

Microsoft DOS 5.0 Hardware Compatibility Test
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1. INSTRUCTIONS

The *Microsoft DOS 5.0 Hardware Compatibility Test* (HCT) is a general test for verifying the compatibility between hardware environments and DOS 5.0.

The following components make up the test kit:

- * The HCT Test Instructions

the desired results.

- * The HCT Checklists

- * The HCT Problem Report Form

the checklist, will be addressed by Microsoft.

The following describes the steps for completing the Hardware Compatibility Test.

FOLLOW THESE STEPS:

1. Make and distribute the following to your testing staff:

- * copies of the HCT Test Instructions and the HCT Floppy Disk
- * copies of the HCT Checklist for every configuration you intend to test
- * copies of the HCT Problem Report Form

2. For each configuration, install DOS 5.0, install the HCT tests, complete each test as described in the HCT Test Instructions.

3. Record the results of each test in the HCT Checklist used for that configuration:

- * If the test results correspond to the output described in the HCT Test Instructions, record a PASS status
- * If the test results do not correspond to the output described in the HCT Test, record a FAIL status
- * If a test is not run because it did not apply on the current configuration, record a N/A status

4. When a test status is FAIL:

- * Make a copy of the HCT Problem Report Form, and fill it in completely describing the test, configuration and results
- * Submit a copy of the completed HCT Problem Report Form to Microsoft DOS Testing via fax or mail and/or submit an electronic copy of the completed HCT Problem Report Form as a Service Request via OnLine

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Note: It is not necessary to further debug a problem when one is encountered while performing the HCT test. It is much more efficient to promptly report the failure to Microsoft and continue on with the remaining HCT tests. In many cases the problem may have already been reported or a Microsoft engineer may be able to determine the root of the problem from the bug description. You will be notified of the outcome of your report.

5. When all the tests have been completed on a configuration, submit the following to Microsoft DOS Testing:
 - * A copy of the completed HCT Checklist for the configuration
 - * Additional copies of all HCT Problem Report Forms referenced in the HCT Checklist
6. Be prepared to submit additional information and/or hardware to Microsoft DOS Testing for debugging purposes

All materials submitted to Microsoft DOS Testing should faxed or mailed directly to:

Microsoft DOS Testing
Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399
Fax: (206) 883-8101

2. OVERVIEW

DOS Hardware Testing contains two components, the DOS Installation and the DOS Hardware Compatibility Test.

DOS must be installed using the DOS Install program. The installation uses FDISK to create hard disk partitions, formats the hard disk, and copies the necessary files for the configuration requested. The DOS Install must perform all of these functions to determine hardware compatibility. Therefore, the hard disk must be completely erased and partitions removed.

For machines with greater than 1 megabyte of memory, parts of DOS 5.0 are moved into high memory during the boot sequence. (High memory, or extended memory, is the area of memory above the 1 megabyte boundary. Having DOS in high memory frees space in conventional memory, memory less than 640 kilobytes.) Control whether DOS is located in high or in conventional memory in the **CONFIG.SYS** file, reading during the boot sequence.

The CONFIG.SYS entry:

DOS=HIGH

moves DOS into high memory. This option is automatically put into the CONFIG.SYS file by the DOS Install if the machine DOS is installed on has extended memory. The CONFIG.SYS entry may be changed to:

DOS=LOW

in order to keep DOS in conventional memory. The machine must be re-booted for the change in CONFIG.SYS to take effect.

Once the DOS Install successfully installs DOS, each of the test programs in the DOS HCT must be run with DOS in both high and conventional memory.

The hardware compatibility of a particular configuration with DOS 5.0 is determined by the success of the installation of DOS 5.0 using the DOS Install program, the results from running the HCT Tests with DOS in high memory, and the results from running the HCT Tests with DOS in conventional memory. Any results of tests that differ from what is expected should be recorded on the HCT Problem Form.

A test checklist is provided to help technicians keep track of the tests to perform and their results. The HCT Checklist is located at the end of the document. Also included is the HCT Problem Form which should be copied, filled out, and appended to the HCT Checklist each time a problem is encountered.

2.1 Glossary of Terms

This glossary lists some terms which are used within the DOS 5.0 Hardware Compatibility test as well as in the DOS environment in general. In providing these terms the goal is to enable the tester to better understand the tests being performed and perhaps generate further testing ideas.

Enhanced Keyboard - the 101-key keyboard. The keyboard that includes cursor keys separate from the keys on the numeric keypad, function keys F11 and F12, and two CTRL and two ALT keys.

Extended Memory - Memory in 80286 and 80386 based machines which is located above the 1MB address boundary.

HCT - The DOS 5.0 Hardware Compatibility Test.

HIMEM.SYS - HIMEM.SYS is an extended memory manager device driver which facilitates the execution of code in extended memory (memory above 1 Megabyte). HIMEM.SYS provides a new programming interface (XMS) which is standard in the MS-DOS environment for accessing extended memory.

OEM - an acronym for Original Equipment Manufacturer. In this document, OEM indicates a manufacturer of hardware that DOS 5.0 executes on.

Test Machine - the machine that you are using to run the DOS 5.0 Hardware Compatibility Test.

XMS - an acronym for eXtended Memory Specification, an interface for accessing extended memory, memory above the 1 megabyte boundary.

XMS Manager - a memory manager that handles allocation and deallocation of extended memory. HIMEM.SYS is the XMS Manager that DOS uses.

3. HCT TEST INSTALLATION

TEST ONE: DOS 5.0 Installation

Objective:

Test whether DOS 5.0 can be successfully installed on a OEM's test machine.

Procedure:

Erase Hard Disk

The hard disk on the test machine must be completely erased and all partitions removed. The HCT requires that the OEM Install program FDISK and FORMAT your hard disk.

Install DOS

Boot from the OEM Install Disk and follow the instructions on the screen to install DOS 5.0 on your hard disk.

- At the first menu, select DISK TYPE to install DOS 5.0 to hard disk.
- At the second menu, "Installation Options" , the Shell and MS-Mouse must be selected if the test machine has a mouse installed. The DOS Shell is used to test mouse operations.
-

The OEM Install uses FDISK to create partitions on your hard disk, formats your hard disk, and installs DOS 5.0. When the machine reboots, DOS 5.0 automatically installs the DOS shell. Exit the DOS Shell and get to a command prompt by pressing ALT-F4.

Install the DOS HCT Tests

Put the DOS HCT floppy disk in the disk drive. Copy the DOS HCT files into the \DOSHCT directory with the following command.

```
XCOPY A:\DOSHCT C:\DOSHCT
```

where drive A: is the floppy drive for the DOS HCT floppy and drive C: is the hard disk where DOS is installed.

answer "d" to the "(F = file, D =directory)?" prompt. Change the current directory on your hard disk to the newly-created \DOSHCT directory with the following command.

```
CD \DOSHCT
```

Results:

The installation program should complete successfully with the menu display: "The

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installation program is now complete." The test machine should be bootable from its own hard disk. The DOS HCT files should be installed at the \DOSHCT directory.

4. HCT TEST INSTRUCTIONS

The following tests must be run with DOS running in conventional memory (DOS=low) and DOS running in extended memory (DOS=high). The DOS 5.0 Installation program automatically installs DOS in high memory with the **DOS=HIGH** command in the **CONFIG.SYS** file, if the test machine has extended memory. To test DOS in low memory, the **CONFIG.SYS** file must be changed so the above entry reads **DOS=LOW** and the machine must be rebooted.

HCT Checklist Configuration Information

Use the **ver** command to determine the version of DOS you are running. Use the **type** command to display the AUTOEXEC.BAT and CONFIG.SYS files. Record this and the hardware configuration information on the HCT Checklist.

TEST TWO: Floppy FORMAT Test

Objective:

Test whether FORMAT works on the vendor's floppy drives. The **FMT_TEST** batch file provides for testing of all floppy drive types.

Estimated Time:

15 minutes.

Procedure:

Run **FMT_TEST** specifying drive letters for 5.25 inch drives and 3.5 inch drives. If a disk size is not supported, indicate "-" for the drive letter.

FMT_TEST [/?] 5.25drive: 3.5drive:

- /?* displays help information on running this test script.
- 5.25drive* the drive letter for a floppy drive that uses 5.25 inch disks. Use "-" if the test machine does not support 5.25 inch disks.
- 3.5drive* the drive letter for a floppy drive that uses 3.5 inch disks. Use "-" if the test machine does not support 3.5 inch disks.

The test script asks whether each format configuration is supported. For each "y" response, **FMT_TEST** will start the **FORMAT** program with the proper drive and type. **FORMAT** then asks you to press **ENTER** when ready. After formatting, **FORMAT** may ask for a drive label. When **FORMAT** asks whether to **FORMAT** another disk, respond "n". **FMT_TEST** will move on to the next disk type.

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The following FORMAT options are tested.

FORMAT /s /f:160
160KB 5.25" floppy disk
FORMAT /s /f:180
180KB 5.25" floppy disk
FORMAT /s /f:320
320KB 5.25" floppy disk
FORMAT /s /f:360
360KB 5.25" floppy disk, must be supported if 5.25" drives are used
FORMAT /s /f:1.2M
1.2MB 5.25" floppy disk
FORMAT /s /f:720
720KB 3.5" floppy disk, must be supported if 3.5" drives are used
FORMAT /s /f:1.44M
1.44MB 3.5" floppy disk
FORMAT /s /F:2.88M
2.88MB 3.5" floppy disk

Results:

FORMAT should successfully format the floppy disk types supported by the test machine. At minimum, 360 kilobyte floppy disks must be supported for 5.25 inch drives and 720 kilobyte floppy disks must be supported for 3.5 inch drives.

TEST THREE: Disk Test*Objective:*

Verify the operation of the INT 13 Disk Access Calls not used during the FORMAT process in the OEM install.

Estimated Time:

5 minutes.

Procedure:

The user starts the DISKTEST program with the following command line for all physical drives installed.

```
DISKTEST [/?] drive [/AT]
/?          displays help information on running this test program
drive       indicates the drive letter to test (specified with a colon, ex: C:), or
            physical drive number (see below)
/AT         indicates the test machine is AT-compatible or better
```

DISKTEST assumes the A: and B: are floppy drives and C: and drive letters thereafter are hard drives. If the test machine does not support this standard, the user must specify the physical drive number in hex in the *drive* parameter. The first floppy disk is drive 0, the second floppy drive is drive 1, etc.. The first hard disk is drive 80, the second hard drive is drive 81, etc.

When testing a floppy drive, DISKTEST prompts the user to open and close the floppy drive door without changing the floppy disk to test the disk change detection.

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

- Get Drive Parameters, INT 13h Function 08h, is supported on floppy drives and may or may not be supported on hard drives. The number of sectors, cylinders, heads, and drives attached to this adapter should be correct for your machine.
- Reset Disk, INT 13h Function 00h, should always return "OK".
- Read Track, INT 13h Function 02h, should read and dump the first sector of the disk specified. For a hard disk, the last two bytes are 55AA.

For a bootable floppy disk, the first three bytes should be
EB xx 90
or

and the last two bytes are 55AA.

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TEST FOUR: Display Mode Test

Objective:

Test all video modes available for the display installed. Verify all available colors and attributes can be displayed in each mode.

Estimated Time:

5 minutes.

Procedure:

The user starts the MODETEST program with the following command line for the display installed.

```
MODETEST [/?] [/cga | /ega | /vga]
/?      displays help information on running this test program
/cga    indicates the display installed is a color graphics adapter (default)
/ega    indicates the display installed is a enhanced graphics adapter
/vga    indicates the display installed is a video graphics adapter
```

MODETEST describes each video mode and prompts the user to press a key before switching video modes. The user must press a key to switch to the next mode.

Results:

The user should verify that each color of those available is displayed. In text modes, the user should verify that the number of rows and columns is correct.

TEST FIVE: QBASIC Testing

Objective:

Test all video modes, screen swapping, and user interface display of QBASIC.

Estimated Time:

15 minutes.

Test 5.1 * Verify Screen Modes

Procedure:

Start the QBASIC screen mode compatibility test with the following command and follow the instructions on the screen.

QBASIC COMPAT

When the tests are completed, the file COMPAT1.BAS appears as the main file in the QBASIC editor. Exit QBASIC by press ALT-F to select the file menu, then X to Exit. The file RESULTS.TXT contains a summary of the number of pages supported in each video mode. Use **type**, **edlin**, or **edit** to examine the file and verify the results.

Results:

Each video mode used by QBASIC is displayed. RESULTS.TXT should contain the proper pages for the display installed.

Test 5.2 * Verify Screen Swapping

Procedure:

Start the QBASIC screen swapping test with the following command and follow the instructions on the screen. Exit QBASIC by press ALT-F to select the file menu, then X to Exit.

QBASIC SCREEN

Results:

QBASIC swaps screens in various display modes correctly as described.

Test 5.3 * Monochrome Menu/Help Screens

Procedure:

Start the QBASIC monochrome test with the following command and follow the instructions on the screen. Exit QBASIC by press ALT-F to select the file menu, then X to Exit.

QBASIC /B TESTB.BAS

Results:

QBASIC menus, help screens, and highlighted items are visible as described.

Test 5.4 * High Resolution Menu/Help Screens

Procedure:

Start the QBASIC hi-res test with the following command and follow the instructions on the screen. Exit QBASIC by press ALT-F to select the file menu, then X to Exit.

QBASIC /H TESTH.BAS

Results:

QBASIC menus, help screens, and highlighted items are visible as described.

Test 5.5 * No-Highlighting Menu/Help Screens

Procedure:

Start the QBASIC no-highlighting test with the following command and follow the instructions on the screen. Exit QBASIC by press ALT-F to select the file menu, then X to Exit.

QBASIC /NOHI TESTNOHI.BAS

Results:

QBASIC menus, help screens, and highlighted items are visible as described.

TEST SIX: Printer/Serial Port Test*Objective:*

Confirm that DOS can interface with the printer and serial ports of the test machine.

Test 6.1 * Printer Test - PRINTER

Procedure:

The PRINTER test program should be run for each printer port installed on the test machine. The user starts the PRINTER program with the following command.

```
PRINTER [/?] printer
/?          displays help information on running this test program
printer     indicates the printer port to use (LPT1, LPT2, or LPT3)
```

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

The PRINTER test attempts to initialize the printer port and write a series of characters to it using BIOS INT 17h. If no printer is attached, the test program responds "printer timed out" during initialization. This error is expected if a printer is not attached. Other errors may occur during printer output calls if a printer is not attached.

Test 6.2 * Communications Port Test - COMTEST

Procedure:

The COMTEST test program should be run for each serial port installed on the test machine. The user starts the COMTEST program with the following command.

```
COMTEST [/?] port
/?          displays help information on running this test program
port        indicates the serial port to use (COM1, COM2, COM3, or COM4).
```

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

The COMTEST test initializes the COM port for all possible configuration settings, and attempts to send and received data using the COM port. With no hardware attached to the COM port, the test program responds "COM port timed out" when trying to send or receive. This error is expected if a peripheral is not installed. After a send attempt, the "clear-to-send signal toggled" message should appear. After a receive attempt, the "data-set ready toggled" and "clear-to-send signal toggled" messages should appear.

TEST SEVEN: System, Keyboard, and Timer BIOS Test*Objective:*

Verify correct operation of commonly used calls of the machine's ROM BIOS.

Test 7.1 * Get System Information - SYSINFO

Objective:

The SYSINFO test program makes certain BIOS calls to determine information about the test machine and displays the information for the user to verify.

Procedure:

The user starts the SYSINFO program with the following command line. If the test machine is AT-compatible or higher level, the user should call SYSINFO with the /AT flag.

SYSINFO [/?] [/AT]

/? *displays help information on running this test program.*

/AT *indicates test machine is an AT-compatible or higher level machine*

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

- Get system environment, INT 15h Function C0h, may or may not be supported. If this call is supported, then the information reflected on machine model and BIOS revision level should be correct. If it is not supported, SYSINFO should indicate that the carry flag was set on return from this BIOS call.
- Get conventional memory size, INT 12h, should return the amount of conventional memory available. The SYSINFO program uses approximately 15K during execution. The amount of conventional memory available should be verified with the DOS **mem** command.
- Get extended memory size, INT 15h Function 88h, should indicate if no extended memory is installed. If extended memory is installed, it may or may not be indicated with this call depending on whether an XMS driver such as HIMEM.SYS is installed. HIMEM.SYS uses all of extended memory, which causes this call to return "no extended memory available". SYSINFO should indicate the presence of an XMS driver. The amount of extended memory available should be verified with the DOS **mem** command.
- Get equipment configuration, INT 11h, should return the correct hardware information and default video mode for the test machine. The number of printer ports may indicate three logical ports for a single printer port.

Test 7.2 * Keyboard Test - KEYBOARD

Objective:

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The KEYBOARD test program tests the mapping of the keyboard keys by asking the user to type each key and key-combination (control, alternate, shift) recognized by the BIOS. KEYBOARD also verifies control-C and control-break are captured in event handlers.

Estimated Time:
5 minutes.

Procedure:

The user starts the KEYBOARD program with the below command line and presses the keys as directed by the program. To provide for typing errors, KEYBOARD asks for a key three times before an error is marked as permanent. All permanent errors should be recorded on the HCT Problem Form. If an "enhanced keyboard" is used (separate cursor keys and numeric keypad, F11 and F12 included), the user should call KEYBOARD with the /e flag.

```
KEYBOARD [/?] [/e]
  /?      displays help information on running this test program.
  /e      indicates test machine has an enhanced keyboard
```

Results:

After each key asked for is correctly pressed, KEYBOARD indicates "OK". If a wrong key is pressed, KEYBOARD asks for the correct key three times before indicating a permanent error. When KEYBOARD asks for control-C and control-break, it should reply that these keys were correctly captured in an event handler.

Test 7.3 * Time and Date Verification - TIMETEST

Objective:

The TIMETEST test program verifies that DOS can set the date and time on the test machine. TIMETEST sets the date and time appropriately and confirms that minutes increment at the rollover of the seconds, hours increment at the rollover of the minutes, days increment at the rollover of the hour, and months and years increment at the proper time.

Procedure:

The user starts the TIMETEST program with the following command line.

```
TIMETEST [/?]
  /?      displays help information on running this test program.
```

TIMETEST alters the current date and time used by DOS. The user must reset the date and time after TIMETEST terminates with the DOS **date** and **time** commands.

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

TIMETEST sets the date and time, waits to allow for rollover, and gets the current date and time to confirm rollover. At each step, the current date and time and verification of rollover are displayed. If an error is indicated by TIMETEST, the user should attempt to recreate the error using the DOS **date** and **time** commands.

TEST EIGHT: Advanced Function Tests*Objective:*

Verify that advanced operations of the 80286, 80386, and 80486 processors are handled correctly. Test the A20 line used for extended memory management and confirm that DOS queries respond correctly. Tests the BIOS initialization of the segment registers in real mode (including FS and GS) and confirms each segment register can access a full 64K of memory.

Test 8.1 * A20 line toggle test - A20TEST

Procedure:

The XMS Manager HIMEM.SYS should be installed for this test. (The installation program should automatically configure your system properly with HIMEM.SYS if the test machine has extended memory.) The user starts the A20TEST program with the following command.

```
A20TEST [/?]
    /?      displays help information on running this test program
```

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

The A20TEST program confirms that memory addresses wrap properly when the A20 line is disabled and do not wrap when the A20 line is enabled.

Test 8.2 * eXtended Memory Test - XMSTEST

Estimated Time:

20 minutes.

Procedure:

The XMS Manager HIMEM.SYS should be installed for this test. (See the installation instructions for configuring your system.) The user starts the XMSTEST program with the following command.

```
XMSTEST [/?]
    /?      displays help information on running this test program
```

Results:

Are displayed on the screen, or may be piped into a file or to a printer.

The XMSTEST program allocates all available extended memory, attempts to move blocks of memory between conventional and extended memory, and confirms the correct moving of memory. After each block is moved, XMSTEST responds "OK".

Test 8.3 * Protect Mode Test - PROTECT

Procedure:

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This test should be used only if the test machine is based on the 386 or 486 processor. The user starts the PROTECT program with the following command.

PROTECT [/?]

/? displays help information on running this test program

Results:

Are displayed on the screen only.

The PROTECT program allocates a 64K block of memory and attempts to write to the entire 64K using the DS, ES, FS, and GS segment registers. If an incompatibility problem exists with one of these registers the program may display the following error

error in register buffer writing at index offset.

where *register* is either DS, ES, FS, or GS and *offset* is a number between 0 and 65535. Also, an incompatibility problem may cause the program to hang after the message

program will hang here if the machine is incompatible...

TEST NINE: DOS Shell

Objective:

Test display and mouse operation with an application that is video-intensive and can be mouse driven.

Estimated Time:

15 minutes.

Procedure:

1. Start the DOS Shell with the DOSSHELL command.
2. Double-click on the File Manager icon (for this and the following commands, do not use the keyboard unless explicitly specified. Clicking is performed with the **left** mouse button.)
3. Pull down the Tree menu and click on the Expand All command.
4. Verify the file structure shown in the left window is a correct representation of the current drive.
5. Click on the \DOSHTC subdirectory so that files of that directory are shown in the right window.
6. Pull down the File menu and click on the Select All command. Verify that all files of the \DOSHTC directory are highlighted in the right window.
7. Pull down the Options menu and click on the File Options command. Change so the File Manager does not "Confirm on Delete". Click on the OK button.
8. Pull down the File menu and click on the Delete command. Click on the OK button. The file list on the left window should indicate "No files in selected directory".
9. Pull down on the Arrange menu and click on the Multiple File List command.
10. Insert the DOS HCT disk into a floppy drive. Click on the appropriate drive on one of the file lists so that the hard disk is displayed in one list and the DOS HCT floppy disk is displayed in another.
11. Click on the \DOSHTC subdirectory of the floppy drive so that files of that directory are shown in the right window.
12. Pull down the File menu and click on the Select All command. Verify that all files of the floppy DOSHTC directory are highlighted in the right window.
13. Click on the DOSHTC subdirectory of the hard drive.
14. Pull down the File menu and click on the Copy command. Click on the OK button. Verify that the file list for the hard disk (left window) contains the DOS HCT files. The DOS HCT files should be restored in the DOSHTC directory on the hard disk.
15. Pull down the File menu and click on the Exit command. Pull down the Program menu and click on the Exit command.
16. Start the DOS Shell with the DOSSHELL /SWAP command. (This allows for left-handed use of the mouse by enabling the right mouse button.)
17. Double-click on the File Manager icon (for this and the following commands, do not use the keyboard unless explicitly specified. Clicking is performed with the **right** mouse button.)

18. Pull down the Tree menu and click on the Expand All command.
19. Verify the file structure shown in the left window is a correct representation of the current drive.
20. Click on the \DOSHTC subdirectory so that files of that directory are shown in the right window.
21. Pull down the File menu and click on the Select All command. Verify that all files of the \DOSHTC directory are highlighted in the right window.
22. Pull down the Options menu and click on the File Options command. Change so the File Manager does not "Confirm on Delete". Click on the OK button.
23. Pull down the File menu and click on the Delete command. Click on the OK button. The file list on the left window should indicate "No files in selected directory".
24. Pull down on the Arrange menu and click on the Multiple File List command.
25. Insert the DOS HCT disk into a floppy drive. Click on the appropriate drive on one of the file lists so that the hard disk is displayed in one list and the DOS HCT floppy disk is displayed in another.
26. Click on the \DOSHTC subdirectory of the floppy drive so that files of that directory are shown in the right window.
27. Pull down the File menu and click on the Select All command. Verify that all files of the floppy DOSHTC directory are highlighted in the right window.
28. Click on the DOSHTC subdirectory of the hard drive.
29. Pull down the File menu and click on the Copy command. Click on the OK button. Verify that the file list for the hard disk (left window) contains the DOS HCT files. The DOS HCT files should be restored in the DOSHTC directory on the hard disk.
30. Pull down the File menu and click on the Exit command. Pull down the Program menu and click on the Exit command.

Results:

While executing the steps noted above, the files in the \DOSHTC subdirectory should be deleted and then restored from the floppy disk. If the all procedure steps specified above function correctly, the files used in the DOS HCT test should have been restored intact.

5. FILES PROVIDED WITH THE HARDWARE COMPATIBILITY TEST

The following files are provided on the DOS HCT distribution disks.

A20TEST.EXE - a DOS program which tests the toggling of the A20 line, which is used to access extended memory.

COMPAT.BAS - a QBASIC program that switches to all video pages for the display installed.

COMPAT1.BAT - a chained file that is part of the COMPAT.BAS test.

COMTEST.EXE - a DOS program which writes data to and reads data from the communications port installed on the test machine.

DISKTEST.EXE - a DOS program used to test the BIOS interrupts for accessing the disk drives installed in the test machine.

FILLSCRN.EXE - a DOS program used to fill the screen with 'X's of various colors in conjunction with the MODETEST program.

FMT_TEST.BAT - a DOS batch file that formats a floppy disks for all formats supported by DOS 5.0. FMT_TEST calls the FORMAT program repeatedly using a variety of command line switches corresponding to disk formats.

HCTLIST.XLS - the Microsoft Excel for Windows source for the HCT Checklist.

HCTPROB.XLS - the Microsoft Excel for Windows source for the HCT Problem Report form.

KEYBOARD.EXE - a DOS program that prompts for various keystrokes used to test the DOS - keyboard interface.

MODETEST.EXE - a DOS program that tests all of the video modes available for the display installed. MODETEST uses the FILLSCRN program.

PRINTER.EXE - a DOS program that makes queries and attempts to write data to the printer port (and printer, if installed).

README.DOC - the Microsoft Word for Windows source for this document.

PROTECT.EXE - a DOS program for 80386 or 80486 based test machines that tests the initialization of the BIOS segment registers.

RESULTS.TXT - output from the QBASIC COMPAT program summarizes the display

modes supported and disks installed.

SCREEN.BAS - a QBASIC program that tests screen swapping.

SYSINFO.EXE - a DOS program that displays information about the test machine received from interrupts with the BIOS code.

TEST.BAS

TESTH.BAS

TESTNOHI.BAS - QBasic programs that verify the user interface and help screen are readable in various screen modes.

TIMETEST.EXE - a DOS program that sets the current date and time and confirms the clock continues to run normally.

XMSTEST.EXE - a DOS program that tests the moving of blocks between extended and conventional memory.

YNC.EXE - a program used in the FMT_TEST batch file for user prompts.