

PLUG N PLAY OPERATING SYSTEM

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Abstract— As each technical user is needed to have Operating Systems like Windows XP/Windows 7 in his/her pendrive because many computers, tablets, laptops & i-pads, do not have drives. Our aim here is to make start PC with the help of flash drives. These flash drives are used here to start systems which donot have any type of Operating System or having corrupt or damaged operating system.

Keywords—Flash drive, USB, PnP, BIOS, ISO image

I. INTRODUCTION

Plug and Play (PnP) is a capability developed by Microsoft for its Windows 95 and later operating systems that gives users the ability to plug a device into a computer and have the computer recognize that the device is there. The user doesn't have to tell the computer In many earlier computer systems, the user was required to explicitly tell the operating system when a new device had been added. Microsoft made Plug and Play a selling point for its Windows operating systems. A similar capability had long been built into Macintosh computers. With Microsoft's participation, Plug and Play has been replaced by an open, industry standard, Universal Plug and Play (UPnP), which uses Internet protocols for seamless device plug-in.

II. PLUG-AND-PLAY BIOS

The role of the traditional BIOS was to manage the essential devices in the system: the hard drive, floppy drive, video, parallel and serial ports, and keyboard and system timer. Other devices were left to fight for the remaining IRQs and other hardware resources, "System Components and Configuration." When Windows 95 was introduced, the role of the BIOS changed dramatically. To support Windows 95, the Plug-and-Play BIOS was introduced, changing how cards were installed and

managed. Table 1.1 compares a Plug-and-Play (PnP) BIOS to a conventional BIOS.

Table 1.1 Plug-and-Play BIOS Versus Conventional BIOS Table :

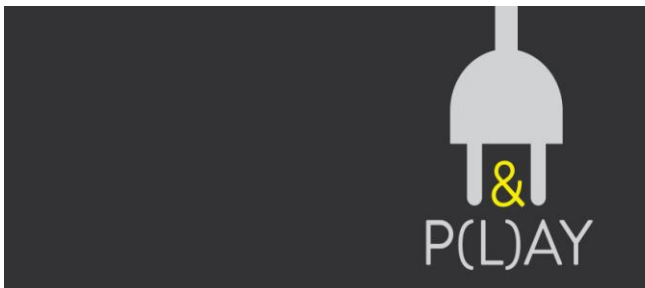
Parameters	Conventional BIOS	Plug-and Play BIOS
Hardware configuration devices and video only	Motherboard-based	All PnP devices as well as motherboard devices
Configuration type	Static (fixed settings)	Dynamic (settings can be altered as various devices are installed)
Configuration	Manual configuration	Manual, BIOS-assisted, or operating method system assisted
Operating system relationship to BIOS	Accepts all BIOS settings without alteration	Receives PnP device information from BIOS and can alter settings as required

III. PLUG N PLAY SERVICE

The Plug and Play service has three different levels of operation. At the lowest level, the BIOS, operating system, and devices are non-Plug and Play, requiring manual configuration of each device. This level of operation requires users to know and understand the intricate details



that are involved when installing a new component in a system, such as allocating IRQs, memory addresses, and other systems resources. When a new device is added to the system, Plug and Play will detect it, install it, and configure the system resources and driver software for the component. The user doesn't need to do anything but plug the device in and use it after it has been dynamically detected and configured. This is Plug and Play at its best, and when it works, it definitely makes everybody's life much easier.



Plug and Play in Microsoft Windows Server 2003 with Service Pack 1 (SP1) provides the following functionality:

- Detects a Plug and Play device and determines its hardware resource requirements and device identification number (Plug and Play ID).
- Locates an appropriate device driver for newly installed devices.
- Allocates hardware resources.
- Dynamically loads, initializes, and unloads drivers.
- Notifies other drivers and applications when a new device is available.
- In conjunction with power management, handles stop and start processes for devices during hibernation, standby, and startup and shutdown operations.
- Supports a wide range of device types.

IV. HOW TO MAKE

To make windows 7 bootable usb drive, unfortunately, simply copying OS in pendrive won't do any work. An ISO file of that Operating System should be properly mount to a flash drive also. It creates bootable window 7 in pendrive. If you have DVD of window 7 then first create an iso file from that DVD using NERO.

V. ESTIMATED TIME

Getting the Windows 7 installation files onto a flash drive or alternative external USB device can take between fifteen minutes to half-hour, looking on what format the copy of Windows 7 is and the way quick the systemis.

VI. INITIAL CONSIDERATIONS

- A flash drive (4 GB or more)
- A Windows 7 DVD or Windows 7 ISO file
- Access to a operating pc, with a DVD player.

VII. CONCLUSION

Plug and Play will make upgrading our computer so easy that even a child can easily do it. When Windows 95 was first released, Microsoft wanted us to believe that the Plug and Play service (also known as Plug and Pray) would end all of our device driver problems and it did too. This concept is meant to end the days of manual device configuration and driver conflicts, providing nontechnical computer users with the ability to easily upgrade their computer systems. The goal was to make ON a PC having no Operating System; once a user plug any usb in, anyone can use it.

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