WHITE PAPER

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Compaq Portable Certification Program Participation

Compaq commercial portables participate in several external certification programs. Programs from Microsoft, DMI, NSTL and Novell provide unbiased evaluation of computers using well-established criteria. Stamps of approval from these organizations make an important statement to users about the reliability of the hardware under a particular Microsoft or Novell operating system, Year 2000 readiness in the case of NSTL qualification or interoperability with DMI compliant applications and hardware.

The purpose of this document is to provide a concise explanation of each of these programs, current status of Compaq commercial notebooks and pointers to additional information.

This document is intended for internal and external audiences with a need for more information about the certification programs in which Compaq commercial notebooks participate.

COMPAQ

NOTICE

The information in this publication is subject to change without notice.

Compaq Portable Certification Program Participation

OVERVIEW OF CERTIFICATION PROGRAMS

Table 1 summarizes the certification status of every Armada and LTE 5000 notebook for Windows logo programs, DMI compliance, Year 2000 readiness and Novell compatibility. Certification status for all programs except NSTL Year 2000 Compliance is maintained at http://www.compaq.com/support/files/portables/us/cert.html. For certification status by specific model, refer to Table 3 in Appendix A.

COMPAQ PORTABLE CERTIFICATION STATUS

Notebook Family	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
LTE 5000	PC95a	Compatible	No	Yes	Yes
Armada 1100	PC95a	Compatible	No	Yes[1]	Yes
Armada 1500	PC95a	DFWNT	Yes	Yes	Yes
Armada 1700	PC97	PC97	Yes	Yes	Yes
Armada 4100	PC95a	DFWNT	Yes	Yes[2]	Yes
Armada 4200	PC97	PC97	Yes	Yes	Yes
Armada 7300	PC95a	DFWNT	Yes	Yes	Yes
Armada 7700	PC95a	DFWNT	Yes	Yes	Yes
Armada 7800	PC97	PC97	Yes	Yes	Yes

Table 1 - Compaq Portable Certification Status

The following sections provide addition information on each certification program.

MICROSOFT LOGO CERTIFICATION PROGRAMS

All Armada and LTE 5000 notebooks have been designed to meet Microsoft criteria for Windows logo certification. Since 1995 Microsoft has implemented a number of hardware certification programs designed to promote qualified platforms as being particularly well suited for use with Microsoft operating system. Today, qualification criteria are in the form of a published set of guidelines for hardware design. The latest revision of these guidelines is known as PC97 and applies to both Windows 95 and Windows NT 4.0. These guidelines are revised periodically so as to comprehend new technologies and evolving user requirements. The follow-on revision is PC98, which will take effect July 1, 1998.

Over the past several years Microsoft logo certification programs have changed several times. As the underlying qualification criteria changed, so did the terminology Microsoft uses to communicate qualification status for a particular platform. Table 2 summarizes the various Windows logo certification programs that have been in effect since 1995 and the terminology used to communicate that a particular platform meets qualification criteria.

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[1] The Armada 1100 requires a ROM upgrade, SoftPaq 4189 or later for the Armada 1120 and 1120T and SoftPaq 4190 for the Armada 1130 1130T.
[2] The Armada 4131T, 4150, 4160 and 4160T require a ROM upgrade, SoftPaq 2935 or later.

MICROSOFT HARDWARE CERTIFICATION PROGRAMS

Program	Designator	Operating System Scope	Start Date	End Date	Description
Designed for Windows 95 Logo	PC95a	Windows 95	7/95	6/97	Replaced by the Designed for Windows NT and Windows 95 logo program.
Windows NT Compatible Logo	Compatible	Windows NT	7/95	6/96	Replaced by the Designed for Windows NT logo program.
Designed for Windows NT Logo	DFWNT	Windows NT	7/96	6/97	Replaced by the Designed for Windows NT and Windows 95 Logo program.
Designed for Windows NT and 95 Logo	PC97[3]	Windows 95 Windows NT	7/97	1/98	PC97 criteria require qualification under both Windows NT and Windows 95 in order to use the Designed for Windows NT and Windows 95 Logo.

Table 2 - Microsoft Hardware Certification Programs

Platforms displaying the Microsoft Designed for Windows NT and 95 logos must meet PC97 criteria. As a matter of practice Compaq Armada portables must meet Windows logo certification criteria by first shipment. In order to make this happen, Microsoft certification tests are run throughout the platform development cycle and problems are resolved as they are uncovered.

Refer to Table 1 for current Microsoft certification status for all Armada and LTE 5000 notebooks. For more information refer to the Microsoft web site at http://www.microsoft.com/hwtest/.

DESKTOP MANAGEMENT INTERFACE (DMI)

Compaq delivers full support and software required for the Desktop Management Interface including DMI Compliance. Compaq is a Steering Committee and Technical Committee member of the Desktop Management Task Force (DMTF), the industry consortium that manages the DMI. As such, Compaq provides leadership for the PC industry by helping to form and adopt new standards. In the past, Compaq was the principle author of the original DMI Management Information File (MIF). More recently, Compaq was instrumental in the creation of the next-generation Common Information Model (CIM).

DMI solutions transitioned, going from DMI 1.1 to DMI 2.0. DMI 2.0 delivers new functionality like a standard method for moving DMI information over the network (there was no standard for this prior to DMI 2.0), and a method for handling alert notifications. All Compaq Armada portable PCs with the exception of the Armada 1100 Series are DMI compliant and certified. The Insight Management Agent (version 3.50 and newer; except 3.50B) delivers the necessary DMI 2.0 software and is available on the Support Software CD and WWW (http://www.compaq.com/support/files/portables/us/index.html) site.   Insight Management Agent Version 3.20 provides DMI 1.0 support.

Many management applications utilize the DMI to help manage devices on the network. Compaq has worked extensively with each of these vendors to ensure that DMI solutions are well integrated and thoroughly tested. Management Solutions Partners supporting DMI are:

- Asset Software International (AssetPRO)

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[3] PC97 requirements were implemented in three phases. Phase 1 began 7/97, Phase 2 in 1/98 and Phase 3 in 4/98.

- Computer Associates (UniCenter v. 2.1)

- Intel (LANDesk Management Suite)

- Hewlett Packard (Norton Administrator for Networks)

- Network Associates, Inc. (Saber LAN Workstation or Zero Administration Client)

- Seagate (WinLAND 4.0)

- Tally Systems (NetCensus)

For more detailed information on Compaq's standards-based manageability solution and how Compaq integrated DMI into its products and solutions, access the Compaq web site at www.compaq.com/im/ats.html.

For more information on DMI access the DMTF web site at http://www.dmtf.org.

YEAR 2000 READINESS

To ensure that every product meets customer requirements for Year 2000 compliance, Compaq participates in an outside certification program. NSTL is in an outside test organization that has developed an entire certification program for Year 2000 readiness. Using a test they developed and freely distribute, platforms that meet the criteria are eligible to use the NSTL Year 2000 Compliance logo. Meeting NSTL criteria for currently shipping as well as legacy platforms is a company wide initiative at Compaq. For customers who purchase products from many different product lines, they can rest assured that the same stringent Year 2000 readiness criteria were used for each product. Refer to Table 1 for current Year 2000 compliance status for all Armada and LTE 5000 notebooks.

Compaq maintains a list of portables certified to be Year 2000 compliant. Only those products announced prior to October 7, 1997 are listed. Products announced October 7, 1997 and later will not be added to the list; however, these products are Year 2000 compliant. Furthermore, Year 2000 compliance is covered under the product's warranty. Refer to the Warranty Clarification section of the Compaq Year 2000 web site at http://www.compaq.com/year2000/year2000-warr.html for more information.

For more information on the Compaq Year 2000 initiative refer to the Compaq web site at http://www.compaq.com/year2000/. To download the year 2000 test or for more information about NSTL refer to the NSTL web site at http://www.nstl.com.

NOVELL COMPATIBILITY

Novell NetWare continues to play a dominant role in the network operating system arena. For Compaq ensuring that portable products work with NetWare is a primary objective when developing new products. Compaq works closely with Novell when introducing a new portable product to ensure that the platform meets stringent Novell criteria for operating as a NetWare client. Representative models from a new portable family are self certified by Compaq and results sent to Novell. Refer to Table 1 for current Novell compatibility status for all Armada and LTE 5000 notebooks.

Qualification status for a particular platform is published on the Novell web site. Refer to http://developer.novell.com/prodcert/ for more information about the program or for detailed test results.

POWERPOINT SLIDE PRESENTATION

Certification Programs Participation

- Microsoft Logo Certification Programs
- Desktop Management Interface
- Year 2000 Readiness
- Novell Compatibility

Certification Status

Notebook Family	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
LTE 5000	PC95a	Compatible	No	Yes	Yes
Armada 1100	PC95a	Compatible	No	Yes	Yes
Armada 1500	PC95a	DFWNT	Yes	Yes	Yes
Armada 1700	PC97	PC97	Yes	Yes	Yes
Armada 4100	PC95a	DFWNT	Yes	Yes	Yes
Armada 4200	PC97	PC97	Yes	Yes	Yes
Armada 7300	PC95a	DFWNT	Yes	Yes	Yes
Armada 7700	PC95a	DFWNT	Yes	Yes	Yes
Armada 7800	PC97	PC97	Yes	Yes	Yes

FREQUENTLY ASKED QUESTIONS

Do the various labels used by Microsoft to describe Windows NT 4.0 certification constitute levels of qualification, where a particular level could be considered better or worse than another?

No, the designators used for Windows NT 4.0 certification simply describe the criteria that were in effect at the time the hardware was qualified. These criteria have evolved over time so as to comprehend new hardware technologies and to ensure consistency with the Windows 95 certification program. Hardware qualified with older Microsoft criteria is still considered suitable for use with Windows NT 4.0. Also, Windows NT 4.0 certification criteria do not include software enhancements such as power management and PC Card support that are typically provided by the hardware manufacturer for Windows NT 4.0. For example, even though the LTE 5000 holds the Windows NT-Compatible logo, Compaq provides power management and PC Card enhancements similar to those provided on newer Armada platforms that meet PC97 criteria.

Does Compaq support the Desktop Management Task Force (DMTF)?

Yes. Compaq is a DMTF Steering and Technical Committee member and fully supports DMTF efforts to create standards for the management of networked PCs. The DMTF has made great strides in development of technology that provides a standard framework to manage PCs and a definition of DMI compliance. All Armada portable PCs are DMI-Compliant and come pre-installed with software needed to function in DMI-based environments.

What does DMI compliant mean?

Component products such as PCs, adapter cards, printers and software that are to be managed by DMI compliant management applications, must adhere to the DMTF Standard Group Compliance Rules by supporting the "Component ID" standard group and by following the established implementation structure for other standards groups that are supported. Component products must at least be able to identify themselves to the DMI Service Layer and follow the procedure for supporting other Standard Groups as defined in DMTF Management Information Format (MIF) file specifications. Using this implementation, System Administrators can retrieve system configuration information from connected clients over the network. With DMI 2.0, in addition to enhanced asset management, also supports client alert notifications over the network for fault management.

Are Armada portables DMI 2.0 compliant and certified?

Yes, all Armada portables, with the exception of the Armada 1100 Series, are DMI 2.0 certified by the Desktop Management Task Force. The Insight Management Agent Version 3.50 or later (except version 3.50B) provides the necessary DMI software support to obtain DMI 2.0 compliance. The Insight Management Agent can be downloaded from the Compaq web site at www.compaq.com/support/files and are available on the Support Software CD.

The Compaq web site does not list the Armada 7800 as being Year 2000 compliant. Is the Armada 7800 compliant and if so, when will the web site be updated?

The Armada 7800, as well as all currently shipping and future notebooks, is Year 2000 compliant. The necessary core BIOS code required to support year 2000 rollover in a way that meets NSTL criteria will be incorporated in all future platforms. Furthermore, the NSTL compliance test is used to validate all new BIOS releases. Since this guarantees that all new platform meet NSTL criteria and year 2000 support is now included as part of the Compaq warranty language, it is no longer necessary to list every new notebook as being NSTL compliant. Information on BIOS upgrades for

legacy notebooks will continue to be maintained on the Compaq web site at
http://www.compaq.com/year2000.

APPENDIX A

DETAILED COMPAQ PORTABLE CERTIFICATION STATUS

Notebook Family	Notebook Model	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
LTE 5000	LTE 5000	PC95a	Compatible	No	Yes	
	LTE 5100	PC95a v4.02		No	Yes	
	LTE 5150	PC95a v4.02	Compatible	No	Yes	Yes
	LTE5200	PC95a v4.02	Compatible	No	Yes	
	LTE 5250	PC95a v4.02	Compatible	No	Yes	Yes
	LTE 5280	PC95a v4.02	Compatible	No	Yes	
	LTE 5300	PC95a v4.02	Compatible	No	Yes	
	LTE 5380	PC95a v4.02	Compatible	No	Yes	Yes
	LTE 5400	PC95a v4.02	Compatible	No	Yes	
Armada 1100	1110	PC95a v6/20/96		No	Yes	
	1120	PC95a v6/20/96	Compatible	No	Yes	Yes
	1120T	PC95a v6/20/96		No	Yes	
	1125	PC95a v6/20/96		No	Yes	
	1130T			No	Yes	Yes

Notebook Family	Notebook Model	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
Armada 1500	1510DM	PC95a v2/11/97	DFWNT/Comp	Yes	Yes	Yes
	1520	PC95a v2/11/97	DFWNT	Yes	Yes	
	1520D	PC95a v2/11/97	DFWNT	Yes	Yes	
	1520DM	PC95a v2/11/97	DFWNT	Yes	Yes	Yes
	1530	PC95a v2/11/97	DFWNT	Yes	Yes	
	1530D	PC95a v2/11/97	DFWNT	Yes	Yes	
	1530DM	PC95a v2/11/97	DFWNT	Yes	Yes	Yes
	1535DM	PC95a v2/11/97	DFWNT	Yes	Yes	
	1540D	PC95a v6/20/97	DFWNT	Yes	Yes	
	1540DM	PC95a v6/20/97	DFWNT	Yes	Yes	Yes
	1550DMT	PC95a v2/11/97	DFWNT	Yes	Yes	Yes
	1550T	PC95a v2/11/97	DFWNT	Yes	Yes	
	1560DM	PC95a		Yes	Yes	
	1560D	PC95a		Yes	Yes	
	1580DMT	PC95a v2/11/97	DFWNT	Yes	Yes	Yes
	1580DT	PC95a v2/11/97	DFWNT	Yes	Yes	
	1585DMT	PC95a v2/11/97	DFWNT	Yes	Yes	Yes
	1590DMT	PC95a v6/20/97	DFWNT	Yes	Yes	Yes
	1590DT	PC95a v6/20/97	DFWNT	Yes	Yes	
	1592DMT	PC95a		Yes	Yes	Yes
	1592DM	PC95a		Yes	Yes	
	1598DMT			Yes	Yes	
Armada 1700	6266/T/4000/D/M/1	PC97	PC97	Yes	Yes	Yes
	6266/T/4000/D/0/1	PC97	PC97	Yes	Yes	Yes
	6233/T/4000/D/M/2	PC97	PC97	Yes	Yes	Yes
	6233/T/4000/D/M/1	PC97	PC97	Yes	Yes	Yes
	6233/T/4000/D/0/2	PC97	PC97	Yes	Yes	Yes
	6233/T/4000/D/0/1	PC97	PC97	Yes	Yes	Yes

Notebook Family	Notebook Model	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
Armada 4100	4110	PC95a v8/8/96		Yes	Yes	
	4110D	PC95a v8/8/96	Compatible	Yes	Yes	
	4120	PC95a v8/8/96	DFWNT	Yes	Yes	
	4120T	PC95a v8/8/96	Compatible	Yes	Yes	
	4130T	PC95a v8/8/96	DFWNT	Yes	Yes	
	4131T	PC95a v8/8/96	DFWNT/Comp	Yes	Yes	
	4150	PC95a v8/8/96		Yes	Yes	Yes
	4150T	PC95a v8/8/96	DFWNT	Yes	Yes	
	4160T	PC95a v8/8/96	DFWNT	Yes	Yes	Yes
	4160T Slimline	PC95a v8/8/96	DFWNT	Yes	Yes	
Armada 4200	4210T	PC97 v11/3/97	PC97	Yes	Yes	
	4220T	PC97 v11/3/97	PC97	Yes	Yes	Yes
Armada 7300	7330T	PC95a v3/13/97	DFWNT	Yes	Yes	Yes
	7350MT	PC95a v3/13/97	DFWNT/Comp	Yes	Yes	Yes
	7350T	PC95a v3/13/97	DFWNT/Comp	Yes	Yes	
	7360DMT	PC95a	DFWNT	Yes	Yes	Yes
	7360DT	PC95a	DFWNT	Yes	Yes	
	7362DMT			Yes	Yes	
	7370DMT	PC95a	DFWNT	Yes	Yes	Yes
	7370DT	PC95a	DFWNT	Yes	Yes	
	7380DMT	PC95a	DFWNT	Yes	Yes	Yes
	7380DT	PC95a	DFWNT	Yes	Yes	
Armada 7700	7710MT	PC95a v3/13/97	DFWNT	Yes	Yes	Yes
	7710T	PC95a v3/13/97	DFWNT	Yes	Yes	
	7730MT	PC95a v3/13/97	DFWNT	Yes	Yes	Yes
	7730T	PC95a v3/13/97	DFWNT	Yes	Yes	
	7750MT	PC95a v3/13/97	DFWNT	Yes	Yes	Yes
	7750T	PC95a v3/13/97		Yes	Yes	
	7770DMT	PC95a	DFWNT	Yes	Yes	Yes
	7770DT	PC95a	DFWNT	Yes	Yes	Yes
	7790DMT	PC95a	DFWNT	Yes	Yes	Yes
	7790DT	PC95a	DFWNT	Yes	Yes	
	7792DMT	PC95a	DFWNT	Yes	Yes	Yes
	7792DT	PC95a	DFWNT	Yes	Yes	

Notebook Family	Notebook Model	Windows 95	Windows NT	DMI Compliance	NSTL Year 2000	Novell
Armada 7800	622/T/5000/D/M/1	PC97 v3/6/98	PC97	Yes	Yes	Yes
	622/T/5000/D/0/3	PC97 v3/6/98	PC97	Yes	Yes	Yes
	622/T/5000/D/0/3	PC97 v3/6/98	PC97	Yes	Yes	Yes

Table 3 - Detailed Compaq Portable Certification Status

LIST OF TABLES