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MacTest Pro 680x0-based Macintosh computers Read Me (5/96)

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Revised:        5/30/96
Security:       Everyone
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Article Created: 29 May 1996

TOPIC ---

This article is the MacTest Pro for 680x0-based Macintosh computers Read Me
file.

DISCUSSION --

The February 1996 Macintosh Family Diagnostics Update Mailing includes separate
CD's, diskettes, and User's Guides for MacTest™ Pro for 680x0-based Macintosh
computers, and for MacTest Pro for Power Macintosh.

The information in this READ ME file refers to MacTest Pro for 680x0-based
Macintosh computers, and is effective as of 02/21/96. This file contains
important information about the MacTest Pro application, its test modules, and
the MTP Emergency application. This information supersedes some sections of the
MacTest Pro User's Guide for 680x0-based Macintosh computers (073-0326-F).

WHAT'S NEW

• MacTest Pro v1.3 and MTP Emergency v1.1 are designed to launch only on
680x0-based Macintosh computers; these applications will not launch on Power
Macintosh computers. Use the MacTest Pro for Power Macintosh and MTP Emergency
(PPC) applications to diagnose Power Macintosh computers.

• For Macintosh Quadra and Centris computers upgraded with the Power Macintosh
Upgrade Card, and for Macintosh 630 series, LC 475, LC 575, and Quadra 605
computers upgraded with the Macintosh Processor Upgrade Card, use MacTest Pro
v1.3 (for 680x0-based machines) with the Power Macintosh Card Tests module, and
use MTP Emergency v1.1.

• For 68000-based Macintosh computers (Macintosh Plus, SE, Classic, Portable,
and PowerBook 100) only the MTP Emergency application is available. For 68020,

68030, 68040, and 68LC040-based computers, both MTP Emergency and the MacTest Pro application are available.

• The following test module updates include minor bug fixes and enhancements:

    Communication Ports Tests v1.3
    Expansion Card Tests v3.0
    File Checker v2.1.1
    Hardware Info v1.9.7
    Software Info v1.9.1

• The Display Service Utility v1.0 is now included on the MacTest Pro CD and on the "MacTest Pro (App+Mods Vol2)".

BOOTABLE MACTEST PRO CD

The MacTest Pro CD v5.0 is bootable on almost all 680x0-based Macintosh, PowerBook, and Performa computers. Instructions for booting from the CD are included in the CD Guide booklet. Electronic copies of current MacTest Pro documentation and the most recent System Software Enablers are provided on the MacTest Pro CD.

You may launch MacTest Pro, MTP Emergency, and the printer and display utilities from the CD whether or not you to boot from the CD. Please refer to the electronic document "How to Use this CD" located on the CD for more information.

BOOTABLE DISKS

Two of the four disks in the MacTest Pro (for 680x0-based Macintosh computers) disk set are BOOTABLE emergency startup disks. Between the two, these disks will boot all 680x0-based Macintosh computers except for the PowerBook 190 (see the User's Guide section "MTP Emergency - Creating Emergency Disks" for more information). The MTP Emergency application is the same on both of the bootable disks. Instructions for using the MTP Emergency disks are included in the "Using the MTP Emergency" section of the MacTest Pro User's Guide.

• Use the "MTP Emergency (680x0)" bootable 1.44MB disk with Motorola 680x0-based Macintosh computers which are equipped with a 1.44 MB floppy drive. This disk contains the MTP Emergency application and System 7.5.

• Use the "MTP Emergency (SSW 6.0.8)" bootable 800K disk for 680x0-based Macintosh computers which are equipped with only an 800K floppy drive. These include the Macintosh Plus, SE, SE/30, Macintosh II, IIx, and IIfx -- if the computer has never been upgraded to include a 1.44 MB floppy drive. This disk contains the MTP Emergency application, System 6.0.8, and Finder.

NONBOOTABLE DISKS

Two of the four disks in the MacTest Pro disk set are nonbootable; they do not
contain System files.

• "MacTest Pro (App+Mods Vol1)" contains the MacTest Pro application, the
commonly used CPU and peripheral test modules, Hardware Info, Software Info, and
the READ ME and VERSION INFO files.

• "MacTest Pro (App+Mods Vol2)" contains the MacTest Pro application, tests for
serial ports, modems and cards, and printer and display utilities.

OPERATING TIPS - WORKAROUNDS - KNOWN BUGS

The "Operating Tips - Workarounds - Known Bugs" listed here are either new with
this release or represent issues that all MacTest Pro users MUST be aware of.
An electronic copy of the most recent MacTest Pro User's Guide is included in
the Documentation folder on the MacTest Pro CD.

••• MacTest Pro CD •••
If a PowerBook 160 has been set to "24 bit mode", the MacTest Pro CD will not
boot the machine. You may boot from the MTP Emergency disk, or you may set the
PowerBook 160 to "32 bit mode", then boot from the CD.

Because Display Service Utility's "settings restore" option creates a file to
temporarily store settings, it cannot be run from the CD-ROM or other locked
media. Move the Display Service Utility to the hard drive or to an unlocked disk
before using it.

If you boot a Macintosh Classic II, Color Classic, or SE30 from the MacTest Pro
CD, then use the Shutdown option in the "Special" menu within the MacTest Pro
application, you may get a dialogue box requesting that you "Please insert the
disk: MacTest Pro", even though the CD is still in the drive. After a moment the
Macintosh will shut down properly, however you may need to eject the CD
manually. To avoid this problem, quit MacTest Pro, and then use the Finder
"Special" menu, Shutdown option.

••• MacTest Pro Application •••

Help text cannot be printed.

Drag launching a test module causes window refresh problems, and the module will
not appear in the Test Selection region of the Main Window until you refresh the
window. Also, a "did not load" message will appear in the Operation Info log
even though the test module actually did load.

Test modules that turn off AppleTalk (see User's Guide for additional
information) can interrupt some network services, such as the Apple Laserwriter
Bridge. This results in an alert to the user, which must be dismissed by the
user before testing will continue. This interruption can impact the looping of
tests. Do not leave the machine unattended until at least one loop of testing

has been completed.

If you already have a version of the Help test module loaded in MacTest Pro, do
not manually load another version of the Help test module. If you wish to use a
different version of the Help test module, quit MacTest Pro, move the old
version out of the Test Modules folder, and replace it with the new Help test
module.

••• MTP Emergency Application•••

Always connect SCSI hard drives to the standard SCSI connections provided by the
Macintosh hardware before running diagnostic tests. If you run hard drive tests
on drives connected to a 3rd party SCSI bus (i.e. expansion slot card), then
MacTest Pro may hang, or may incorrectly report a hard drive failure. If you
subsequently run a Logic Board Test, MacTest Pro may incorrectly report a logic
board failure. Do not reject a hard drive or logic board based solely on these
false reports. Turn off the Macintosh, reconnect the SCSI hard drive to a
standard SCSI connection and restart the Macintosh. Then launch MacTest Pro and
start the tests again.

On a PowerBook or PowerBook Duo, always disconnect external monitors before
running MTP Emergency, unless you are specifically testing the external VRAM. In
that case, be sure that video mirroring is OFF before launching MTP Emergency,
otherwise the system may crash.

On a PowerBook Duo 250 running under System 7.1, MTP Emergency may incorrectly
identify the machine as a PowerBook Duo 230.

On a Macintosh Centris 660AV, MTP Emergency may quit with a "type 3 (illegal
instruction) error" after looping for four or more hours, when the machine is
booted from the CD or a floppy. Do not reject a logic board based solely on this
behavior. Boot the computer from the hard drive, and rerun the test.

On the Macintosh Centris 610 and Quadra 610, MTP Emergency may crash or hang
after looping for four or more hours; do not reject a logic board based solely
on this behavior.

On the Macintosh Centris 610 and Quadra 610 MTP Emergency may incorrectly report
that VRAM has failed at address "$1"; do not reject VRAM or a logic board based
solely on this behavior.

On a Macintosh 630 or 640 series DOS Compatible computer, MTP Emergency may quit
with a "type 2 (address) error" after looping for four or more hours, when the
machine is booted from the CD or a floppy. Do not reject a logic board based
solely on this behavior. Boot the computer from the hard drive, and rerun the
test.

To launch MTP Emergency on a Macintosh LC which has System 6.0.8 on the internal
hard drive, you must boot from the MTP Emergency disk. (On a Macintosh LC, if
you boot with System 6.0.8 from the hard drive, and then launch MTP Emergency
from either the hard drive or a floppy, the machine will hang. If you attempt to
launch MTP Emergency from the CD, an inappropriate dialogue will appear
indicating that the CD desktop is damaged and must be rebuilt, which is not true

since the CD is read-only media.)

On some machines (e.g. the Macintosh Quadra 900, the Macintosh LC II, and the PowerBook 540), the percent numbers reported in the status line "Running Video RAM test... (___% complete)" do not appear to match the patterns being displayed on the monitor. This is caused by the interaction between the screen-handling routine and interrupt timing, and does not indicate any problem with the functionality of computer's VRAM or with the VRAM test.

The CPU clock speed that is displayed in the Hardware Info Log and by MTP Emergency is an approximation based on information gathered from the system; the presence of accelerator cards may affect the accuracy of this information.

••• Communication Ports Tests •••

Do not loop the Network File Transfer option of the Communication Ports Tests in combination with logic board tests. If the looping feature is used with a logic board test marked "(Must Restart)", then the Network File Transfer test will report a false failure.

The Network File Transfer option of the Communication Ports Tests requires that the file server selected in the Setup window be in the same "zone" as the test machine; if it is not, then the Network File Transfer test may report a false failure.

••• Ethernet Card Tests •••

The "Test Info" and the "Operation Info" in the MacTest Pro application state that you may run the Ethernet Card Tests while the card is connected to a network. This is INCORRECT. Running the test while connected to a network may result in a crash or false failure of the test. To run the test correctly, disconnect the card from the network, and restart the Macintosh before launching MacTest Pro.

••• Mass Storage Device Tests •••

The Mass Storage Device Tests module is designed to test all CD-ROM drives, hard drives and tape drives released by Apple, when installed with driver software by Apple. The test module will load and attempt to run on non-Apple devices (see below) and/or with non-Apple drivers (such as FWB CD-ROM Toolkit), however MacTest Pro has not been tested with third-party CD-ROMs and drivers.

Mass Storage Device Tests does not currently support CD-ROMs with blocksizes other than 2048 bytes, or hard drives with blocksizes other than 512 bytes (such as 4Gb drives which may have blocksizes larger than 512 bytes). Any results which may be obtained will not be reliable.

Mass Storage Device Tests can test a PCMCIA card which is an IDE hard drive (except on PowerBook 500 series computers). The test module may load and attempt to test other PCMCIA devices (such as flash cards), however any test results which may be obtained will not be reliable.

When you are testing a DDS-DC tape drive, be sure to use a properly formatted

known-good tape (for example, if you insert a 'Helical Scan' tape, the test will
fail). Also, if the write protect switch on the tape is enabled, the test will
fail.

When running Mass Storage Device Tests, if the CD-ROM test disc was already
inserted in the CD-ROM drive when a test failure is detected, the CD-ROM test
disc may not eject from the CD-ROM drive. To eject the CD-ROM test disc, run the
CD-ROM portion of the Mass Storage Device Tests again, and then cancel the test
after the CD-ROM test disc is ejected. Or, reboot the computer, and the CD-ROM
test disc will be ejected automatically.

VERSION INFO

Information about the current versions of System Enablers, and MacTest Pro test
modules can be found in the accompanying VERSION INFO file.
Version info document can be found in TIL article 19897.

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Tech Info Library Article Number:19883