APPENDIX B

Device Identifiers

This appendix lists Compatible IDs for Plug and Play vendor IDs and device IDs.

Note: For non-BIOS enumerated Industry Standard Architecture (ISA) devices, new vendor IDs must be registered by sending e-mail to pnpid@microsoft.com.

Contents

Plug and Play Vendor and Device IDs

All non-BIOS enumerated devices must not use “PNP” in their vendor and device codes. Instead, the vendor must register a three-character vendor code by sending mail to pnpid@microsoft.com. The PNP vendor code is reserved for Microsoft and can be used only when defining a device’s Compatible ID after indicating the device’s Hardware ID in the Plug and Play header.

Use of Compatible IDs is strongly recommended for devices that use inbox device drivers, such as a “Standard PC COM Port” (PNP0500) or “Sound Blaster 16 Sound Device” (PNPB003).

The following example output of a Plug and Play header from Isolate.exe is provided as a reference for the Microsoft Windows operating system.

```
Vendor ID:      XXXFFFF
Serial Number: 00000001
Checksum (reported): 0x5E
PNP Version:   1.0
Vendor Ver.:   10
Device Description: IDE Port
Device ID:  XXX0001
Doesn't Support I/O Range Checking
Vendor Defined Logical Device Control Registers:
None
Compatible Device ID: PNP0600
Device Description: IDE

Dependent Function 0
⋮
Dependent Function 1
⋮
End of Dependent Functions
```

When the user is installing devices that use this method, a dialog box appears at the beginning of the enumeration sequence to suggest use of the Windows 95 default driver. Windows 95 also provides the option of using a manufacturer-supplied disk in case the user wants to choose a manufacturer-supplied driver.

For multifunction adapters, you should supply an INF file that chooses the appropriate drivers, including default drivers, for all the adapter’s devices. This prevents additional dialog boxes from repeatedly requesting the default driver or a manufacturer’s disk for the remaining devices on the adapter.

When an INF file is used in this manner for default driver selection, it must link the Hardware ID (XXX0000) to the appropriate compatible device driver from the Windows 95 distribution CD or installation discs. If this is not done, Windows 95 will continue to query the user for either the default driver or a new driver, thus defeating the purpose of using the INF file in this way.

Generic Windows Device IDs

Many devices, such as the interrupt controller or the keyboard controller, have no standard EISA ID. Also, a set of compatible devices, such as video graphics array (VGA) and Super VGA (SVGA), are not actually devices, but define a compatibility hardware subset. Yet another set of IDs needs to be used to identify buses.

Microsoft has reserved an EISA prefix (PNP) to identify various devices that do not have existing EISA IDs. Microsoft also uses PNP to define compatibility devices. The IDs are defined in the following tables.

Device ID Ranges

ID range	Category
PNP0xxx	System devices
PNP8xxx	Network adapters
PNPAxxx	Small computer system interface (SCSI), proprietary CD adapters
PNPBxxx	Sound, video capture, multimedia
PNPCxxx–Dxxx	Modems

The following obsolete device ID is provided only for compatibility with earlier device ID lists.

Device ID	Description
PNP0802	Microsoft Windows Sound System-compatible device (obsolete; use PNPB0xx instead)

Interrupt Controllers

Device ID	Description
PNP0000	AT interrupt controller
PNP0001	EISA interrupt controller
PNP0002	MCA interrupt controller
PNP0003	Advanced Protocol Interrupt Controller (APIC)
PNP0004	Cyrix SLiC MP interrupt controller

Timers

Device ID	Description
PNP0100	AT timer
PNP0101	EISA timer
PNP0102	MCA timer

DMA

Device ID	Description
PNP0200	AT direct memory access (DMA) controller
PNP0201	EISA DMA controller
PNP0202	MCA DMA controller

Keyboards

Device ID	Description
PNP0300	IBM PC/XT keyboard controller (83-key)
PNP0301	IBM PC/AT keyboard controller (86-key)
PNP0302	IBM PC/XT keyboard controller (84-key)
PNP0303	IBM Enhanced (101/102-key, PS/2 mouse support)
PNP0304	Olivetti keyboard (83-key)
PNP0305	Olivetti keyboard (102-key)
PNP0306	Olivetti keyboard (86-key)
PNP0307	Microsoft Windows keyboard
PNP0308	General Input Device Emulation Interface (GIDEI) legacy

Continued

Keyboards *(continued)*

Device ID	Description
PNP0309	Olivetti keyboard (A101/102-key)
PNP030A	AT&T 302 keyboard
PNP030B	Reserved by Microsoft
PNP0320	Japanese keyboard A01 (106-key)
PNP0321	Japanese keyboard (101-key)
PNP0322	Japanese AX keyboard
PNP0323	Japanese keyboard 002/003 (106-key)
PNP0324	Japanese keyboard 001 (106-key)
PNP0325	Japanese Toshiba desktop keyboard
PNP0326	Japanese Toshiba laptop keyboard
PNP0327	Japanese Toshiba notebook keyboard
PNP0340	Korean keyboard (84-key)
PNP0341	Korean keyboard (86-key)
PNP0342	Korean enhanced keyboard
PNP0343	Korean enhanced keyboard 101b
PNP0343	Korean enhanced keyboard 101c
PNP0344	Korean enhanced keyboard 103

Parallel Devices

Device ID	Description
PNP0400	Standard LPT port
PNP0401	Extended capabilities port (ECP) printer port

Serial Devices

Device ID	Description
PNP0500	Standard PC COM port
PNP0501	16550A-compatible COM port
PNP0502	Multiport serial device (non-intelligent 16550)
PNP0510	Generic IrDA-compatible device
PNP0511	Generic IrDA-compatible device

Disk Controllers

Device ID	Description
PNP0600	Generic ESDI/IDE/ATA-compatible hard disk controller
PNP0601	Plus Hardcard II
PNP0602	Plus Hardcard IIXL/EZ
PNP0603	Generic Integrated Device Electronics (IDE) supporting Device Bay specifications
PNP0700	PC standard floppy disk controller (FDC)
PNP0701	Standard FDC supporting Device Bay specification

Display Adapters

Device ID	Description
PNP0900	VGA compatible
PNP0901	Video Seven VRAM/VRAM II/1024i
PNP0902	8514/A compatible
PNP0903	Trident VGA
PNP0904	Cirrus Logic laptop VGA
PNP0905	Cirrus Logic VGA
PNP0906	Tseng ET4000
PNP0907	Western Digital VGA
PNP0908	Western Digital laptop VGA
PNP0909	S3 Inc. 911/924
PNP090A	ATI Ultra Pro/Plus (Mach 32)
PNP090B	ATI Ultra (Mach 8)
PNP090C	XGA compatible
PNP090D	ATI VGA Wonder
PNP090E	Weitek P9000 graphics adapter
PNP090F	Oak Technology VGA
PNP0910	Compaq QVision
PNP0911	XGA/2
PNP0912	Tseng Labs W32/W32i/W32p
PNP0913	S3 Inc. 801/928/964
PNP0914	Cirrus Logic 5429/5434 (memory-mapped)

Continued

Display Adapters *(continued)*

Device ID	Description
PNP0915	Compaq Advanced VGA (AVGA)
PNP0916	ATI Ultra Pro Turbo (Mach 64)
PNP0917	Reserved by Microsoft
PNP0918	Matrox MGA
PNP0919	Compaq QVision 2000
PNP091A	Tseng W128
PNP0930	Chips & Technologies SVGA
PNP0931	Chips & Technologies Accelerator
PNP0940	NCR 77c22e SVGA
PNP0941	NCR 77c32blt
PNP09FF	Plug and Play monitors (VESA display data channel [DDC])

Peripheral Buses

Device ID	Description
PNP0A00	ISA bus
PNP0A01	EISA bus
PNP0A02	MCA bus
PNP0A03	Peripheral Component Interconnect (PCI) bus
PNP0A04	VESA/VL-bus
PNP0A05	Generic Advanced Configuration and Power Interface (ACPI) bus
PNP0A06	Generic ACPI Extended I/O (EIO) bus

Real-Time Clock, BIOS, and System Board Devices

Device ID	Description
PNP0800	AT-style speaker sound
PNP0B00	AT real-time clock
PNP0C00	Plug and Play BIOS (only created by the ROOT enumerator)
PNP0C01	System board
PNP0C02	General ID for reserving resources required by Plug and Play system board registers (not specific to a particular device)
PNP0C03	Plug and Play BIOS event notification interrupt

Continued

Real-Time Clock, BIOS, and System Board Devices *(continued)*

Device ID	Description
PNP0C04	Math co-processor
PNP0C05	Advanced Power Management (APM) BIOS (version-independent)
PNP0C06	Reserved for identification of early Plug and Play BIOS implementation
PNP0C07	Reserved for identification of early Plug and Play BIOS implementation
PNP0C08	ACPI system board hardware
PNP0C09	ACPI embedded controller
PNP0C0A	ACPI control method battery
PNP0C0B	ACPI fan
PNP0C0C	ACPI power-button device
PNP0C0D	ACPI lid device
PNP0C0E	ACPI sleep-button device
PNP0C0F	PCI interrupt link device
PNP0C10	ACPI system indicator device
PNP0C11	ACPI thermal zone
PNP0C12	Device Bay Controller (DBC)
PNP0C13	Plug and Play BIOS (used when ACPI mode cannot be used)

PCMCIA Controller Chip Sets

Device ID	Description
PNP0E00	Intel 82365-compatible PCMCIA controller
PNP0E01	Cirrus Logic CL-PD6720 PCMCIA controller
PNP0E02	VLSI VL82C146 PCMCIA controller
PNP0E03	Intel 82365-compatible CardBus controller

Mouse

Device ID	Description
PNP0F00	Microsoft bus mouse
PNP0F01	Microsoft serial mouse
PNP0F02	Microsoft InPort mouse
PNP0F03	Microsoft PS/2-style mouse
PNP0F04	Mouse Systems mouse

Continued

Mouse *(continued)*

Device ID	Description
PNP0F05	Mouse Systems 3-button mouse (COM2)
PNP0F06	Genius mouse (COM1)
PNP0F07	Genius mouse (COM2)
PNP0F08	Logitech serial mouse
PNP0F09	Microsoft BallPoint serial mouse
PNP0F0A	Microsoft Plug and Play mouse
PNP0F0B	Microsoft Plug and Play BallPoint mouse
PNP0F0C	Microsoft-compatible serial mouse
PNP0F0D	Microsoft InPort-compatible mouse
PNP0F0E	Microsoft-compatible PS/2-style mouse
PNP0F0F	Microsoft Serial BallPoint-compatible mouse
PNP0F10	Texas Instruments QuickPort mouse
PNP0F11	Microsoft-compatible bus mouse
PNP0F12	Logitech PS/2-style mouse
PNP0F13 [1]	PS/2 port for PS/2-style mouse
PNP0F14	Microsoft Kids mouse
PNP0F15	Logitech bus mouse
PNP0F16	Logitech SWIFT device
PNP0F17	Logitech-compatible serial mouse
PNP0F18	Logitech-compatible bus mouse
PNP0F19	Logitech-compatible PS/2-style mouse
PNP0F1A	Logitech-compatible SWIFT device
PNP0F1B	HP Omnibook mouse
PNP0F1C	Compaq LTE Trackball PS/2-style mouse
PNP0F1D	Compaq LTE Trackball serial mouse
PNP0F1E	Microsoft Kids Trackball mouse
PNP0F1F	Reserved by Microsoft Input Device Group
PNP0F20	Reserved by Microsoft Input Device Group
PNP0F21	Reserved by Microsoft Input Device Group
PNP0F22	Reserved by Microsoft Input Device Group
PNP0F23	Reserved by Microsoft Input Device Group
PNP0FFF	Reserved by Microsoft Systems

[1] The system BIOS should report the PS/2 port, not which type of mouse is connected to that port.

Network Adapters

Device ID	Description
PNP8001	Novell/Anthem NE3200
PNP8004	Compaq NE3200
PNP8006	Intel EtherExpress/32
PNP8008	HP Ethertwist EISA LAN Adapter/32 (HP27248A)
PNP8065	Ungermann-Bass NIUps or NIUps/EOTP
PNP8072	DEC (DE211) Etherworks MC/TP
PNP8073	DEC (DE212) Etherworks MC/TP_BNC
PNP8078	DCA 10-MB MCA
PNP8074	HP MC LAN Adapter/16 TP (PC27246)
PNP80C9	IBM Token Ring
PNP80CA	IBM Token Ring II
PNP80CB	IBM Token Ring II/Short
PNP80CC	IBM Token Ring 4/16-MB
PNP80D3	Novell/Anthem NE1000
PNP80D4	Novell/Anthem NE2000
PNP80D5	NE1000 compatible
PNP80D6	NE2000 compatible
PNP80D7	Novell/Anthem NE1500T
PNP80D8	Novell/Anthem NE2100
PNP80DD	SMC ARCNETPC
PNP80DE	SMC ARCNET PC100, PC200
PNP80DF	SMC ARCNET PC110, PC210, PC250
PNP80E0	SMC ARCNET PC130/E
PNP80E1	SMC ARCNET PC120, PC220, PC260
PNP80E2	SMC ARCNET PC270/E
PNP80E5	SMC ARCNET PC600W, PC650W
PNP80E7	DEC DEPCA
PNP80E8	DEC (DE100) EtherWorks LC
PNP80E9	DEC (DE200) EtherWorks Turbo

Continued

Network Adapters *(continued)*

Device ID	Description
PNP80EA	DEC (DE101) EtherWorks LC/TP
PNP80EB	DEC (DE201) EtherWorks Turbo/TP
PNP80EC	DEC (DE202) EtherWorks Turbo/TP_BNC
PNP80ED	DEC (DE102) EtherWorks LC/TP_BNC
PNP80EE	DEC EE101 (built-in)
PNP80EF	DECpc 433 WS (built-in)
PNP80F1	3Com EtherLink Plus
PNP80F3	3Com EtherLink II or IITP (8-bit or 16-bit)
PNP80F4	3Com TokenLink
PNP80F6	3Com EtherLink 16
PNP80F7	3Com EtherLink III
PNP80F8	3Com generic EtherLink Plug and Play device
PNP80FB	Thomas-Conrad TC6045
PNP80FC	Thomas-Conrad TC6042
PNP80FD	Thomas-Conrad TC6142
PNP80FE	Thomas-Conrad TC6145
PNP80FF	Thomas-Conrad TC6242
PNP8100	Thomas-Conrad TC6245
PNP8105	DCA 10-MB
PNP8106	DCA 10-MB Fiber Optic
PNP8107	DCA 10-MB Twisted Pair
PNP8113	Racal NI6510
PNP811C	Ungermann-Bass NIUpc
PNP8120	Ungermann-Bass NIUpc/EOTP
PNP8123	SMC StarCard PLUS (WD/8003S)
PNP8124	SMC StarCard PLUS with on-board hub (WD/8003SH)
PNP8125	SMC EtherCard PLUS (WD/8003E)
PNP8126	SMC EtherCard PLUS with boot ROM socket (WD/8003EBT)
PNP8127	SMC EtherCard PLUS with boot ROM socket (WD/8003EB)

Continued

Network Adapters *(continued)*

Device ID	Description
PNP8128	SMC EtherCard PLUS TP (WD/8003WT)
PNP812A	SMC EtherCard PLUS 16 with boot ROM socket (WD/8013EBT)
PNP812D	Intel EtherExpress 16 or 16TP
PNP812F	Intel TokenExpress 16/4
PNP8130	Intel TokenExpress MCA 16/4
PNP8132	Intel EtherExpress 16 (MCA)
PNP8137	Artisoft AE-1
PNP8138	Artisoft AE-2 or AE-3
PNP8141	Amplicard AC 210/XT
PNP8142	Amplicard AC 210/AT
PNP814B	Everex SpeedLink /PC16 (EV2027)
PNP8155	HP PC LAN Adapter/8 TP (HP27245)
PNP8156	HP PC LAN Adapter/16 TP (HP27247A)
PNP8157	HP PC LAN Adapter/8 TL (HP27250)
PNP8158	HP PC LAN Adapter/16 TP Plus (HP27247B)
PNP8159	HP PC LAN Adapter/16 TL Plus (HP27252)
PNP815F	National Semiconductor Ethernode *16AT
PNP8160	National Semiconductor AT/LANTIC Ethernode 16-AT3
PNP816A	NCR Token-Ring 4-MB ISA
PNP816D	NCR Token-Ring 16/4-MB ISA
PNP8191	Olicom 16/4 Token Ring Adapter
PNP81C3	SMC EtherCard PLUS Elite (WD/8003EP)
PNP81C4	SMC EtherCard PLUS 10T (WD/8003W)
PNP81C5	SMC EtherCard PLUS Elite 16 (WD/8013EP)
PNP81C6	SMC EtherCard PLUS Elite 16T (WD/8013W)
PNP81C7	SMC EtherCard PLUS Elite 16 Combo (WD/8013EW or 8013EWC)
PNP81C8	SMC EtherElite Ultra 16
PNP81E4	Pure Data PDI9025-32 (Token Ring)
PNP81E6	Pure Data PDI508+ (ArcNet)
PNP81E7	Pure Data PDI516+ (ArcNet)
PNP81EB	Proteon Token Ring (P1390)
PNP81EC	Proteon Token Ring (P1392)

Continued

Network Adapters *(continued)*

Device ID	Description
PNP81ED	Proteon ISA Token Ring (1340)
PNP81EE	Proteon ISA Token Ring (1342)
PNP81EF	Proteon ISA Token Ring (1346)
PNP81F0	Proteon ISA Token Ring (1347)
PNP81FF	Cabletron E2000 Series DNI
PNP8200	Cabletron E2100 Series DNI
PNP8209	Zenith Data Systems Z-Note
PNP820A	Zenith Data Systems NE2000-compatible
PNP8213	Xircom Pocket Ethernet II
PNP8214	Xircom Pocket Ethernet I
PNP821D	RadiSys EXM-10
PNP8227	SMC 3000 Series
PNP8228	SMC 91C2 controller
PNP8231	Advanced Micro Devices AM2100/AM1500T
PNP8263	Tulip NCC-16
PNP8277	Exos 105
PNP828A	Intel 595-based Ethernet
PNP828B	TI2000-style Token Ring
PNP828C	AMD PCNet Family cards
PNP828D	AMD PCNet32 (VL-bus version)
PNP8294	IrDA Infrared NDIS driver (Microsoft-supplied)
PNP82BD	IBM PCMCIA-NIC
PNP82C2	Xircom CE10
PNP82C3	Xircom CEM2
PNP8321	DEC Ethernet (all types)
PNP8323	SMC EtherCard (all types except 8013/A)
PNP8324	ARCNET-compatible
PNP8326	Thomas Conrad (all ARCNET types)
PNP8327	IBM Token Ring (all types)
PNP8385	Remote network access (RNA) driver
PNP8387	RNA point-to-point protocol (PPP) driver
PNP8388	Reserved for Microsoft networking components
PNP8389	Peer IrLAN IR driver (Microsoft-supplied)
PNP8390	Generic network adapter

SCSI and Proprietary CD-ROM Adapters

Device ID	Description
PNPA002	Future Domain 16-700–compatible controller
PNPA003	Panasonic proprietary CD-ROM adapter (SBPro/SB16)
PNPA01B	Trantor 128 SCSI controller
PNPA01D	Trantor T160 SCSI controller
PNPA01E	Trantor T338 Parallel SCSI controller
PNPA01F	Trantor T348 Parallel SCSI controller
PNPA020	Trantor Media Vision SCSI controller
PNPA022	Always IN-2000 SCSI controller
PNPA02B	Sony proprietary CD-ROM controller
PNPA02D	Trantor T13b 8-bit SCSI controller
PNPA02F	Trantor T358 Parallel SCSI controller
PNPA030	Mitsumi LU-005 Single Speed CD-ROM controller + drive
PNPA031	Mitsumi FX-001 Single Speed CD-ROM controller + drive
PNPA032	Mitsumi FX-001 Double Speed CD-ROM controller + drive

Sound, Video Capture, and Multimedia

Device ID	Description
PNPB000	Sound Blaster 1.5 sound device
PNPB001	Sound Blaster 2.0 sound device
PNPB002	Sound Blaster Pro sound device
PNPB003	Sound Blaster 16 sound device
PNPB004	Thunderboard-compatible sound device
PNPB005	Adlib-compatible frequency modulation (FM) synthesizer device
PNPB006	MPU401 compatible
PNPB007	Microsoft Windows Sound System-compatible sound device
PNPB008	Compaq Business Audio
PNPB009	Plug and Play Microsoft Windows Sound System device
PNPB00A	MediaVision Pro Audio Spectrum (Trantor SCSI-enabled, Thunder Chip-disabled)
PNPB00B	MediaVision Pro Audio 3-D

Continued

Sound, Video Capture, and Multimedia *(continued)*

Device ID	Description
PNPB00C	MusicQuest MQX-32M
PNPB00D	MediaVision Pro Audio Spectrum Basic (no Trantor SCSI, Thunder Chip-enabled)
PNPB00E	MediaVision Pro Audio Spectrum (Trantor SCSI-enabled, Thunder Chip-enabled)
PNPB00F	MediaVision Jazz-16 chip set (OEM versions)
PNPB010	Auravision VxP500 chip set–Orchid Videola
PNPB018	MediaVision Pro Audio Spectrum 8-bit
PNPB019	MediaVision Pro Audio Spectrum Basic (no Trantor SCSI, Thunder chip-disabled)
PNPB020	Yamaha OPL3-compatible FM synthesizer device
PNPB02F	Joystick/gameport

Modems

Device ID	Description
PNPC000	Compaq 14400 modem (TBD)
PNPC001	Compaq 2400/9600 modem (TBD)