is virtually the same as CP/M versions that run on other computers. Users experienced with CP/M in other environments will find it easy to learn on a Wang system.

On Wang OIS and Alliance Systems, CP/M output can be converted for use as a word processing document. For example, text file output from a financial projection can be incorporated into a report with just a few keystrokes, eliminating the need for users to reenter information.

Adding CP/M to your OIS or Alliance System has an additional advantage: CP/M is available simultaneously to multiple users as a menu selection. Through the concept of logical disks and drives,

CP/M simulates the environment of a standalone microcomputer at appropriate workstations. Through a series of menu selections, each user has access to three logical disk drives, each of which can access a logical disk containing CP/M applications. Users do not need to physically mount diskettes in disk drives because CP/M simulates these activities in an interactive environment.

CP/M applications and files are fully transportable among Wang systems that support CP/M. For example, input created for a spreadsheet application on a Wangwriter can be transferred and used as input for the same application on an OIS.

CP/M and selected applications, such as Multiplan™, are available to you directly from Wang. Several major software publishers and distributors have been selected to supply their applications in Wang format on Wang-compatible media directly to Wang system users. Other vendors and customers may elect to take advantage of Wang's conversion facility to assist them in converting existing CP/M software to Wang-compatible media.

## CP/M COMPONENTS

Wang's CP/M option comprises Version 2.2 of the CP/M-80 Operating System. Included in the Wang CP/M option are the following components:

- CP/M commands and utilities. These commands and built-in func-

tions give users control over the location, name, and status of files and directories, as well as provide the interface to the Assembly language facility. Some of the commands included with CP/M are:

DIRECTORY — provides a list of existing files

ERASE — removes files from CP/M disks

PIP — (Peripheral Interchange Program) allows users to move files between diskettes or logical disks in the Alliance/OIS environment

RENAME — allows users to change file names

STAT — allows users to ascertain statistical information about file storage and device assignments

TYPE — allows users to display the contents of files on the terminal

• Utilities supplied by Wang that allow users to convert CP/M text files to OIS and Alliance documents and vice versa.

• Assembly programming language, which includes an assembler and debugger. Sophisticated users can write, edit, test, and run fast and efficient programs in Assembly language.

## CP/M ON THE WANG PROFESSIONAL COMPUTER

CP/M-80 emulation is available on the Wang Professional Computer (PC) as a combination hardware/software option. This capability is added to the Wang PC by inserting a CP/M board and installing the associated emulation software. The Wang PC is a single-user system; CP/M provides an additional operating system environment to the MS-DOS™ Operating System provided with the Wang PC. CP/M files developed on the Wang PC are compatible with, and can be used on, Wangwriter, OIS, and Alliance Systems with the appropriate hardware and software.

## CP/M ON THE WANGWRITER

Adding CP/M software to a Wangwriter significantly expands its word processing capabilities by supplying the nonresident support environment required by many data processing applications. CP/M files developed on the Wangwriter are compatible with, and can be used on PC, OIS, and Alliance Systems with the appropriate hardware and software.

## CP/M ON OIS AND ALLIANCE 250

Adding CP/M to an OIS or Alliance 250 System allows that system to combine word processing and data processing, and to provide the following capabilities:

• CP/M in a multiterminal environment. Several users can access individual versions of CP/M simultaneously for developing or using applications.

• Logical disks and drives. Each user has access to three logical disk drives, each of which can have a logical disk attached, thus simulating the standalone microcomputer environment at the workstation.

• CP/M as a menu pick. Users need not load and unload diskettes each time they use the CP/M option.

• Direct integration of CP/M-created output text files into word processing documents, such as formal reports and proposals.

## CONFIGURATION INFORMATION

### Disk Space Requirements

The resident master copy of the Wang CP/M System requires 500K bytes of disk storage on the OIS and Alliance, 135K bytes on the Wangwriter, and 15K bytes on the Wang PC. Individual user applications will require varying amounts of

additional disk space, depending on the specific application and how it is configured.

## Professional Computer

All models of the Wang Professional Computer can be configured to support CP/M-80 emulation by adding the CP/M hardware/software option.

## Wangwriter

CP/M can run on any Wangwriter Model 5503A, 5503D, 5504S or 5504D. 64K of memory is available to the user. Wangwriter Models 5503 must all be upgraded to Model 5503A before they can support CP/M-80. Note that some CP/M applications may require dual-diskette drives.

## OIS and Alliance

CP/M is supported on all OIS Systems (except 125/130), and on all Alliance 250-1 and 250-2 Systems. Additionally, CP/M requires one of the following workstations, containing a minimum 64K of resident memory: 5536-4, AWS-4 (Archiving), 5556C (Remote WangNet), Ergo-2 Series, 5300 Series, or 6300 Series.

*Standard Warranty Applies*

# CONFIGURATION CHART
# CP/M HOST SYSTEM SPECIFICATIONS

|  | Alliance | OIS | Wang PC | Wangwriter |
|---|---|---|---|---|
| **Models** | All 250 models | 105-1<br>115-2,-3,-4<br>130A,B,C,D,E<br>All 140 and<br>145 models | All Wang PC models | 5503A, 5503D<br>5504S, 5504D |
| **Number of Users** | Multiple | Multiple | Single | Single |
| **Diskette Size** | 8-inch<br>hard-sectored<br>Wang format | 8-inch<br>hard-sectored<br>Wang format | 5 1/4-inch<br>Wang PC<br>format | 5 1/4-inch<br>Wang CP/M<br>format |
| **Disk Space** | 500K bytes | 500K bytes | 15K bytes | 135K bytes |
| **System Software Level** | 2.0<br>(or above) | 7.0<br>(or above) | MS-DOS 2.0<br>(or above) | All |

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