

# **Pc-Check**<sup>®</sup>

# Why the biggest and busiest computer assemblers and service departments have relied on Pc-Check<sup>®</sup> to provide savings – in time, effort, and testing efficiency – for over 23 years...

# Leveraging the Benefits of Testing

For over 2 decades, assemblers and service departments have reaped the rewards of diagnostic testing.

## Saving Time

The most precious resource you have aside from your staff is time. We always need more. Pc-Check has saved assemblers and service departments significant time in all areas of operation including...

· initial manufacturing testing

• testing in the field service process,

• testing in the returns and refurbishment processes.

#### Time saving features include.....

• Self-booting design– execute testing upon boot up regardless of installed operating system.

• Script editing, saving, and launching features let you run the same custom tests each time you boot Pc-Check eliminating operator choice.

• State of the art test algorithms designed to test the most sensitive and failure prone areas of components first in order to find failures quickly.

## Safety and Knowledge

For any component that is manufactured, there is always a small (or in some cases large) percentage of units that are failures for one reason or another; we refer to this percentage as defects. Defects will occur on every component that is manufactured regardless of type.

#### **Diagnostics Provide a Sanity Check**

The key for manufactures and servicers is finding the defects before they arrive with the customer. The safe and proven approach to defect management of PC components is diagnostic testing.

**Diagnostic testing provides a sanity check** for incoming and outgoing systems ensuring you've made the right steps in your process.

An integral part of the safety of diagnostics is the data that is provided. Detailed test outputs, system information, and report output functionality provides confirmation of required hardware, and streamlines warranty returns processes and proof-of-failure requirements.

# Safety and information features include.....

# Advanced Diagnostic Tests

Extensive test coverage for all major hardware groups including...

- Processor
  Memory
- Motherboard Drives
- Ports
  I/O
- Audio
  Video
- System Board and more
- Multi-cycle, Timed, Interactive or Passive burn-in testing modes.
- Over 70 command line options.
- Supports multiple processors on all CPU tests.

Advanced USB Controller tests.

#### System Stress Tests

Identify problems that may not occur when components are tested individually.

- CPU
  Hard Disk
- RAM CD/DVD
- Video And more...

# Integrated system information tools show hardware in fine detail

- View detailed system information properties of every component.
- See System Management information.
- PCI Bus information.
- IRQ Routing information.
- Obtain detailed configuration as XML.

# Complete separation of hardware and software

• Self-booting separates hardware from your native operating system.

- Separates hardware from device drivers.
- Identify and test memory modules individually for faster disaster recovery.
- Prompt identification of hardware.
- Perform state-of-the-art testing.
- · Find problems fast.



Pc-Check<sup>®</sup> is the ideal low-level test tool...test and detect all hardware... without interference from the operating system or device drivers

Europe: +44 (0)1202 297 315

North America: +1 712 255 7483

# Pc-Check<sup>®</sup> lets you...

- Guarantee reliability of all systems you build, install, or service
- Increase your profits by reducing system repairs and returns
- Manage your cash flow with various licenses
- Decrease your support costs with the support bundling license
- See immediate ROI...

# Cost Elimination

 No more time lost on chasing intermittent issues.

· Eradicate time wasted on software and driver problems.

• Typically begin testing within 1 minute of turning on the PC.

# Easy to Use - even by end users

· Single CDROM, USB Flash drive, floppy disk or PXE network boot options available with site license only - totally self-contained.

- Begin testing in 1 minute...without reading the manual.
- · Choose from the Test menu.
- · Select individual test modules.

 Simple DOS-like GUI offers all tests necessary to guarantee PC reliability.

· Reports reasons for "no fault found" that manufacturer-specific diagnostics can't find

# eTest Manager helps create over 70 different start-up options giving you total control over Pc-Check.

· Windows based script editor used to customise and build Pc-Check images.

· Set and save your testing environment settings for re-use throughout your operation.

· Command line option offers scripted selection of sub-tests.

New Test Script\*

Tests

🔇 Eurosoft eTest Manager - Pc-Check

File Media About

Control Mode

New Command Line

· Create test scripts for use throughout your entire operation and supply chain. · Receive exacting consistency and

repeatability in PC testing by...

- Saving your burn-in test setup as a file. - Referencing that file every time you
- start Pc-Check.

# Record/ Save all testing related data

- · Save all test results to a file.
- · Save the test technician's name.
- · Save each system serial number.
- · Capture scripted test results as XML.

# **Enhanced CPU detection and** testing

 Test as many as 160 logical processors simultaneously...including 64-bit.

- Multi-core L2 and L3 cache support.
- · JIT code generation and virtual CPU models provide unlimited test combinations.

# Hard disk performance check

· Test hard disks in the Exabyte range per disk; up to 64 hard disks.

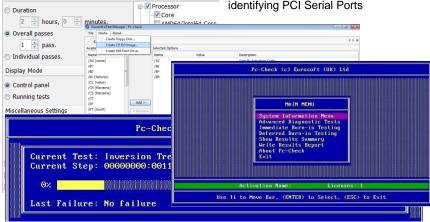
· Large sector size support, test new 4k sector size devices.

· Fully test hard disks faster and achieve greater test coverage when using a specified testing duration.

· Interactive test option provides a quick benchmark to indicate possible disk faults.

## Improved PCI handling

 Added Command line switch /IP ignores PCI serial devices · Added /SG Command line switch to perform additional 'Sanity' checks when identifying PCI Serial Ports



· Perform a media sweep for visual analysis of performance stutter, as well as minimum, maximum, and standard deviation transfer rates.

· Superior SMART drive testing ensures excessive fault detections will fail a disk...regardless of vendor SMART implementations or the reported disk SMART status.

# Network card controller tests

• Test high speed (1GB) network cards without an external loopback plug.

# Improved Trusted Platform Module test

· Ensures that TPM devices are capable of securely storing data, such as passwords.

# **High Definition Audio tests**

· As well as AC97 audio standard test

# **Reliable Memory Testing**

- · SMBIOS 3.0.0- identification of DDR4 and LPDDR memory devices.
- Will test up to 4Tb total 128 Modules

Please see the Eurosoft Product Test Table for specific hardware test coverage.

# **Pc-Check® supports industry**

# standard test initiatives

# Pc-Check<sup>®</sup> Package:

- Program CDROM
- Convenient download updates
- Comprehensive user e-manual
- USB Preferred Port Plug (1 per license)
- Loop-back plugs (2 Parallel, 1 Serial Port set per license
- One year free Upgrade Subscription
- Free Technical Support

• Extra Test Accessory and Multiple System Testing License options available (contact Eurosoft for details).

# **Minimum System Requirements**

- •.Net Framework V3.5 or greater.
  - Adobe Acrobat or similar PDF reader to read the manuals.
  - Pc-Check<sup>®</sup>: EuroDOS<sup>™</sup> self-booting operating system (included)
  - •eTestManager™: Microsoft® Windows XP,
- Windows 7, 8 or 8.1 operating system •Writable media capabilities i.e. CD-R[W] capable drive.

•Approximately 650MB of free hard disk space (for temporary use only).

# Diagnostic coverage for all major hardware groups

# AC97 & HD Audio

Sound Play

# **Optical Drive**

Linear Read Random Read Advanced Movement Media Eject

# **Removable Media**

Linear Read Random Read

# Hard Drive

Butterfly Seek (Full Stroke) Read/Verify Surface Scan Sequential Access **Random Access** Linear Seek Random Seek Write Tests Cache Tests **Performance Check** Standby Test **Zone Access** S.M.A.R.T. S.M.A.R.T. Status/Imminent Failure S.M.A.R.T. Short Self Test S.M.A.R.T. Extended Self Test S.M.A.R.T. Conveyance

# **Keyboard**

Key Operations LEDs Key repeat Stuck key detection

# **Parallel Port**

Data Port Status Register External Loopback

# System Board

CMOS Clock CMOS Checksum CMOS Battery

# CPU

Core (Integer, branching, flags, etc) AMD 64 Bit/Intel EM64T MMX 3D-Now SSE SSE 2 SSE 3 SSE 4.1 Floating Point Symmetry (Performance/ Cache Coherence) Multiple Threads (Hyperthreading) Multiple Cores Multiple Processors

## Memory

System Memory Test Test Individual Module User Pattern Test Cache Memory Tests Benchmark Memory Video Memory Test Pseudo Random Data Bit Stuck High Bit Stuck Low Pseudo Random Address Module Seating Test Microtopology Locality Test Small Block Stride

# Network

Configuration Controller Tests

PCI Express Link Width Configuration

# Monitor

Red Purity Green Purity Blue Purity Mesh Inverse Mesh Tonality (Equivalent Test) Grid Gamma Test Card

**Trusted Platform Module** Self Test Subversion Test

# Pointer

Mouse Tracking Mouse Click Touchpad Tracking Touchpad Click

# Serial Port

Configuration Registers Quick Loop Back Baud Rates Sustained Loop Back UART Internal Loop FIFO

# **System Stress**

**Extended Stress** 

## System Information

Hardware Configuration PCI Configuration USB Bus Information SMBIOS Information

# USB

Detected Devices (Root Device Information) Controller Tests External Diagnostic Device

# **Firewire**

**Controller Tests** 

## Video

Linear Memory Test Microtopology Memory Test Chaotic Memory Addressing Color Palette BGA Palette Test Color Separation

# **Solid State Drives**

Linear Read Random Read S.M.A.R.T. Failure S.M.A.R.T. Short S.M.A.R.T. Extended S.M.A.R.T. Conveyance

# RAID

Linear Read





Extend and enhance your test procedures with Eurosoft's proven PC Diagnostic Programs and unique test accessory hardware. Each computer testing accessory is developed to work specifically with Eurosoft's test programs providing you with independent and reliable test results of peripheral ports and media devices.

#### **Eurosoft PC Test Accessories**

• PC Diagnostic Test Accessories complement and extend the test and diagnostics provided by current software solutions

- PC Diagnostic Test Accessories fully support the entire PC diagnostic, test and assessment program
- PC Diagnostic Test Accessories validate Serial, Parallel, Audio and USB ports
- PC Diagnostic Test Accessories confirm CD-ROM and DVD Drive operations
- PC Diagnostic Test Accessories compare BIOS/POST results
- PC Diagnostic Test Accessories are designed to universally support the Eurosoft diagnostic software for enhanced peripheral testing

# Need more test coverage?

# Also consider adding Eurosoft QA+WIN™ Diagnostic Software for testing inside of Windows



Addresses all aspects of the PC lifecycle, including assembly, support, repair and recycling

Thoroughly tests components and peripherals using Windows-based diagnostics for software driven/PCI hardware

Delivers wide-ranging hardware tests to ensure that PCs are configured correctly regardless of the component brands

Allows fast and targeted test loading to satisfy vendor-specific tests requirements

Reduces expensive field service calls, NTFs, wrongful product returns and overstocked field service products

Provides test and diagnostic data that can be printed, viewed or used to generate reports and other user-specific requirements

# Call a Eurosoft consultant today to discuss your testing goals...

#### Contact us for further information on Pc-Check® or any other Eurosoft product.

Eurosoft (UK) Ltd Head Office 3 St Stephens Road Bournemouth, UK BH2 6JL

Tel +44 (0)1202 297315 Fax +44 (0)1202 558280

info@eurosoft-uk.com www.eurosoft-uk.com



Eurosoft (US) Inc. Sales & Support Office 706 Jackson Street Sioux City, IA 51105, USA

Tel US +1 (712) 255-7483 Fax +1 (866) 615-9384

info@eurosoft-us.com www.eurosoft-us.com

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