CS

Multiuser BASIC-2 Operating System
Release 3.1
Customer Software Release Notice

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WANG

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CONTENTS

PREFACE

PREFACE

This customer software release notice describes the changes and
features of the Wang Multiuser BASIC-2 Operating System. This notice
highlights changes made to the operating system. A full discussion of
each enhancement can be found in the updated *Multiuser BASIC-2
Language Reference Manual* (700-4080) and the *BASIC-2 Utilities
Reference Manual* (700-6855).

OVERVIEW

The Wang Multiuser BASIC-2 Operating System is a high-level
programming language designed for interactive programming and ease of
use. Multiuser BASIC-2 features many extensions and enhancements to
facilitate the tasks of writing, documenting, and debugging programs
and to provide flexible language capabilities for a wide range of
applications.

Release 3.1 of the Multiuser BASIC-2 Operating System is a general
release. This release provides added user functionality as well as
corrections to previously reported problems.

RELEASE INFORMATION

Release 3.1 is available on the following media:

Part Number	Type		Comment
195-0049-3 (two diskettes)	8 inch	SSSD	2270A diskette
195-0049-5 (one diskette)	8 inch	DSDD	2200LVP, 2200SVP diskette
195-0049-9 (two diskettes)	5 1/4 inch	DSDD	2275, DS diskette

REQUIREMENTS

Release 3.1 requires at least 28K of control memory.

CHANGES TO THE SYSTEM PLATTERS

The system platters include the operating system and the BASIC-2
language processor, the system diagnostics, and the system utilities.

With Release 3.1, the following system files are revised:

File	Description
@MOVEFIL	Move File Utility
@BACKUP	Disk Utility
@FORMAT	Format Disk Utility
@MVP	Operating System and BASIC-2 Language Processor
@MXE0	MXE Terminal Multiplexer Firmware
@GENPART	Partition Generation Utility
@@	System Menu File
@PSTAT	Partition Status Utility
@INSTALL	System Installation Utility
@DM50/V0	DM50/300 Printer Driver Table
@PM016V3	PM016 Printer Driver Table
@PM017V3	PM017 Printer Driver Table
@LASRJV0	Laserjet Printer Driver Table
@\	Field Service Diagnostic Menu
@A	CPU Instruction Exerciser
@C	Data Memory Diagnostics

The following are brief summaries of each modification:

* The Move File Utility (@MOVEFIL) has been updated to correct
  reported problems.

* The Backup Disk Utility (@BACKUP) has been updated to correct
  reported problems.

* The Format Disk Utility (@FORMAT) has been updated to correct
  reported problems.

* The operating system and BASIC-2 Language Processor file (@MVP)
  now includes added user functionality.

* The MXE Terminal Multiplexer Firmware file (@MXE0) has been
  updated to correct reported problems.

* The Partition Generator Utility (@GENPART), the System Menu File
  (@@), and the partition status utility (@PSTAT) have been modified
  to work with larger memory configurations.

* The Operating System Installation Utility (@INSTALL) has been
  updated to include new and changed printer driver table names and
  correct reported problems.

- The printer driver table @DM50/V0 has been added to support the DM50/300 printer.

- The printer driver table @PM016V2 has been replaced by @PM016V3.

- The printer driver table @PM017V2 has been replaced by @PM017V3.

- The printer driver table @LCS15V0 has been replaced by @LASRJV0.

- The Diagnostics Programs @\, @A, and @C have been modified to work with larger memory configurations.

ENHANCEMENTS

The following summary highlights added user functionality provided in Release 3.1. More detailed information may be found in the *Multiuser BASIC-2 Language Reference Manual* update pages.

Expanded Memory

- Release 3.1 has been modified to support the new 1, 2, 4 and 8 MB CPU options. The changes allow for up to 1 MB to be allocated for program partitions (one partition at 61 KB and 15 partitions at 56 KB). The remaining memory is allocated to the RAMDISK, which was introduced in Release 3.0.

Disk Operations

- Release 3.1 of Multiuser BASIC-2 increases the file numbers (file#) allowed to a maximum of 256 (#0 - #255). To use file numbers greater than 15, the user must include a SELECT #n statement in the BASIC-2 program (where n is an integer specifying the largest file# that will be used). During resolution phase, the system determines the largest file# specified and allocates memory from the user partition for each file# from #16 to the largest file#. This reduces the size of the user partition. Each file# is allocated 8 bytes of memory. When a CLEAR or LOAD RUN is executed, the memory allocated for file numbers is released back to the partition.

- A W option has been added to the LIST DC T statement to display as many filenames as possible on the screen. When the W option is invoked, only the names of the files on the specified disk are displayed across the display or printer line. No index size information or detailed file information (i.e., start and end sector) is provided. The W option may be used with the file name and file type mask options.

Program Entry and Debugging

- Due to the increase in the number of available device table entries from 16 to a maximum of 256, the information displayed by LIST DT has been modified. Only used device table entries are displayed; any unused device table entries are not displayed.

- Another method for listing defined variables is now included with the LIST COM and LIST DIM statements. The LIST COM/DIM statement lists both the common and uncommon variables, and their defined length and values in their order of definition. LIST COM/DIM is helpful when using the COM CLEAR statement to reposition the common variable pointer to remove variables when succeeding programs are loaded.

Printer Drivers

- The Generalized Printer Driver has been enhanced to better support printers that expect ASCII instead of hexadecimal escape sequences. Further optimization of the printer driver logic has improved output performance for devices not directed through a printer driver. @LASRJVO is a new printer driver table for the LDP8 and LCS15 printers. @DM50/VO is a new printer driver table for the DM50/300 printer.

ANOMALIES

Corrected Anomalies

- RESAVE facilitates updating program files by combining the SCRATCH and SAVE statements. In Release 3.1, the existing file is marked as SCRATCHed prior to saving the program. This approach duplicates the results of a SCRATCH and a SAVE. If the new file requires more sectors than the previous file, the old file is marked as SCRATCHed and an error D81 (File Full) is generated.

  Release 3.0 generated the appropriate D81 error message but did not mark the file as SCRATCHed.

- RENAME changes the name of a file in both the catalog index and the program header block stored with the file. Release 3.1 allows the renaming of SCRATCHed files.

- In Release 3.0, the MOVE statement was enhanced to allow the user to specify the size of the index and catalog area to be created on the destination platter. However, no check was made to determine if the MOVE would exceed user-specified limits. In Release 3.1, the MOVE statement now generates the appropriate error message if user-specified limits are exceeded.

- In Release 3.0, the 2200T MOVE FR statement did not properly move the catalog from the source to the destination platter. The statement has been corrected in Release 3.1.

- In Release 3.0, the DATA LOAD BA/BM statements did not properly handle their syntax-checking logic; for example

    DATA LOAD B AT (space between the B and the A)

  went uncorrected. Release 3.1 has been modified to check the syntax of the DATA LOAD BA/BM statements.

- In Release 3.0, the IF THEN ELSE statement did not work properly in Immediate Mode. This problem has been corrected in Release 3.1.

- In Release 3.0, entering a program line that was too long was not properly flagged with an error message. This has been corrected in Release 3.1.

- $BREAK! put a partition to sleep permanently and it could not be awakened by issuing $ALERT from another partition. This has been changed to allow $ALERT to wake up a partition as in earlier releases.

- In Release 3.0, certain $GIO sequences would hog the disk and not release it at the end of the sequence. In Release 3.1, the $GIO sequences now release the disk.

- Release 3.0 inadvertently slowed output to the null device, /000. This has been corrected in Release 3.1.

- Executing a COM CLEAR with a variable name when selected to a global partition caused the system to hang. This has been corrected.

- The @MOVEFIL utility had two problems corrected:

    - When writing to an IBM 3741 diskette format, an invalid trailer record was created. This no longer occurs.

    - When an @SPAN file was created with exactly two free sectors, a program error occurred. This has been corrected in Release 3.1.

- @FORMAT displayed an inaccurate error message when attempting to format a device that was being accessed by another partition. This error message has been corrected.

- @BACKUP displayed an inaccurate error message if an attempt was made to backup to an unSCRATCHed platter. This has been corrected.

- @INSTALL displayed an inaccurate error message if an attempt was made to install the operating system to an unSCRATCHed platter. This has been corrected.

- The @MXEO microcode has been modified to correct two problems:

  - When sending 5- or 6-bit data in TC mode, if a character shifted relative to the previous character was sent to the MXE, the shift code was transmitted but the character itself waited until another character was sent to the MXE. Now all characters are sent to the MXE.

  - When using the 2436WP terminal, under certain circumstances the print stream to the local printer (204) would stop and not resume until the 2200 was rebooted. This problem has been corrected in Release 3.1.

Known Anomalies

- Syntax checking for the COPY and MOVE commands is not properly handled. The following syntax should be flagged with an error:

  COPY #1,
  MOVE #1,

  Since the destination platter is not specified, an FR parameter is assumed. The operation is performed from the fixed platter to the removable platter which is accessible by file#.

MISCELLANEOUS

Unsupported Printer Functions

PM017 Printer -- The following functions are not supported by the PM017 printer:

- 5-Pitch
- Select Paper Tray
- Clear Platen
- Select/Deselect Printer
- Reverse Line Feed

15- and 16.5-pitch both produce 16-pitch output.

DM50/300 Printer -- The following functions are not supported by the DM50/300 printer:

- 5-Pitch
- Select Paper Tray
- Clear Platen
- Select/Deselect Printer
- Reverse Line Feed

The vertical tab and line feed functions are supported, but they generate a carriage return during processing. 15- and 16.5-pitch both produce 16-pitch output.

LCS15 Printer -- The following functions are not supported by the LCS15 printer using the @LASRJV0 printer driver:

- 5-Pitch
- Clear Buffer
- Clear Platen
- Select/Deselect Printer
- Reverse Line Feed

15- and 16.5-pitch both produce 15-pitch output.

LDP-8 Printer -- The following functions are not supported by the LDP-8 printer using the @LASRJV0 printer driver:

- 5-Pitch
- Select Paper Tray
- Clear Buffer
- Clear Platen
- Select/Deselect Printer
- Reverse Line Feed

12-, 15- and 16.5-pitch all produce 15-pitch output.

PM016 Printer -- The following functions are not supported by the PM016 printer:

- 5-Pitch
- Select Paper Tray
- Select Font #2
- Execute Built-in Diagnostics
- Clear Platen
- Select/Deselect Printer
- Reverse Line Feed

15- and 16.5-pitch both produce 15.5-pitch output.

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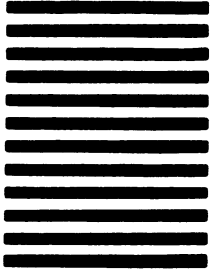
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