Microsoft Windows
Driver and Hardware Development

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"File Date: May 16, 2001"

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See also:
Windows Logo FAQ
Mobile PC Design

ACPI web site ☐

OnNow Discussion List:
WinPower Mail List

OnNow and Power Management

OnNow design ensures that PCs are instantly accessible to users when needed, while remaining silent and consuming the least possible power when not actively working.

A comprehensive approach to system configuration and device power control is built into Microsoft® Windows® XP/Windows 2000 and Windows Me/98, based on the ACPI system interface and other new bus and device specifications. This supports capabilities that can be exploited by drivers and applications to improve the end-user's computing experience.

Fast Boot/Fast Resume for Windows XP
The Windows development team at Microsoft has worked to make fast startup PCs a reality with the release of the Windows XP operating system. Tools and information for designing and measuring fast boot/fast resume on Windows XP-based platforms are provided at http://www.microsoft.com/hwdev/fastboot/.

☐ Windows XP Native Processor Performance Control
(Draft Version 0.8; 20 KB zip file in Microsoft Word format; file date: April 20, 2001)
Windows XP includes built-in processor performance control to take advantage of microprocessors that utilize performance states to operate the processor more efficiently. This draft white paper explains the BIOS implementations needed to use the built-in support and outlines the policies that Windows XP uses for processor performance control.

Required support for ACPI 2.0 64-bit tables
The 64-bit edition of the Windows operating system requires that Itanium-based systems support the ACPI 2.0 64-bit fixed tables. See http://www.microsoft.com/hwdev/onnow/IA64_ACPI.htm.

▼ OnNow / ACPI Tools and DDK
ACPI HCT - see Windows HCT versions 9.5, 9.6 and 10.0
ASL Assembler/Compiler
(revised: March 31, 2000; version 1.0.13; exe file: 61K)
ASL String Compare Function (OS detection)
(revised: April 14, 1998; Zip file: 2K)
ACPI BIOS Lists and Test Matrix
Windows DDK
Windows Me DDK

▼ White Papers:

▼ ACPI Design White Papers
☐ ACPI Driver Interface Design Notes and Reference
(version 0.91; 22KB zipped .rtf file; file date: November 11, 1998)

☐ ACPI Specification Changes for Legacy Free
(73KB Word Document; File date: September 20, 1999)

ACPI Docking for Windows Operating Systems

http://www.microsoft.com/hwdev/OnNow/   Go

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▼ About this capture

PCI IRQ Routing on a Multiprocessor ACPI System
Static Resource Affinity Table (SRAT)
System State-to-Device State Mappings (SxD)
Windows 98 Retail Upgrade for ACPI Systems
Windows 2000 Support for Mobile System Displays
Windows Management Instrumentation and ACPI

▼**OnNow Power Management White Papers**
Windows Power Management
BIOS and Hibernate Issues for FAT32 File System
Designing Games to Run on Power-Managed Computers
Device Power Management
OnNow and Display Device Class Drivers
OnNow and WDM
OnNow: Evolution of the PC Platform
PCI Power Management and Device Drivers
Power Management Architecture for Applications
UPS Applet for Windows 2000
WDM Power IRP: A Conversation with Windows
Developers

▼**Windows 98/Me Power Management White Papers**
VCOMM Port Driver Power Management Interface
Device Power Management for VxDs
Display Adapter Drivers and Windows Millennium
Hibernation
Device Wake-up for Windows 98

▼ **WakeUp White Papers**
CardBus Wakeup Events and Windows 2000
PCI-to-PCI Bridges and CardBus Controllers on
Windows 2000 and Windows Whistler
Power Management for Network Devices
Wake-up on Legacy Devices

▼**Advanced Power Management White Papers**
APM Theory of Operation for Windows 2000
Windows 2000 Professional and APM Support

▼ **Specifications**
ACPI Specification, Revisions 1.0b and 2.0 ▢
Device Class Power Management Reference Specifications
IEEE 1394 Power Management Specification, Version
1.05 ▢
PCI Bus Power Management Interface (PPMI)
Specification, Revision 1.0 ▢
Simple Boot Flag Specification

▼ **Presentations**

Presentations on the ACPI Web Site ▢

WinHEC 2000:
Mobile PC Design
Power Management and System Design