Aptio™ Text Setup Environment (TSE) User Manual

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Purpose

This document is intended to provide the information about the features and use of the product Aptio™ Text Setup Environment (TM).

Audience

The intended audiences are BIOS developers, Generic Chipset Porting Engineers, OEM Porting Engineers, and AMI OEM Customers.

Date	Rev	Description
Mar 31, 2005	0.01	Initial Internal Release
Apr 29 2005	0.10	Initial Public Release
Jun 10, 2008	0.20	Updated corporate address and screenshots.
Jun 19, 2008	0.30	Changes accepted
Sep 13, 2010	0.40	Updated the Document
Oct 11,2010	1.00	Updated major version

Chapter 1 Starting Aptio™ TSE

About Aptio™

Aptio™ is AMI's next-generation BIOS firmware based on the UEFI Specifications and the Intel® Platform Innovation Framework for EFI. Aptio™ is specifically designed to address firmware portability and extensibility to future platforms. Along with silicon enabling components, Aptio™ can be expanded using a variety of drivers, development tools, support utilities and pre-boot application solutions.

Aptio™ Text Setup Environment

Aptio™ Text Setup Environment (TSE) is a text-based basic input and output system. The purpose of Aptio™ TSE is to empower the user with complete system control at boot. AMI Text Setup Environment (TSE) provides advance UEFI functionality with a familiar BIOS interface. AMI TSE is an AMI firmware user interface designed to work in conjunction with Aptio™. It is made up of a series of drivers, applications and images, which can be customized according to an OEM's requirements, or can use AMI's default interface.

In Aptio™, as in any firmware project, lack of flash space is always one of the biggest obstacles. One of the goals of Aptio™ is to offer a complete solution in 512 KB of flash ROM. In order to satisfy customers who require small ROM footprint without sacrificing the ability to use setup to configure the system, AMI offers space-optimized setup environment components called AMI Text Setup Environment (TSE).

This document explains the basic navigation of Aptio™ TSE.

Note: This document describes the standard look and feel of the Aptio™ TSE interface. The manufacturer of the hardware has the ability to change any and all of the settings described in this document. Some of the options that are described in this document do not exist on every implementation of Aptio™ TSE. Refer to the manufacturer documentation for proper use of their implementation of Aptio™ TSE.

TSE's Audiences

AMI TSE is used effectively by:

- Computer manufacturers
- End users
- Repair technicians
- Design engineers
- Technical Support Personnel

Starting Aptio™ TSE

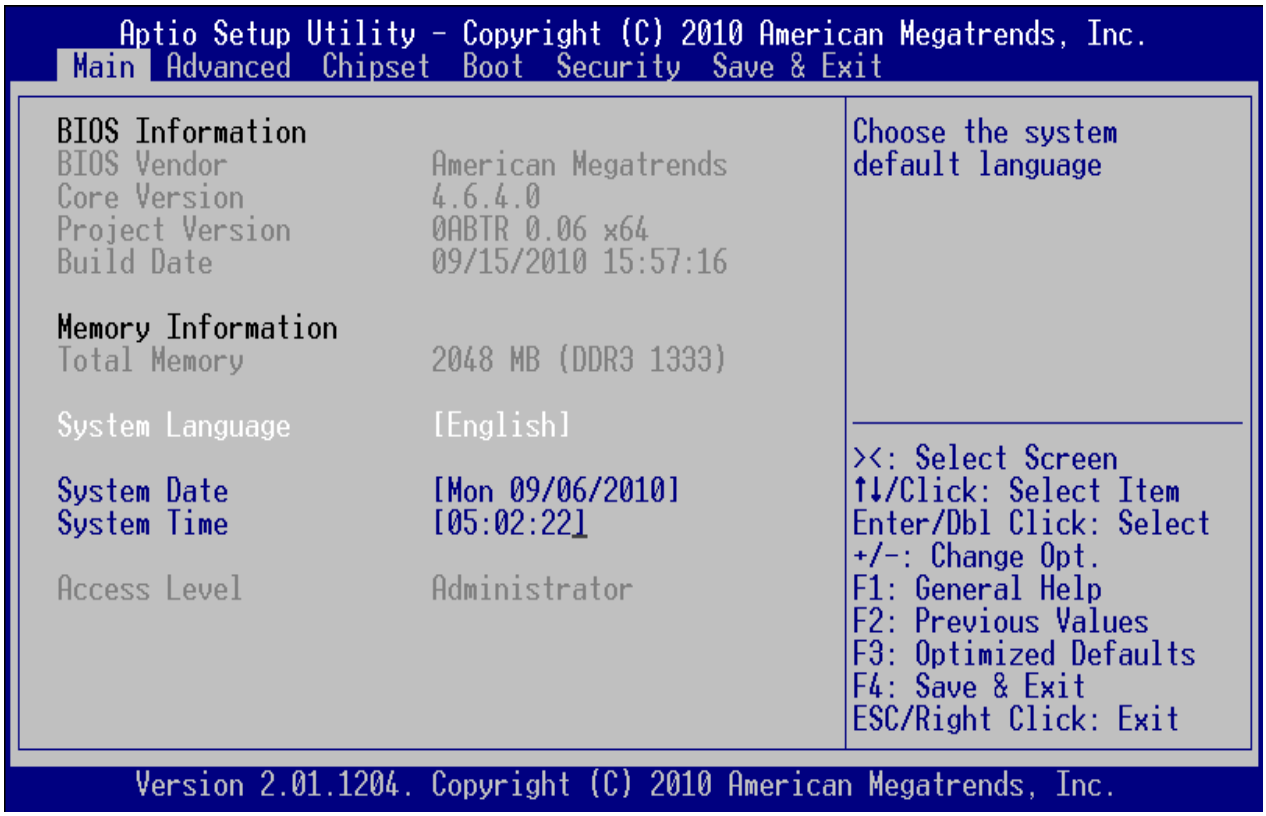
To enter the Aptio™ TSE screens, follow the steps outlined below:

Step	Description
1	Power on the motherboard
2	Press the <Delete> key on your keyboard when you see the following text prompt: `Press DEL or F2 to enter Setup`
3	After selecting <Delete> key, the Aptio™ TSE main BIOS setup menu is displayed. You can access the other setup screens from the main BIOS setup menu, such as the Chipset and Power menus.

Note: In most cases, the <Delete> key is used to invoke the Aptio™ TSE screen. There are a few cases where other keys are used, such as <F1>, <F2>, and so on. The user can press the <TAB> key during boot to switch from the boot splash screen (logo) to see the keystroke messages.

Aptio™ TSE Setup Menu

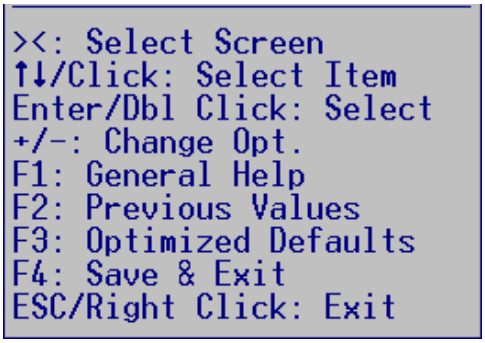
The Aptio™ TSE BIOS setup menu is the first screen that you can navigate. Each BIOS setup menu option is described in this user's guide.



Note: The motherboard manufacturer retains the option to modify standard strings provided in Aptio™ or add custom options. Because of this, many screen shots in this manual are different from your Aptio™ TSE screen.

Navigation

The Aptio™ TSE keyboard-based navigation can be accomplished using a combination of the keys, (<FUNCTION> keys, <ENTER>, <ESC>, <ARROW> keys, etc.).

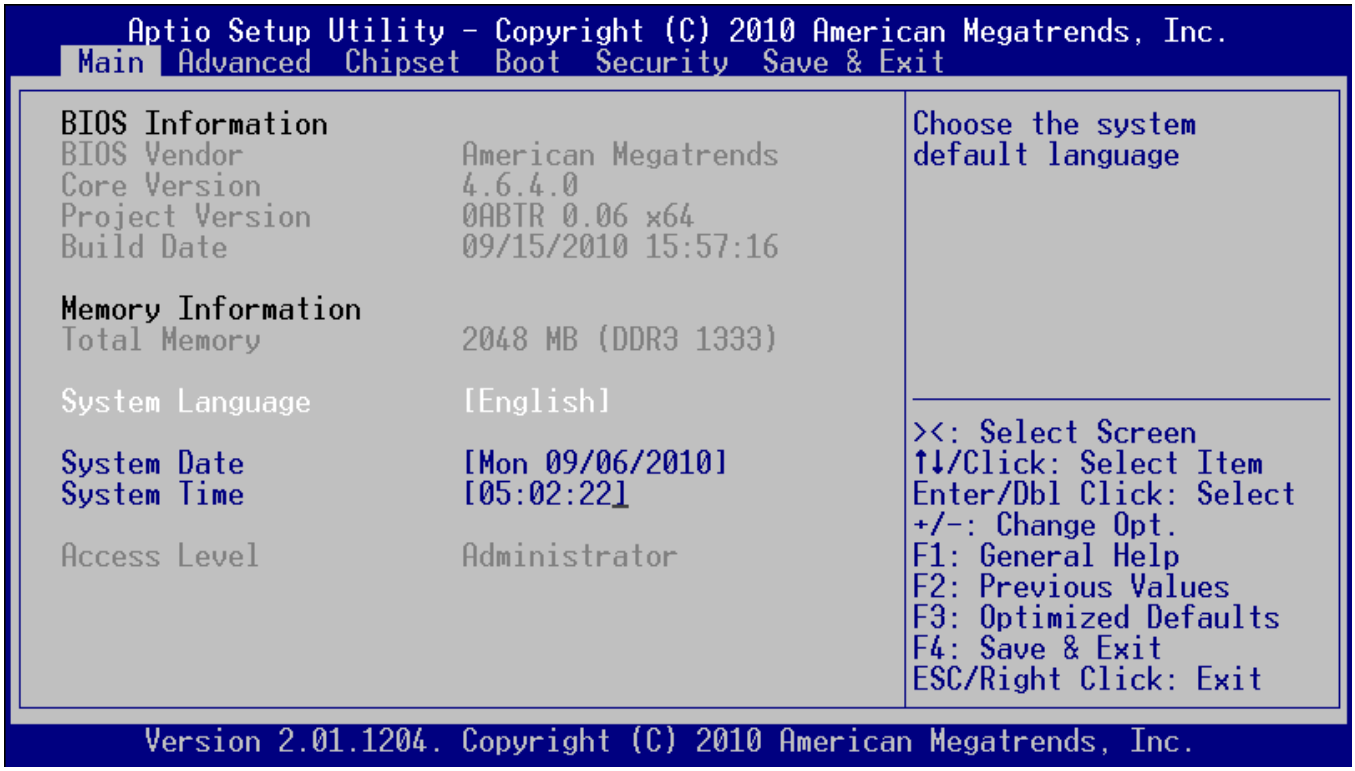


Key	Description
ENTER	The *Enter* key allows the user to select an option to edit its value or access a sub menu.
→← Left/Right	The *Left and Right* <Arrow> keys allow you to select an Aptio™ TSE screen. For example: Main screen, Advanced screen, Chipset screen, and so on.
↑↓ Up/Down	The *Up and Down* <Arrow> keys allow you to select an Aptio™ TSE item or sub-screen.
+- Plus/Minus	The *Plus and Minus* <Arrow> keys allow you to change the field value of a particular setup item. For example: Date and Time.
Tab	The <Tab> key allows you to select Aptio™ TSE fields.
F1	This key displays the general help window for the user.
F2	This key enables users to load pervious values in TSE
F3	This key enables users to load optimized default values in TSE
F4	This key enables users to save the current configuration and exit TSE
ESC	The <Esc> key allows you to discard any changes you have made and exit the Aptio™ TSE. Press the <Esc> key to exit the Aptio™ TSE without saving your changes. The following screen will appear: Press the <Enter> key to discard changes and exit. You can also use the <Arrow> key to select *Cancel* and then press the <Enter> key to abort this function and return to the previous screen.
Function keys	When other function keys become available, they are displayed in the help screen along with their intended function.

Chapter 2 Main Setup

Main Setup

The Main Setup menu shows the following:



BIOS Information

Option	Description
BIOS Vendor	It allow the user to view Information about the Vendor
Core Version	It allows the user to view Core Version.
Compliancy	It allows the user to view UEFI Specification version.
Project Version	It allow the user to view Project version
Built Date and Time	It allow the user to view date and time of the project build.

Memory information

Total memory

This option shows the amount of memory that is installed on the hardware platform

System Language

Language Setup allows the user to configure the language that the user wants to use in Aptio™ GSE. This option allows the user to configure the language that the user wants to use in Aptio™ TSE.

System Date and Time

System Date	This option allows the user to set the date on the system real-time clock RTC. Simply navigate to the month, day, or year and type in the correct numeric value.
System Time	This option allows the user to set the time on the RTC. Simply navigate to the hour, minute, or second and type in the correct numeric value.

Note: The time is in 24-hour format. For example, 5:30 A.M. appears as 05:30:00, and 5:30 P.M. as 17:30:00.

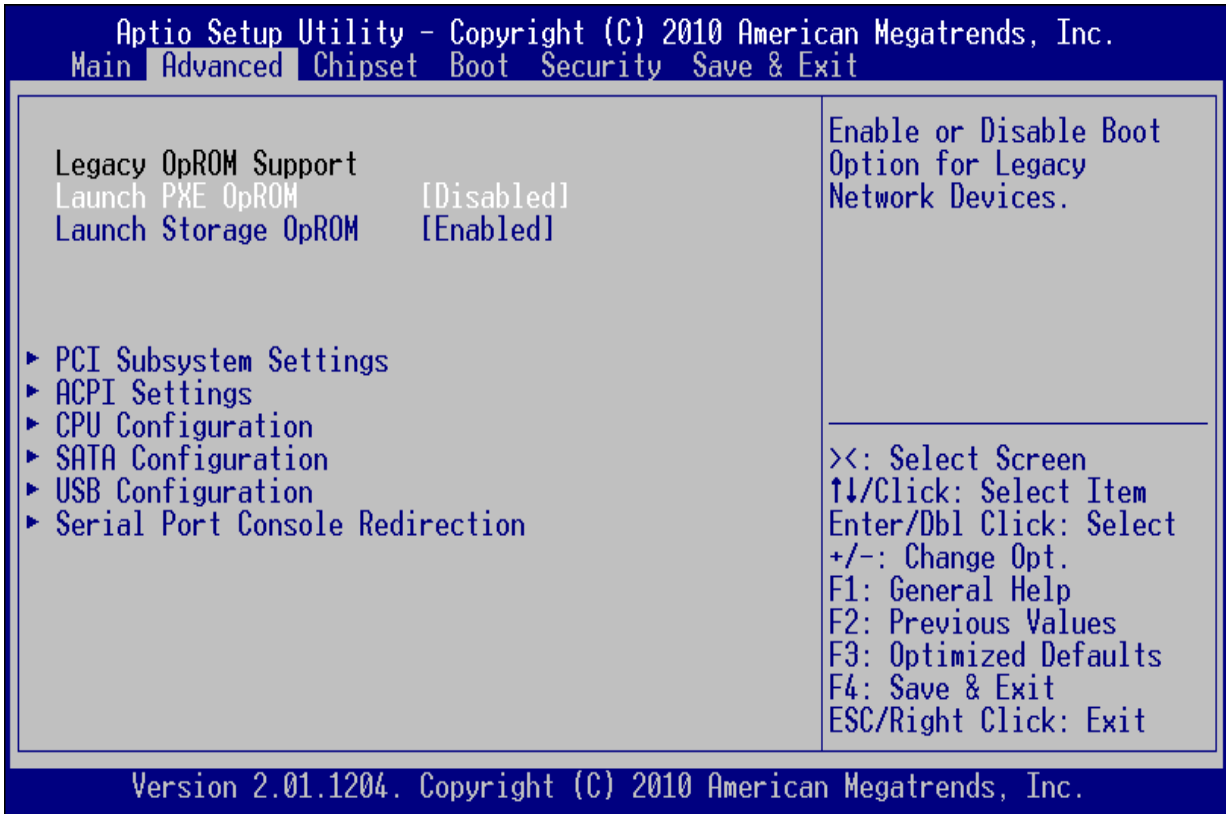
Access Level

This feature enables the user to provide access to the user based on the administration rights, whether the user can be an Administrator or Guest User.

Chapter 3 Advanced Setup

Advanced Setup

Select the *Advanced* menu item from the Aptio™ TSE screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as Processor Configuration, IDE Configuration and SuperIO, to go to the sub menu for that item.



Legacy OpROM Support

Launch PXE OpROM

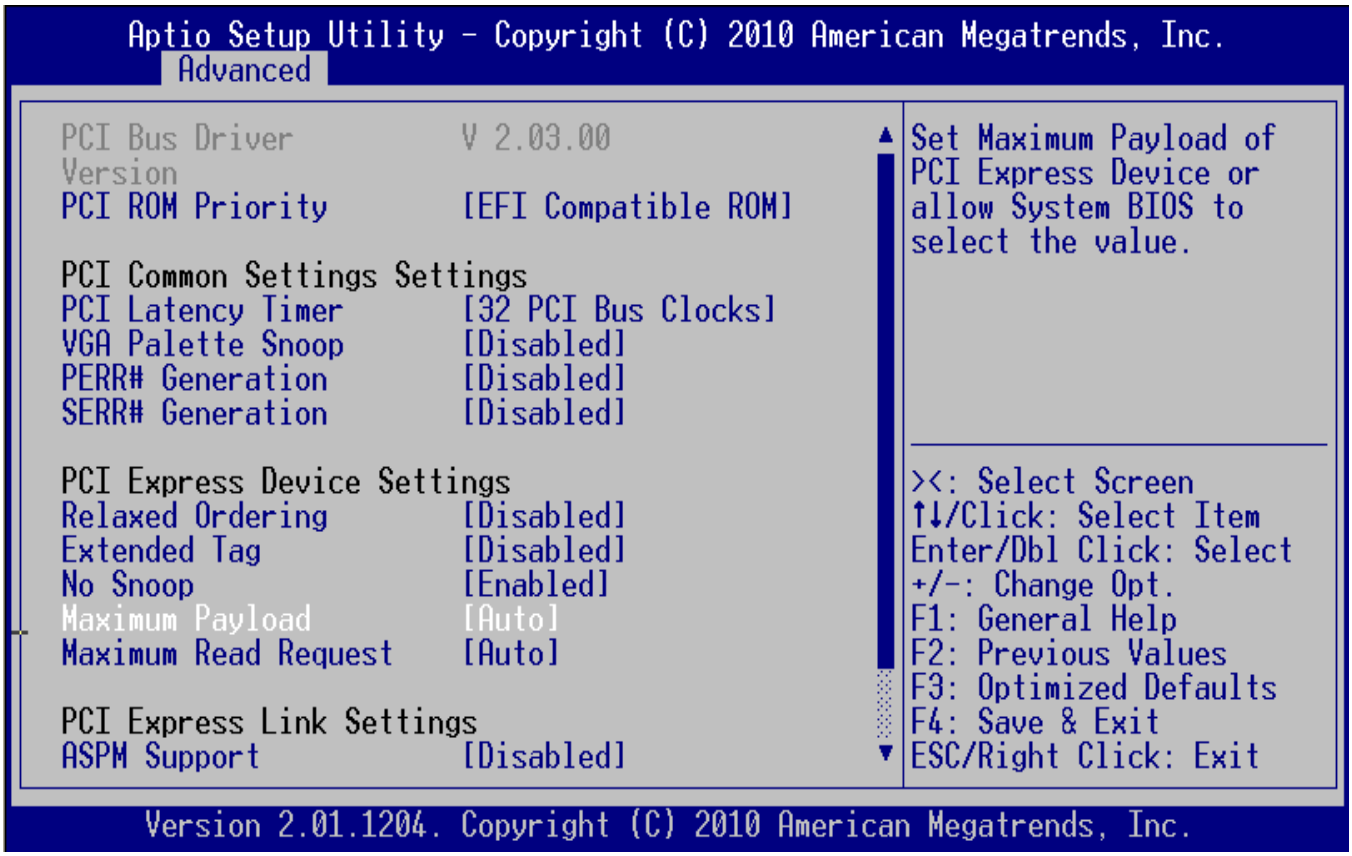
Option	Description
Enable	Set this value to allow the option for Legacy Network Device.
Disable	Set this value to prevent the option for Legacy Network Device.

Launch Storage OpROM

Option	Description
Enable	Set this value to allow the option for Legacy Mass Storage Devices with option ROM
Disable	Set this value to prevent the option for Legacy Mass Storage Devices with option ROM

PCI Subsystem Settings

This option allows the user to view and configure the settings of the PCI Subsystem Settings i.e. PCI, PCI-X and PCI Express settings.

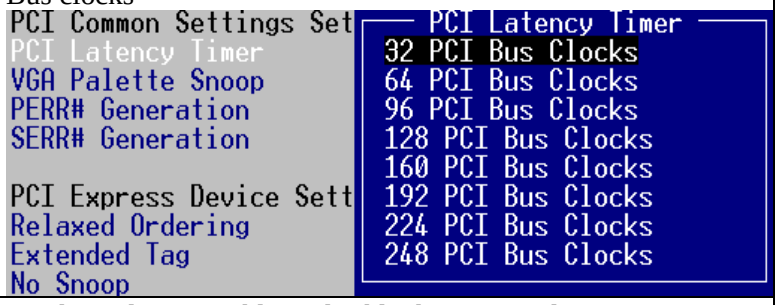


PCI Option ROM Handling

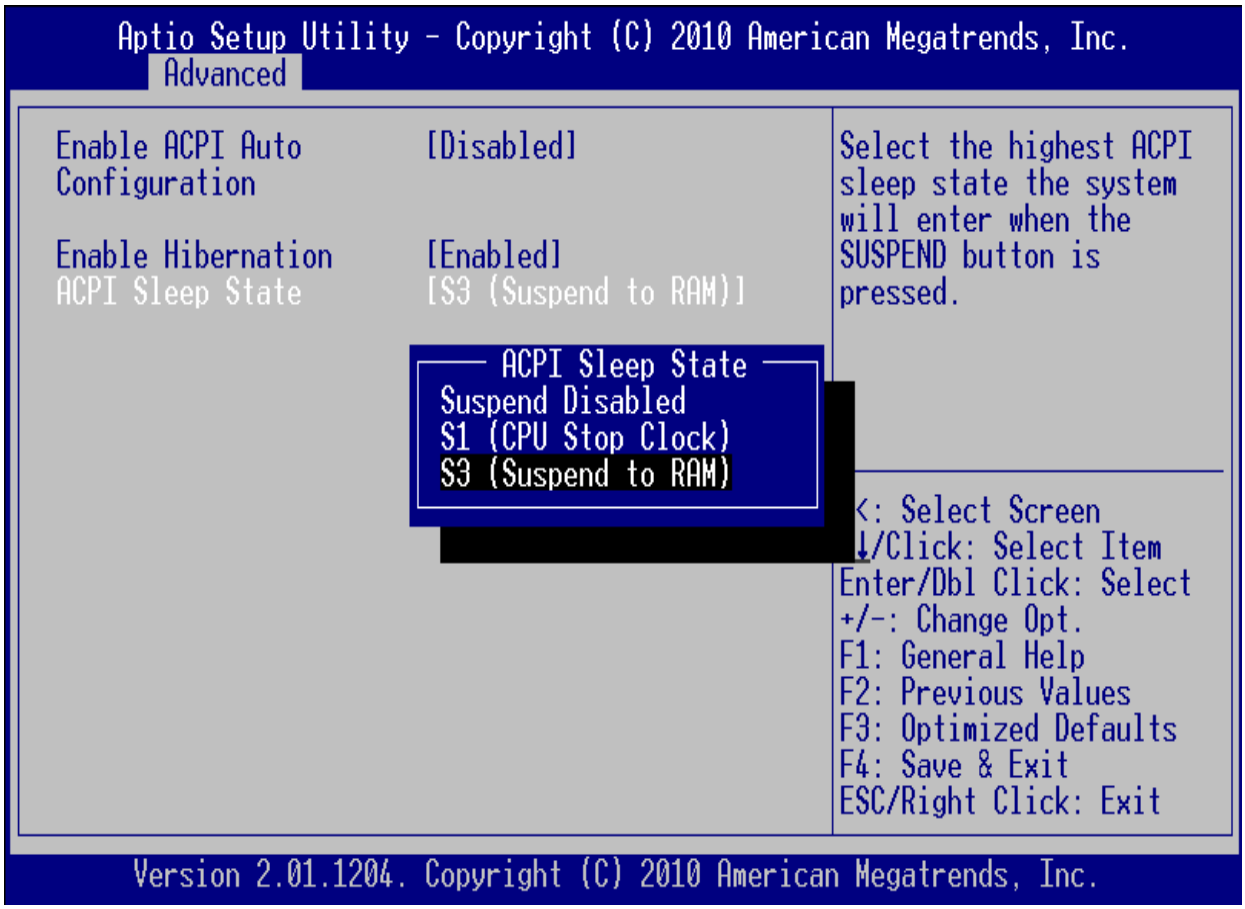
This option allows the user to specify what PCI option ROM to launch in case of multiple options ROMs (Legacy and EFI Compatible) is available.

Option	Description
Legacy ROM	Set this value to launch Legacy ROM
EFI Compatible ROM	Set this value to launch EFI Compatible ROM

PCI Common Settings

Option	Description
PCI Latency Timer	Set this value to change the PCI Bus clocks. Default is 32 PCI Bus clocks 
VGA Palette Snoop	Set this value to enable or disable the VGA Palette snoop. Default is disable
PERR# Generation	Set this value to enable or disable PERR# generation. Default is disable
SERR#	Set this value to enable or disable SERR# generation. Default is disable
PCI Express Settings	Select this option to change PCI Express devices settings.
PCI Express GEN 2 Settings	Select this option to change PCI Express GEN 2 settings.

ACPI Settings

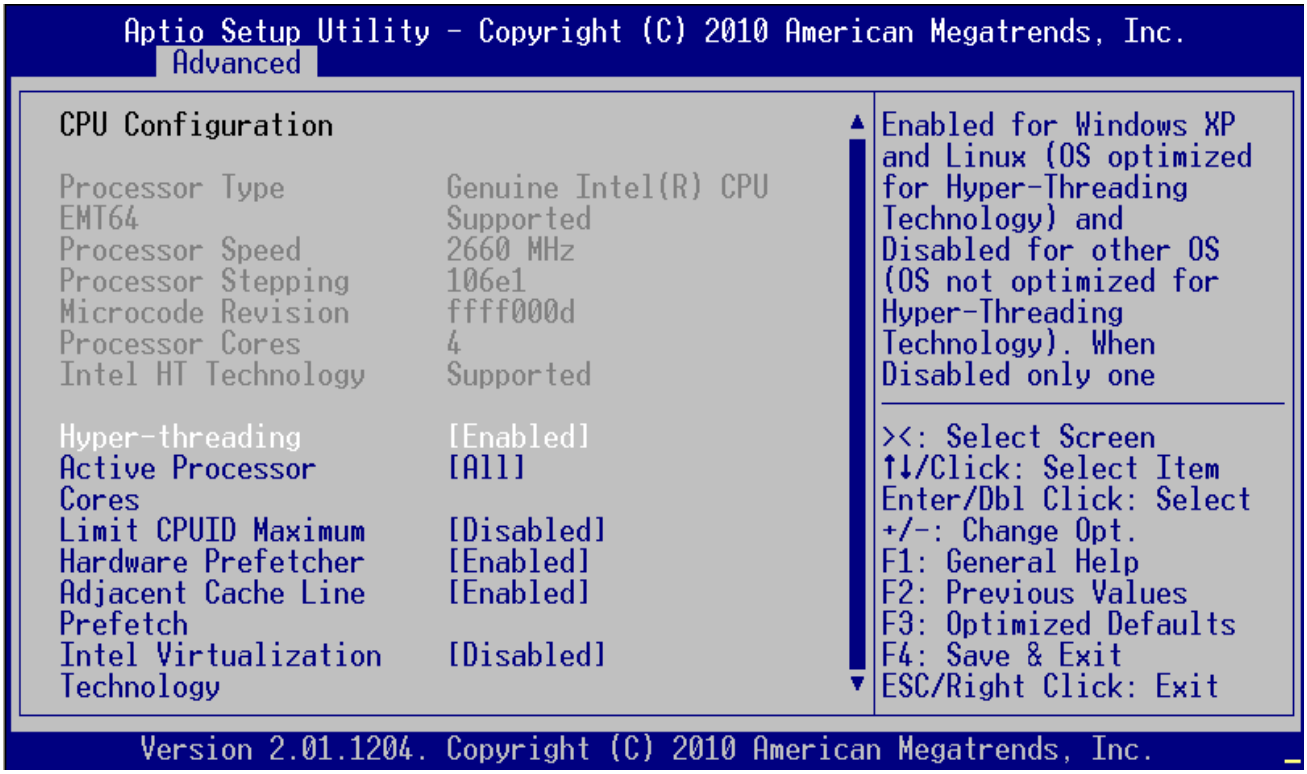


This option allows the user to view and configure the system ACPI parameters.

Option	Description
Enable ACPI Auto Conf	Enable/disable BIOS ACPI Auto Configuration. Default is Disable
Enable Hibernation	Enable/disable system ability to Hibernate(OS/S4 Sleep State) Default is Enable
ACPI Sleep State	Select the highest ACPI sleep state the system will enter when the SUSPEND button is Selected. The Default value is set as S3 (Suspend to RAM). 

CPU Configuration

This option allows the user to view and configure the settings of the CPU installed on the computer system.



Option	Description
Processor Type	This option allows the user to view the information of the CPU installed on the hardware platform.
Processor Speed	This option allows the user to view the speed of the CPU installed on the hardware platform.
System Bus Speed	This option allows the user to view the Front Side Bus (FSB) speed of the CPU.
L2 Cache RAM	This option allows the user to view the amount of L2 Cache on the CPU.
Hyper Threading Technology	This option allows the user to enable or disable the HyperThreading™ support of the Intel® Pentium® 4 HT processor. By default this setting is enabled. This setting should be disabled in Microsoft™ Windows 2000 based systems.
Microcode Revision	This option allows the user to view the Microcode revision information.
Processor Stepping	This option allows the user to view the stepping information of the CPU.
Set Processor Multiplier	This option allows the user to view/modify the setting of the CPU clock multiplier. The Set Processor Multiplier value is multiplied by the CPU FSB to set the operating speed of the CPU. Some CPUs will ignore any value you set, while other CPUs will fail to operate. If your motherboard fails to boot after you have modified this value, simply reset the CMOS.

IDE Configuration

You can use this option to select options for the IDE Configuration Settings.

Use Automatic Mode

This setting allows you to manually configure each controller. Some operating systems do not allow support for more than two controllers.

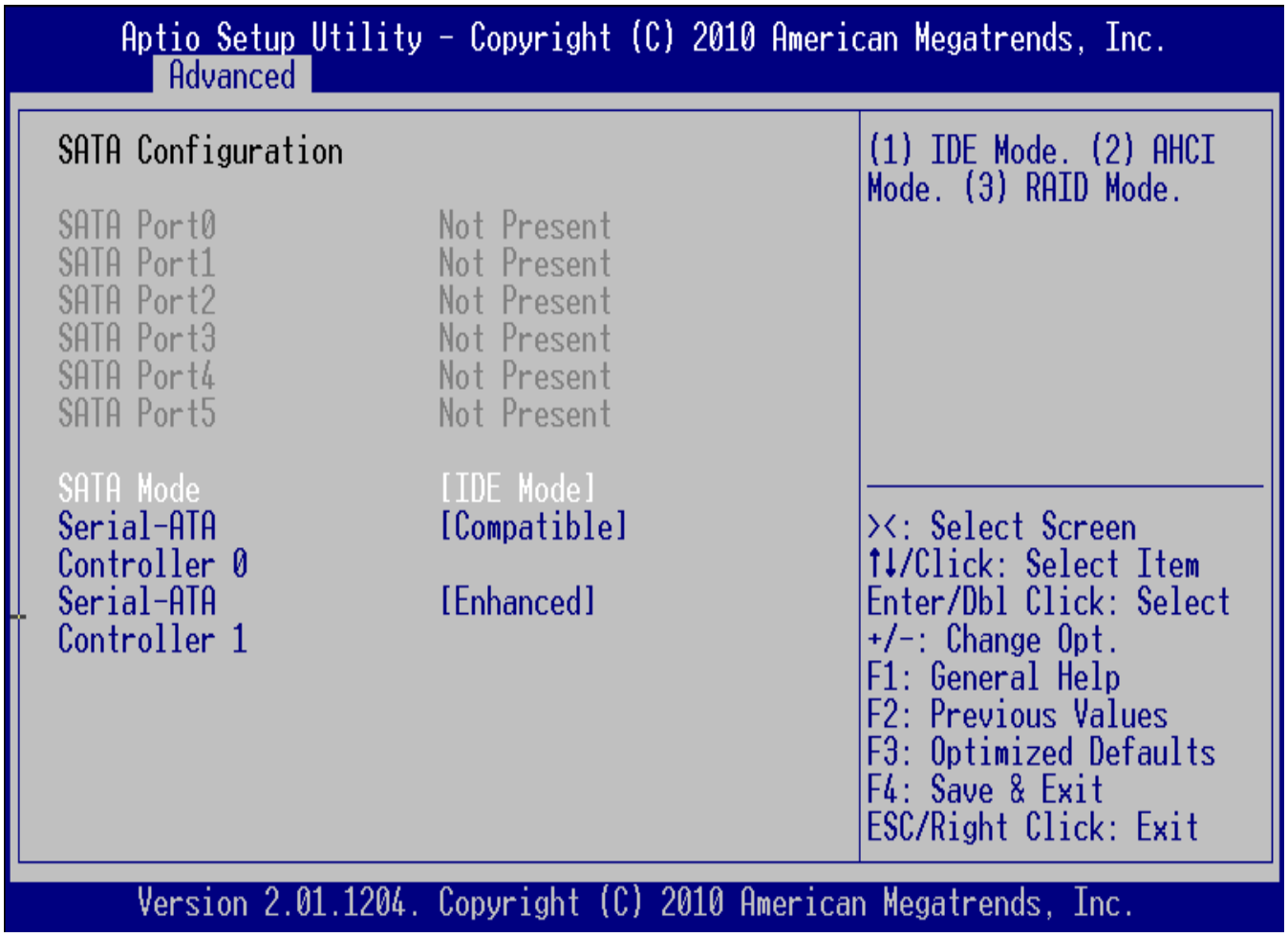
Option	Description
Enable	Set this value to allow automatic configuration of the IDE controller(s). This is the default value.
Disable	Set this value to allow manual configuration of the IDE controller(s).

IDE Mode

Option	Description
Legacy	A controller that operates in legacy mode emulates a legacy IDE controller that is a non-standard extension of the ISA-based IDE controller. In legacy mode, the controller requires two ISA-styles dedicated IRQs (14 and 15) that cannot be shared with other devices. Because legacy mode requires dedicated resources, the ATA controller for the boot device (which is usually integrated in chipsets on the motherboard) is the only controller on a system that is likely to operate in legacy mode.
Native	A controller that operates in native mode acts as a true PCI device that does not require dedicated legacy resources and can be configured anywhere in the system. ATA controllers running in native mode use their PCI interrupt for both channels and can share this interrupt with other devices in the system, like any other PCI device. Add-in ATA controllers generally operate in native mode.

SATA Configuration

This option allows the user to view and configure the settings of the SATA configuration settings.



SATA Mode

This setting allows you to manually configure SATA controller for a particular mode.

Option	Description
Disable	Set this value to disable the SATA mode
IDE Mode	Set this value to change the SATA to IDE mode.
AHCI Mode	Set this value to change the SATA to AHCI mode
RAID	Set this value to change the SATA to RAID mode.

Mode Parameters

The parameters under the different modes are described below,

Serial –ATA Controller 0

This item allows you to enable or disable ATA controller 0

Option	Description
Disabled	Set this value to disable the ATA controller 0
Enhanced	Set this value to enable enhanced ATA controller 0
Compatible	Set this value to enable Compatible ATA controller 0

Serial –ATA Controller 1

This item allows you to enable or disable ATA controller 1

Option	Description
Disabled	Set this value to disable the ATA controller 1
Enhanced	Set this value to enable enhanced ATA controller 1

Serial ATA

This item allows you to turn off or on the onboard SATA.

Option	Description
Disabled	Set this value to prevent the computer system from using the onboard SATA controller.
Enabled	Set this value to allow the computer system to detect the onboard SATA controller. This is the default setting.

Serial ATA Port X

This item specifies the SATA ports used by the onboard SATA controller.

Option	Description
Disabled	Set this value to prevent the computer system from using the onboard SATA port selected.
Enabled	Set this value to allow the computer system to detect the onboard SATA port selected. This is the default setting.

Onboard Primary/Secondary IDE Controller

This item specifies the IDE channels used by the onboard PCI IDE controller.

Option	Description
Disabled	Set this value to prevent the computer system from using the onboard IDE controller selected.
Enabled	Set this value to allow the computer system to detect the onboard IDE controller selected. This is the default setting.

Super IO

This section allows you to configure the system ports information.

Floppy Controller

This option allows you to enable or disable the floppy drive controller on your platform.

Option	Description
Disabled	Set this value to prevent the BIOS from detecting the onboard floppy drive controller.
Enabled	Set this value to allow the BIOS to use the onboard floppy drive controller. This is the default setting.

Floppy Write Protect

This option allows you to enable or disable write-protection of floppy disks.

Option	Description
Disabled	Set this value to prevent writing to floppy disks.
Enabled	Set this value to allow writing to floppy disks. This is the default setting.

Floppy Drive A: and B

Option	Description
Disabled	Set this value to prevent the use of the selected floppy disk drive channel. This option should be set if no floppy disk drive is installed on the specified channel. This is the default setting for *Floppy Drive B.*
360 KB 5 ¼”	Set this value if the floppy disk drive attached to the corresponding channel is a 360 KB 5¼“ floppy disk drive.
1.2 MB 5 ¼”	Set this value if the floppy disk drive attached to the corresponding channel is a 1.2 MB 5¼“ floppy disk drive.
720 KB 3 ½”	Set this value if the floppy disk drive attached to the corresponding channel is a 720 KB 3½“ floppy disk drive.
1.44 MB 3 ½”	Set this value if the floppy disk drive attached to the corresponding channel is a 1.44 MB 3½“ floppy disk drive. This is the default setting for *Floppy Drive A.*

Floppy Drive Seek

Set this option to seek the floppy disk drive during boot up. The Optimal and Fail-Safe setting is *Disabled*.

Option	Description
Disabled	Set this value to prevent the BIOS from seeking the floppy disk drive during boot up. This is the default setting.
Enabled	Set this value to allow the BIOS to seek the floppy disk drive during boot up. This will cause the floppy disk drive to temporarily power on during POST.

PS2 Port Swap

Option	Description
Disabled	Set this value to use the default PS/2 port settings. This is the default setting.
Enabled	Set this value to invert the PS/2 port settings so that the mouse port is switched from the top to the bottom while the keyboard port is switched from the bottom to the top.

Serial Port1 Address

This option specifies the base I/O port address and Interrupt Request address of serial port 1. The Optimal setting is *3F8/IRQ4*. The Fail-Safe default setting is *Disabled.*

Option	Description
Disabled	Set this value to prevent the serial port from accessing any system resources. When this option is set to *Disabled*, the serial port physically becomes unavailable.
3F8/IRQ4	Set this value to allow the serial port to use 3F8 as its I/O port address and IRQ 4 for the interrupt address. This is the default setting. The majority of serial port 1 or COM1 ports on computer systems use IRQ4 and I/O Port 3F8 as the standard setting. The most common serial device connected to this port is a mouse. If the system will not use a serial device, it is best to set this port to *Disabled*.
2F8/IRQ3	Set this value to allow the serial port to use 2F8 as its I/O port address and IRQ 3 for the interrupt address. If the system will not use a serial device, it is best to set this port to *Disabled*.
3E8/IRQ4	Set this value to allow the serial port to use 3E8 as its I/O port address and IRQ 4 for the interrupt address. If the system will not use a serial device, it is best to set this port to *Disabled*.
2E8/IRQ3	Set this value to allow the serial port to use 2E8 as its I/O port address and IRQ 3 for the interrupt address. If the system will not use a serial device, it is best to set this port to *Disabled*.

Serial Port2 Address

This option specifies the base I/O port address and Interrupt Request address of serial port 2. The Optimal setting is *2F8/IRQ3*. The Fail-Safe setting is *Disabled.*

Option	Description
Disabled	Set this value to prevent the serial port from accessing any system resources. When this option is set to *Disabled*, the serial port physically becomes unavailable.
3F8/IRQ4	Set this value to allow the serial port to use 3F8 as its I/O port address and IRQ 4 for the interrupt address. If the system will not use a serial device, it is best to set this port to Disabled.

2F8/IRQ3	Set this value to allow the serial port to use 2F8 as its I/O port address and IRQ 3 for the interrupt address. This is the default setting. The majority of serial port 2 or COM2 ports on computer systems use IRQ3 and I/O Port 2F8 as the standard setting. The most common serial device connected to this port is an external modem. If the system will not use an external modem, set this port to *Disabled*. **Note:** Most internal modems require the use of the second COM port and use 3F8 as its I/O port address and IRQ 4 for its interrupt address. This requires that the Serial Port2 Address be set to *Disabled* or another base I/O port address and Interrupt Request address.
3E8/IRQ4	Set this value to allow the serial port to use 3E8 as its I/O port address and IRQ 4 for the interrupt address. If the system will not use a serial device, it is best to set this port to Disabled.
2E8/IRQ3	Set this value to allow the serial port to use 2E8 as its I/O port address and IRQ 3 for the interrupt address. If the system will not use a serial device, it is best to set this port to *Disabled*.

Onboard CIR Port

This option specifies the base I/O port address of the onboard CIR port. The Optimal setting is 3E0. The Fail-Safe setting is *Disabled*

Option	Description
Disabled	Set this value to prevent the Onboard CIR Port from accessing any system resources. When the value of this option is set to *Disabled*, the infrared port becomes unavailable.
3E0	Set this value to allow the Onboard CIR Port to use 3E0 as its I/O port address.
2E0	Set this value to allow the Onboard CIR Port to use 2E0 as its I/O port address.

Parallel Port Address

This option specifies the I/O address used by the parallel port. The Optimal setting is *378*. The Fail-Safe setting is *Disabled*.

Option	Description
Disabled	Set this value to prevent the parallel port from accessing any system resources. When the value of this option is set to *Disabled*, the printer port becomes unavailable.
378	Set this value to allow the parallel port to use 378 as its I/O port address. This is the default setting. The majority of parallel ports on computer systems use IRQ7 and I/O Port 378H as the standard setting.
278	Set this value to allow the parallel port to use 278 as its I/O port address.
3BC	Set this value to allow the parallel port to use 3BC as its I/O port address.

Parallel Port Mode

This option specifies the parallel port mode. The Optimal setting is *Normal*. The Fail-Safe setting is *disabled*.

Option	Description
Normal	Set this value to allow the standard parallel port mode to be used. This is the default setting.
Bi-Directional	Set this value to allow data to be sent to and received from the parallel port.
EPP	The parallel port can be used with devices that adhere to the Enhanced Parallel Port (EPP) specification. EPP uses the existing parallel port signals to provide asymmetric bi-directional data transfer driven by the host device.
ECP	The parallel port can be used with devices that adhere to the Extended Capabilities Port (ECP) specification. ECP uses the DMA protocol to achieve data transfer rates up to 2.5 Megabits per second. ECP provides symmetric bi-directional communication.

Parallel Port IRQ

This option specifies the IRQ used by parallel port. The Optimal and Fail-Safe default setting is *7*.

Option	Description
5	Set this value to allow the serial port to use Interrupt 3.
7	Set this value to allow the serial port to use Interrupt 7. This is the default setting. The majority of parallel ports on computer systems use IRQ7 and I/O Port 378H as the standard setting.

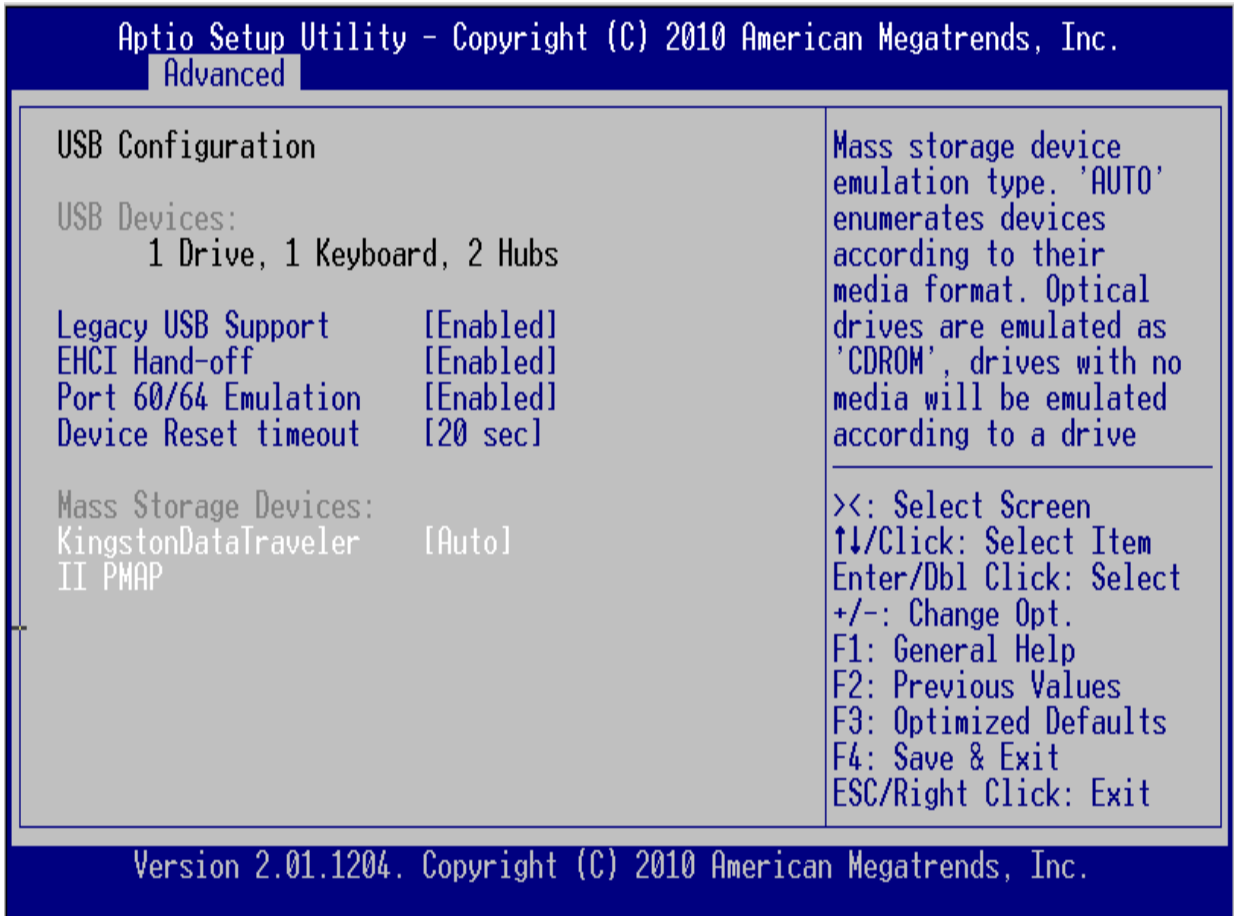
OnBoard Game/Midi Port

This option specifies the onboard Game/Midi port I/O address. The Optimal setting is *200/298*. The Fail-Safe setting is *Disabled*.

Option	Description
Disabled	Set this value to prevent the onboard Game/Midi port from accessing any system resources. When the value of this option is set to *Disabled*, the game port becomes unavailable.
200/298	Set this value to allow the onboard Game/Midi port to use 200 and 298 as its I/O port address. This is the default setting.
200/300	Set this value to allow the onboard Game/Midi port to use 200 and 300 as its I/O port address.
200/330	Set this value to allow the onboard Game/Midi port to use 200 and 330 as its I/O port address.
208/298	Set this value to allow the onboard Game/Midi port to use 208 and 298 as its I/O port address. This is the default setting.
208/300	Set this value to allow the onboard Game/Midi port to use 208 and 300 as its I/O port address.
208/330	Set this value to allow the onboard Game/Midi port to use 208 and 330 as its I/O port address.

USB Configuration

This option allows the user to view and configure the settings of the USB configuration parameters.



USB Devices

Legacy USB Support

This enables Legacy USB Support, the following tables outlines the different modes of this feature,

Option	Description
Auto	This option disables legacy support if no USB devices are connected
Enable	This option will enable Legacy USB support.
Disable	This option will keep USB devices available only for EFI applications.

EHCI Hand-off:

This is a workaround feature for Operating Systems without EHCI hand-off support. The EHCI ownership must be claimed by EHCI Driver.

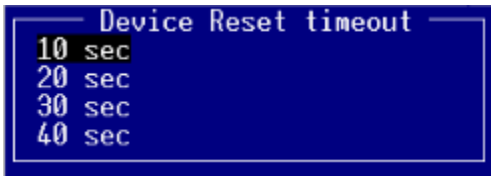
Option	Description
Enable	This option enables EHCI hand-off support.
Disable	This option disables EHCI hand-off support.

Port 60/64 Emulation:

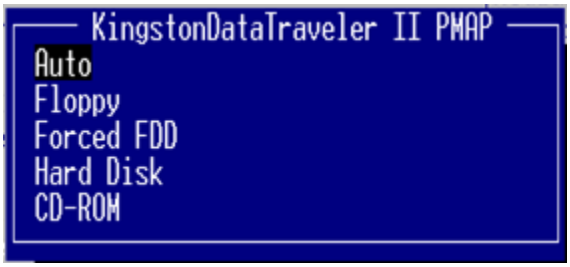
Option	Description
Enable	This option enables I/O port 60h/64h emulation support. This feature must be enabled for the complete USB Keyboard Legacy support for non-USB aware operating systems
Disable	This option disables port 60h/64h emulation support.

Device Reset Timeout

This feature enables you to set Device Reset Timeout at various time intervals.



Mass Storage Devices



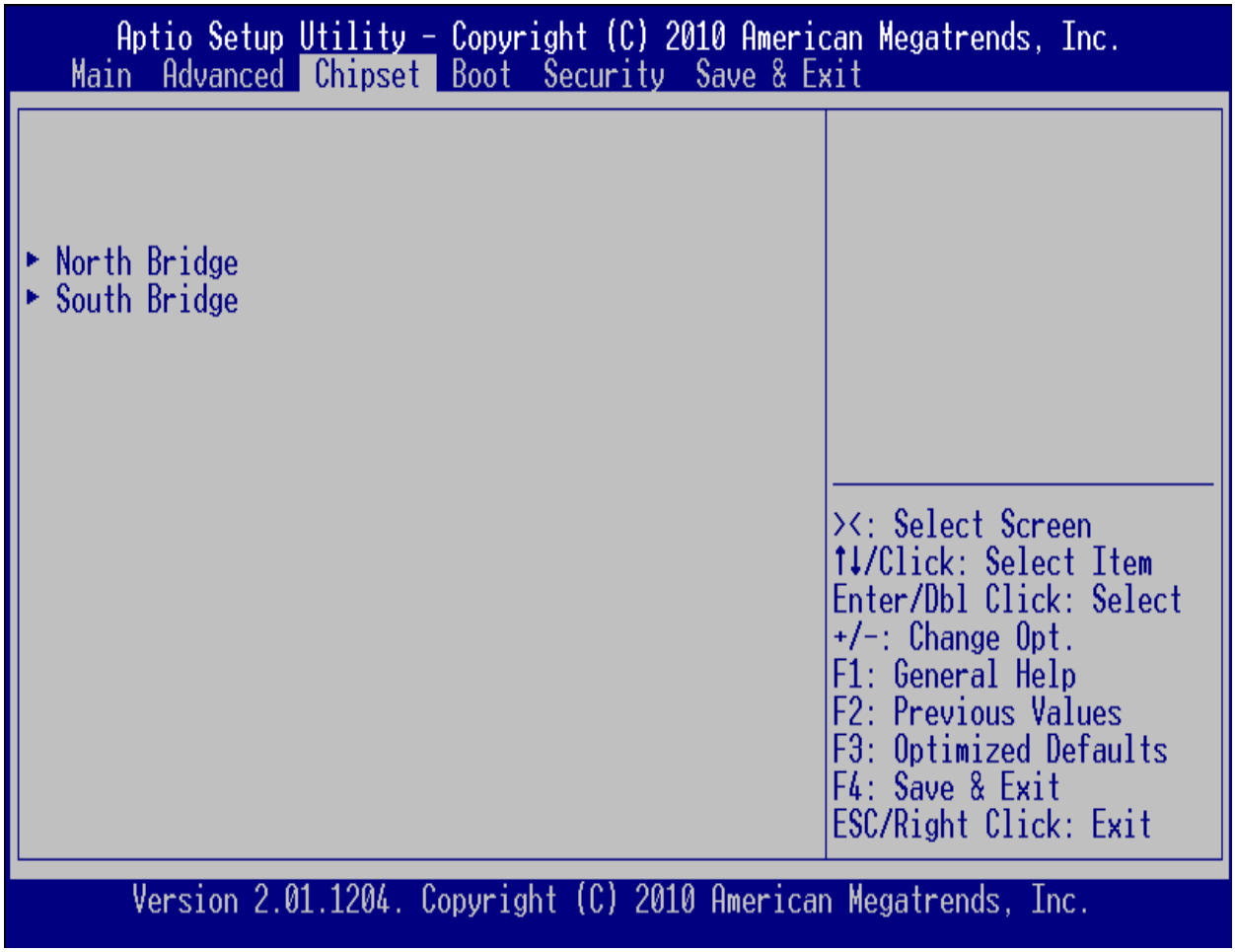
It will allow the user to set the connected USB devices to emulate as a specific type

Option	Description
Auto	This option emulates the USB device as any one of following types.
HDD	This option emulates the USB device as HDD device type
FDD	This option emulates the USB device as FDD device type
Force FDD	This option emulates the USB device as Force FDD device type
CD-ROM	This option emulates the USB device as CD-ROM device type

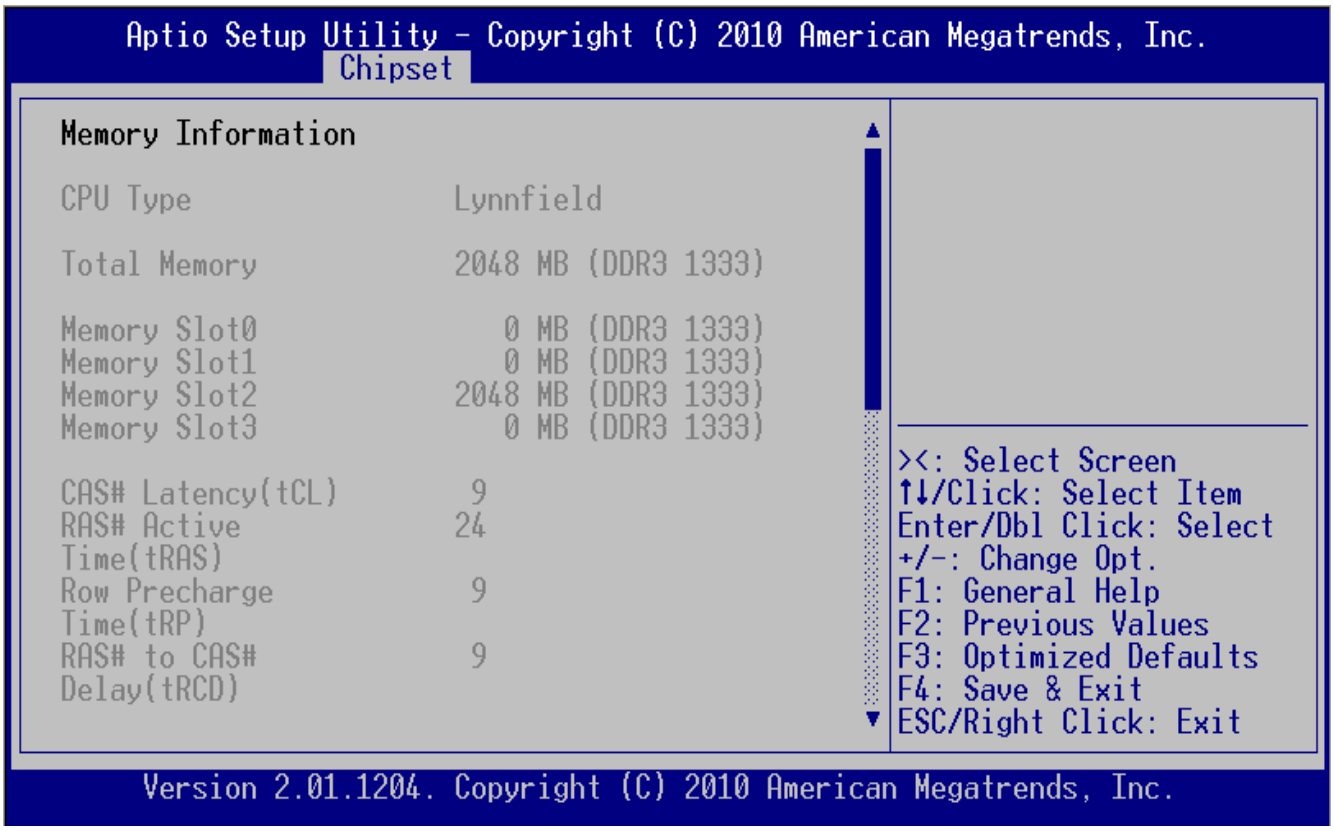
Chapter 4 Chipset Configuration Setup

Chipset Configuration

Select the *Chipset* menu item from the Aptio™ TSE screen to enter the Chipset Configuration Setup. You can select any of the items in the left frame of the screen, such as North Bridge, South Bridge, to access the parameters for that item.



North Bridge Configuration



:

The *North Bridge Configuration* menu allows the user to perform the following

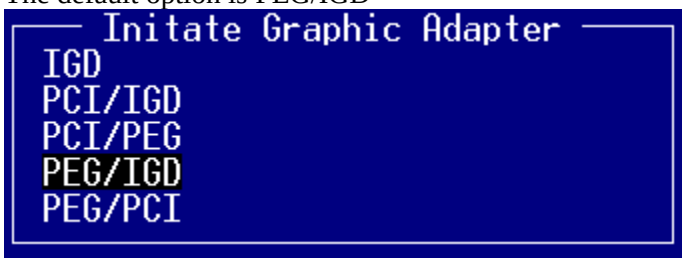
Option	Description
Memory Slot 0-3	This option allows the user to view the size of the memory modules located on the specified slots.
CAS# Latency(tCL)	This option allows the user to view the tCL or Row Column timing parameters Default value is 9.
RAS# Active Time(tRAS)	This option allows the user to view the tRAS or Row Precharge Delay timing parameters. Default value is 24
Row Precharge time (tRP)	This option allows the user to view the tRP or RAS Precharge to active timing parameters. Default value is 9
RAS# to CAS# Delay(tRCD)	This option allows the user to view the tRCD parameter. Default value is 9
Write Recovery Time(tWR)	This option allows the user to view the write recovery time parameter. Default value is 10
Row Refresh Cycle Time (tRFC)	This option allows the user to view the tRFC parameter. Default value is 740
Write to Read Delay(tWTR)	This option allows the user to view the tWTR parameter. Default value is 5
Active to Active Delay(tRRD)	This option allows the user to view the tRRD parameter. Default value is 4
Read CAS# Precharge(tRTP)	This option allows the user to view the tRTP parameter. Default value is 5

Low MMIO Align

Low MMIO resources align at 64MB or 1024 MB.

Initiate Graphics Adapter

The default option is PEG/IGD



PCI Express Compliance Mode

Enable	This option to enable PCI Expression compliance testing mode
Disable	This option to disable PCI Expression compliance testing mode

PCI Express Port

Enable	This option to enable PCI Express port
Disable	This option to disable PCI Express port
Auto	This option to set automatic mode for PCI Express port

IGD Memory

Disable	This option to disable PCI Express port
Disable	This option is to disable IGD memory
32MB	This option is to set to 32MB
64MB	This option is to set to 64MB
128MB	This option is to set to 128MB

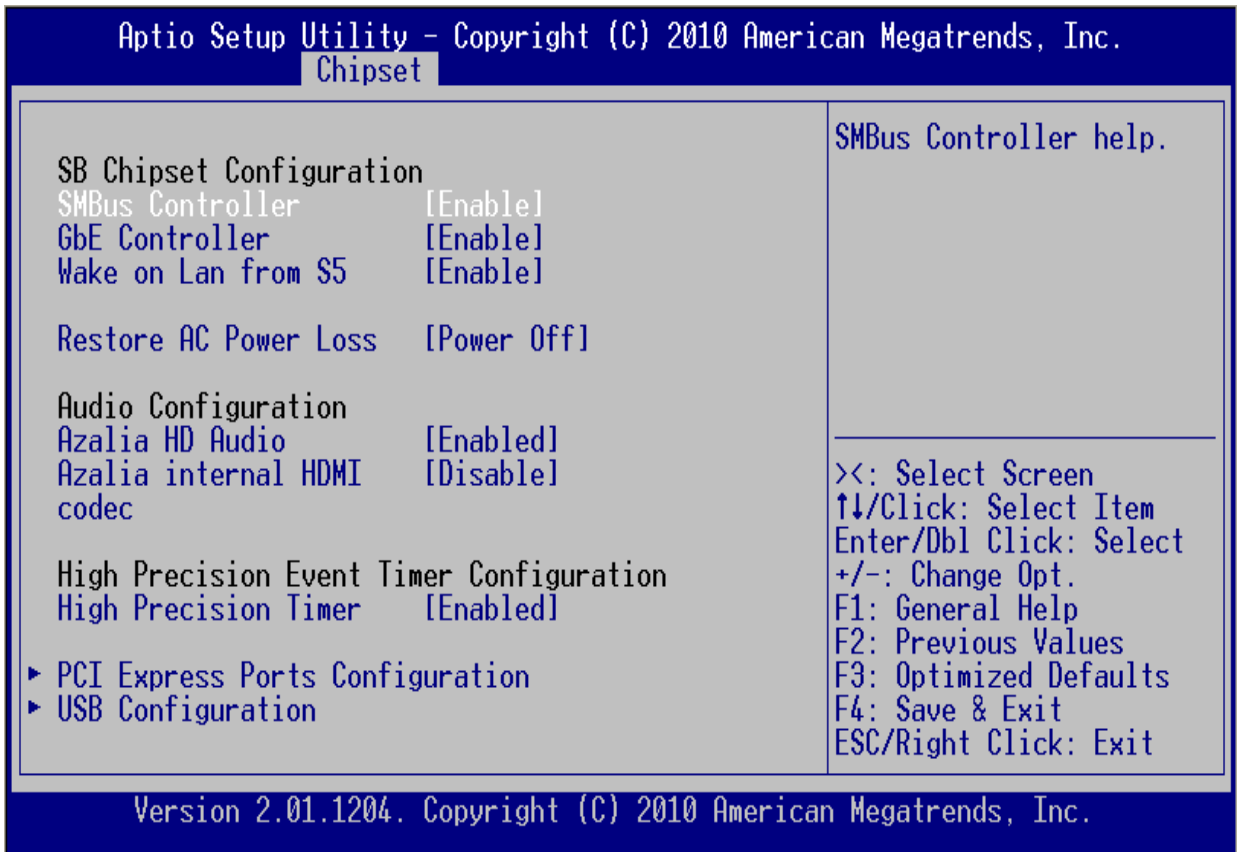
PAVP Mode

Disable	This option is to disable PAVP mode by internal graphics device
Enable	This option is to enable PAVP mode by internal graphics device

PEG Force Gen1

Disable	This option is to disable PCI Express port Force Gen1
Enable	This option is to enable PCI Express port Force Gen1

South Bridge Configuration



The *South Bridge Configuration* menu item allows the user to do the following:

SMBus Controller

Disable	This option is to disable SMBus controller help
Enable	This option is to enable SMBus controller help

GbE Controller

Disable	This option is to disable GbE controller help
Enable	This option is to enable GbE controller help

Wake on Lan from S5

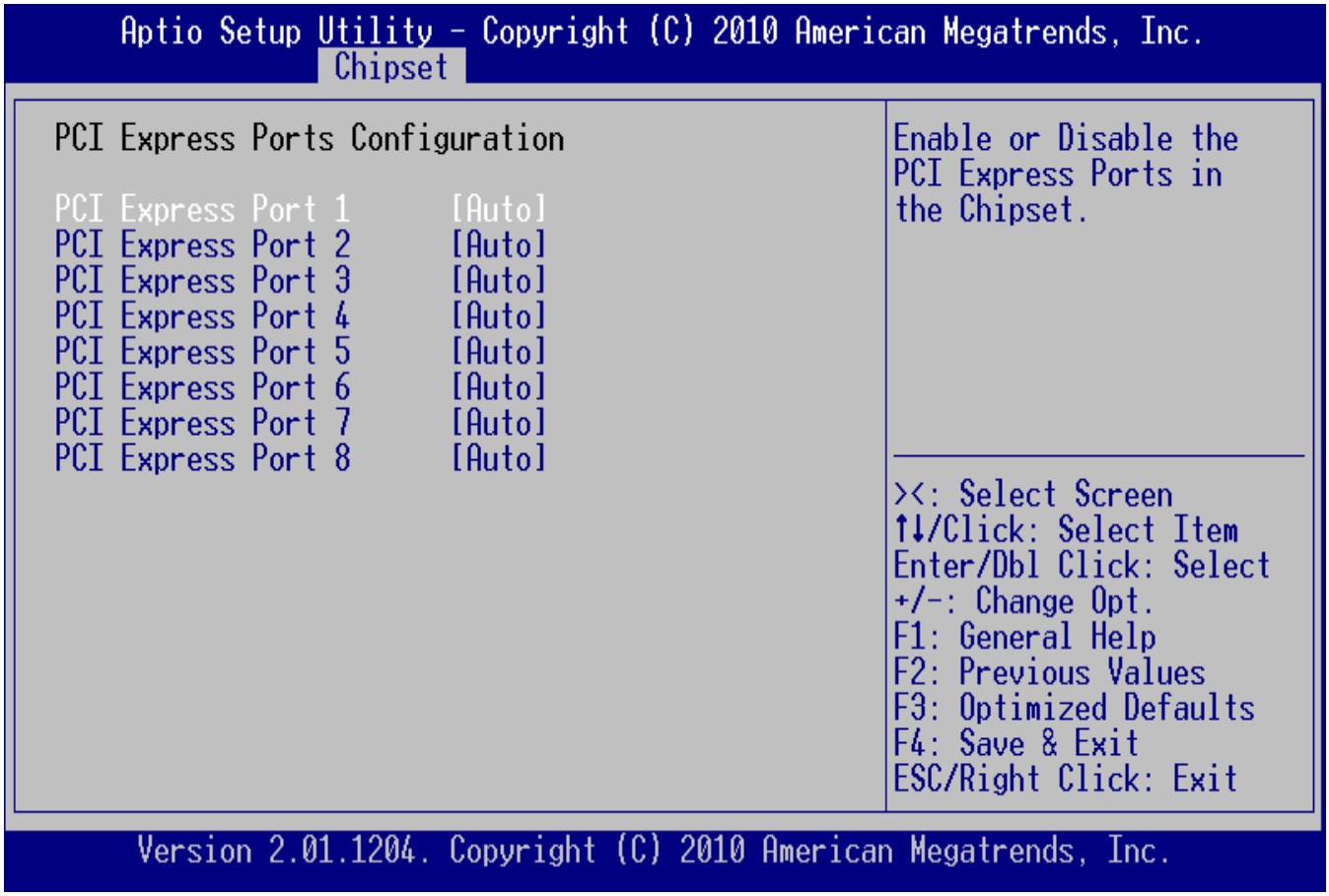
Disable	This option is to disable Wake on Lan from S5 help
Enable	This option is to enable Wake on Lan from S5 help

Audio Configuration

Azalia HD Audio	Enable/Disable Azalia HD audio. Default is Enable
Azalia internal HDMI	Enable/Disable Azalia internal HDMI codec. Default is disable

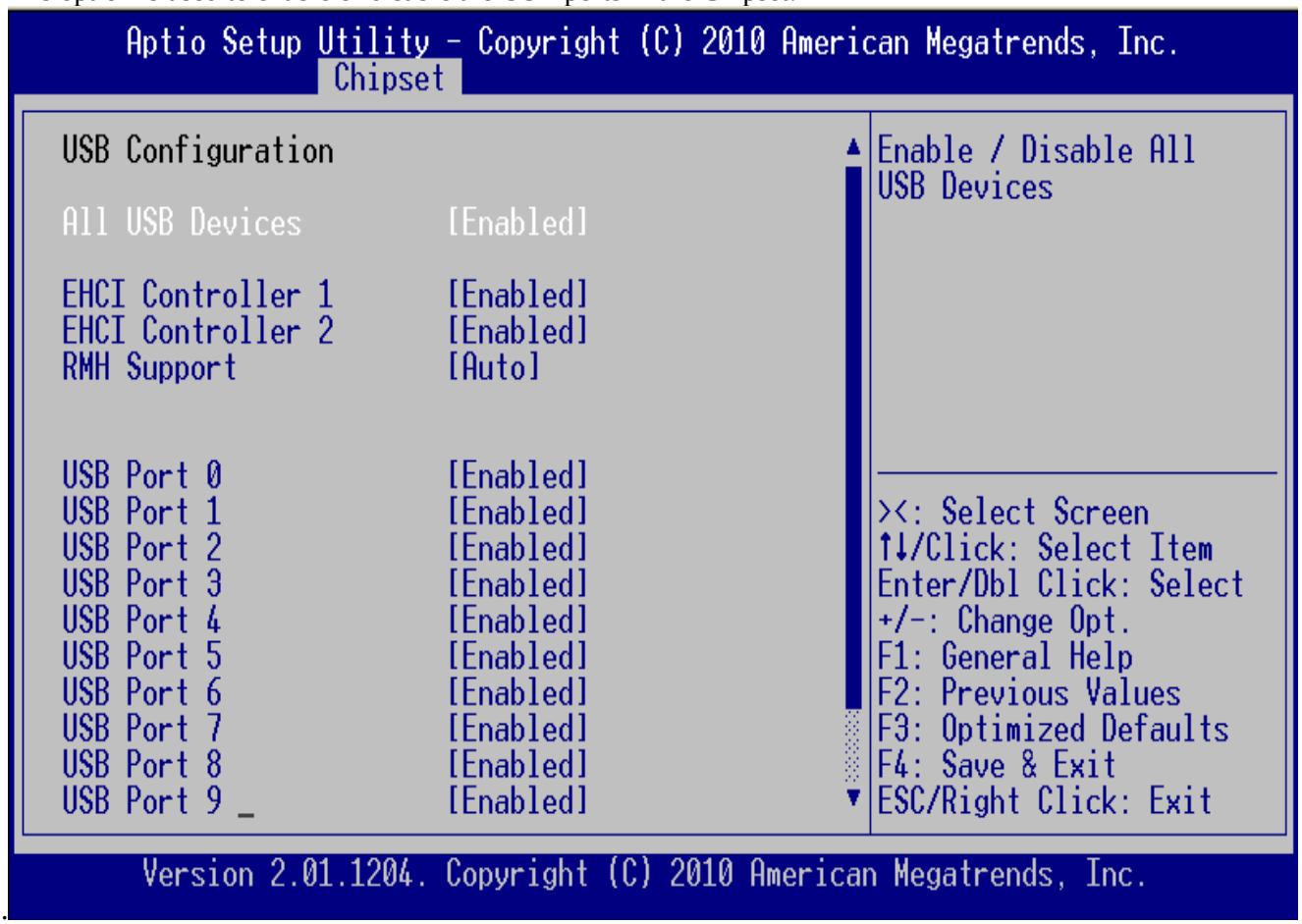
PCI Express Ports Configuration

This option is used to enable or disable the PCI Express Ports in the Chipset.



USB Configuration

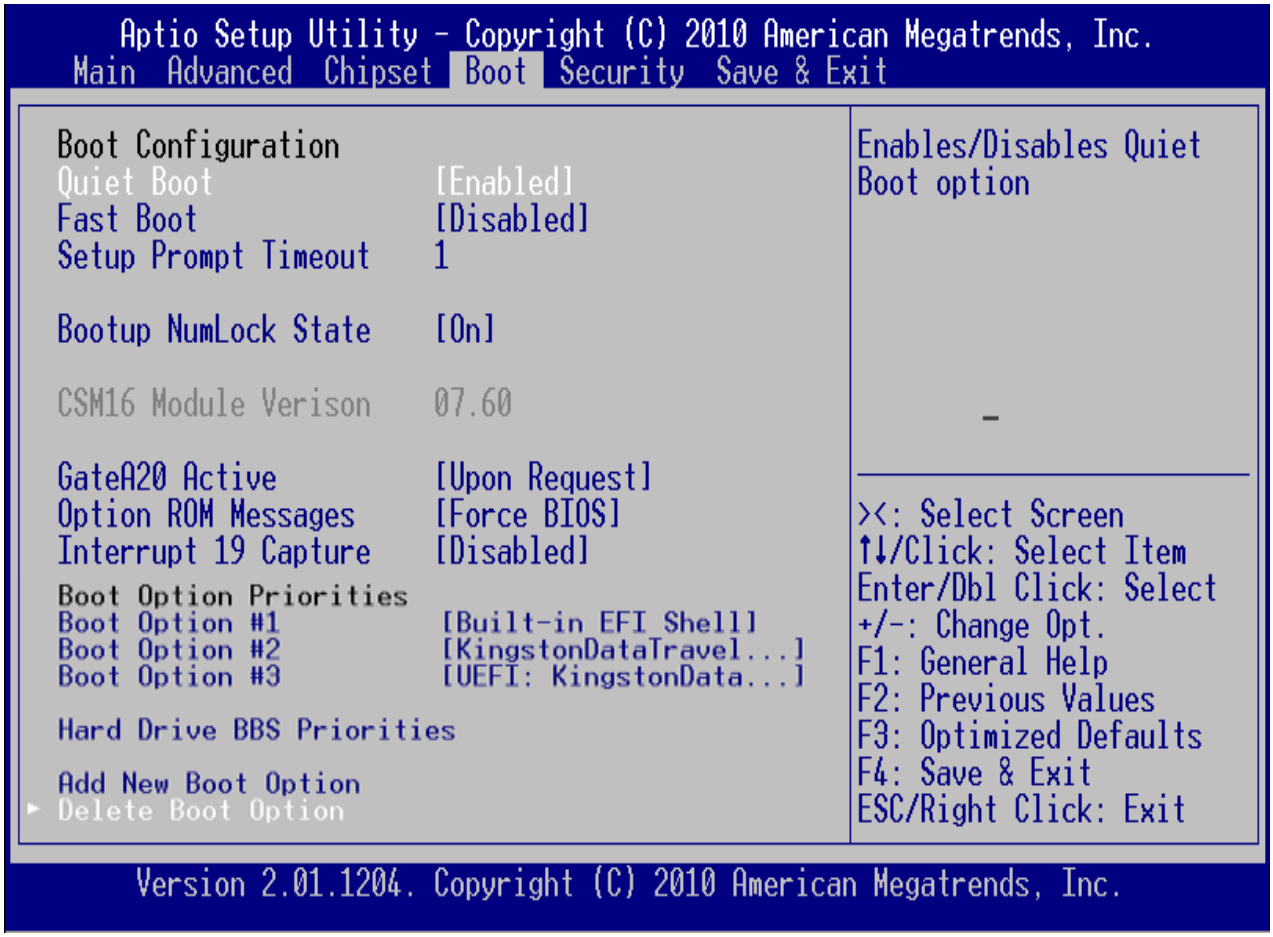
This option is used to enable or disable the USB ports in the Chipset.



Chapter 5 Boot Setup

Boot Setup

Use this menu option to configure your boot settings.



Boot Configuration

This menu item allows you to access more boot setup features.

Quiet Boot

Set this value to allow the boot up screen options to be modified between POST messages or OEM logo. The Optimal and Fail-Safe default setting is *Enabled.*

Option	Description
Disabled	Set this value to allow the computer system to display the POST messages.
Enabled	Set this value to allow the computer system to display the OEM logo. This is the default setting.

Boot Full Configuration

Option	Description
Disabled	Set this value to allow the computer system to do a minimal boot. In minimal configuration mode, only the devices that are necessary to boot the system are detected and initialized.
Enabled	Set this value to allow the computer system to do a full boot. In full configuration mode, all devices are detected and initialized. This is the default setting.

Boot to Network

This option allows you to boot to the network.

Option	Description
Disabled	Set this value to prevent booting to the network.
Enabled	Set this value to allow booting to the network. This is the default setting.

Setup Prompt Timeout:

Set number of seconds to wait for setup activation key 65535(0XFFFF) means indefinite waiting.

Bootup NumLock State

Set this value to allow the Number Lock setting to be modified during boot up. The Optimal default setting is *ON.*

Option	Description
Off	This option does not enable the keyboard Number Lock automatically. To use the 10-keys on the keyboard, press the Number Lock key located on the upper left-hand corner of the 10-key pad. The Number Lock LED on the keyboard will light up when the Number Lock is engaged.
On	Set this value to allow the Number Lock on the keyboard to be enabled automatically when the computer system is boot up. This allows the immediate use of 10-keys numeric keypad located on the right side of the keyboard. To confirm this, the Number Lock LED light on the keyboard will be lit. This is the default setting.

GateA20 Active

The CPU address bit 20 is controlled by a signal called gateA20. Often gatea20 signal is generated by a peripheral controller (E.g. keyboard Controller) which is a part of the overall system.

Option	Description
Upon Request	GA20 can be disabled using BIOS services.
Always	Do not allow disabling GA20; this option is useful when RT code is executed above 1MB

Optional ROM Messages:

Set display mode for Option ROM. Based on this value it displays the messages from Option ROM.

Option	Description
Force BIOS	Set this value to allow the system to display the Option ROM messages.
Keep Current	Set this value to not allow the Option ROM messages.

Interrupt 19 Captures:

It is a software interrupt that handles the boot disk function. It is typically handle by the BIOS.

Option	Description
Disabled	Set this value to allow the computer system Optional ROMs to trap Interrupt 19
Enabled	Set this value to allow the computer system The ROM will not be able to capture the Interrupt 19

Boot Option Priorities

This option shows the priorities of the boot options. User can change the priorities by selecting the particular boot option. The boot option selected in Boot option #1 will be the first priority, followed by second, third and so on.

Hard Drive BBS Priorities

It will list all the Boot options that are configured as Hard Drive. User can change the priority as similar to the main boot option priorities. The first boot option will be having top boot priority and will appear at the boot option priorities and boot order.

Floppy Drive BBS Priorities

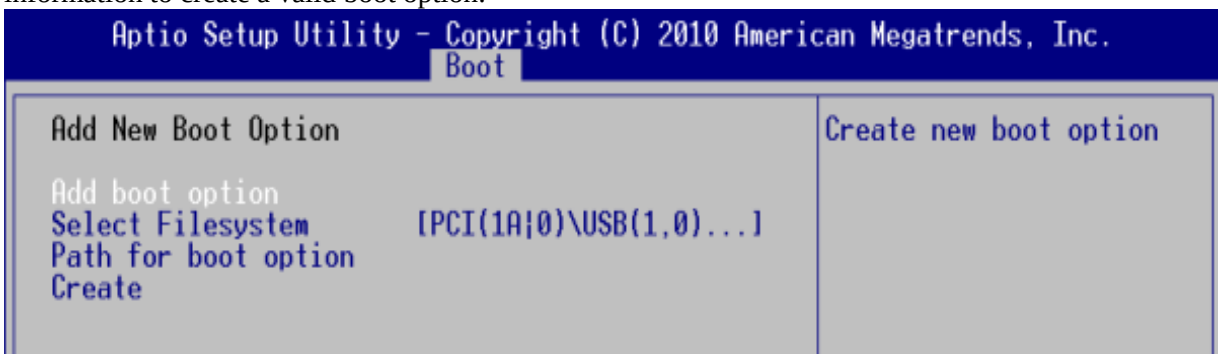
Set the system boot order in this and the first boot option will have the top boot priority and it will be appeared at the boot option priorities and boot order.

CD/DVD ROM Drive BBS Priorities

Set the system boot order in this and the first boot option will have the top boot priority of CD/DVD ROM drive and it will appear at the boot option priorities and boot order.

Add New Boot Option

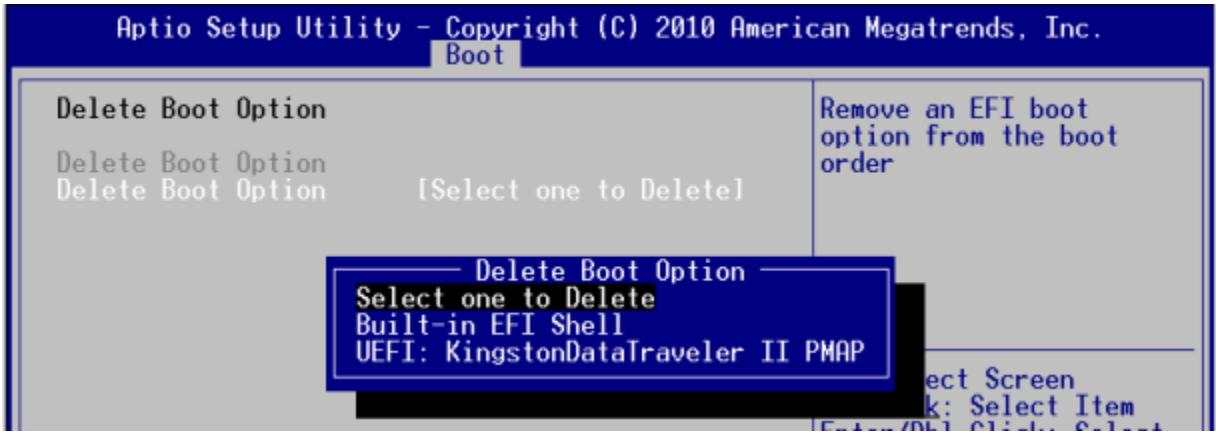
This option allows the user to add the new boot options manually. User needs to provide the following information to create a valid boot option.



Option	Description
Add boot option	Enter the name of the boot option
Select File system	Select the file system for the boot option from the available options.
Path for boot option	Enter a valid file path of the boot option
Create	After performing the above options select this option to create the new boot option.

Delete Boot Option

This option allows the user to delete any of the existing boot option. Select a boot option from the list to delete.



Chapter 6 Security Setup

Password Support

Two Levels of Password Protection

Security Setup provides both Administrator and User password. If you use both passwords, the Administrator password must be set first.

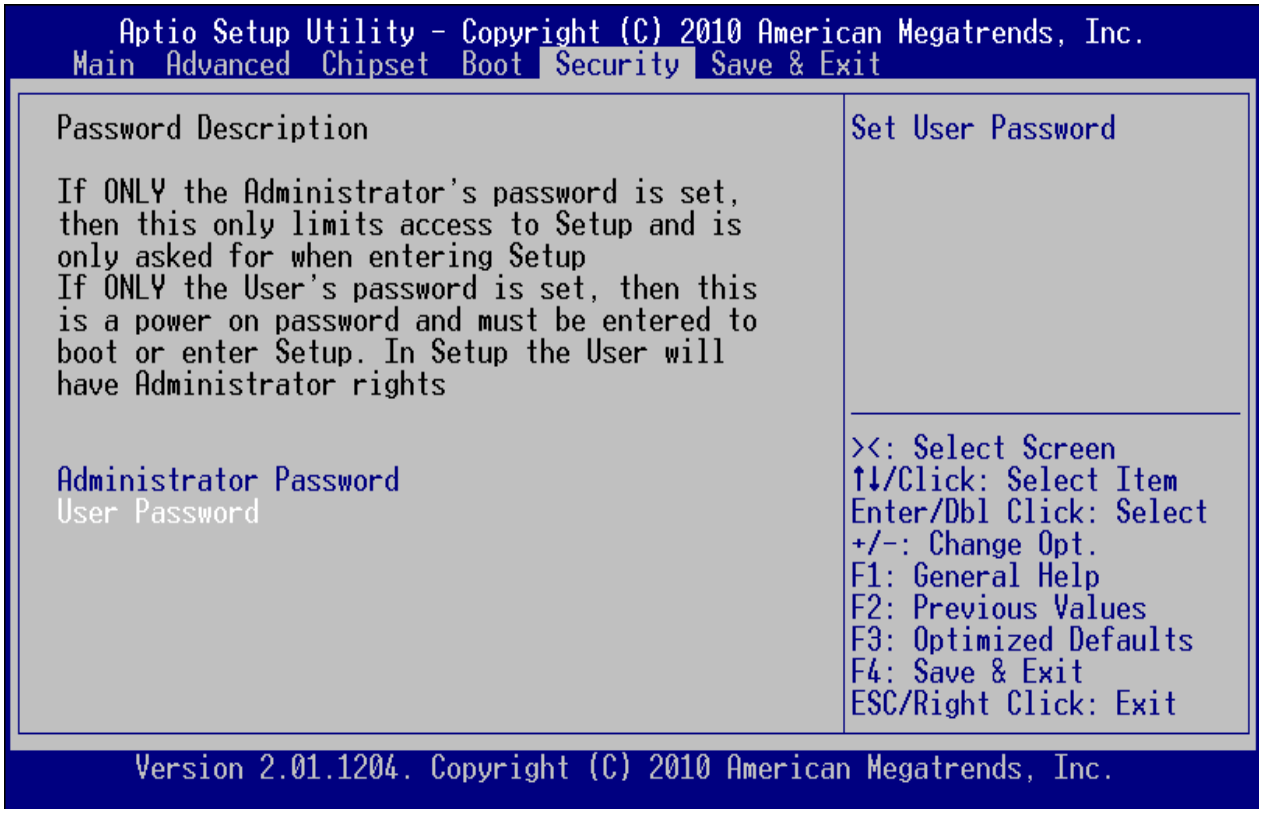
The system can be configured so that all users must enter a password every time the system boots or when Setup is executed, using either the Administrator password or User password.

The Administrator and User passwords activate two different levels of password security.

If you select password support, you are prompted for a three to twenty character password. Type the password on the keyboard. The password does not appear on the screen when typed. Make sure you write it down. If you forget it, you must drain NVRAM and reconfigure.

Security Setup

The *Security* setup menu allows the user to do the following:



Option	Description
User Password	This option allows the user to set a user level password for the BIOS.
Administrator Password	This option allows the user to set an administrative level password for the BIOS.

Password Support

Remember the Password

Keep a record of the new password when the password is changed. If you forget the password, you must erase the system configuration information in NVRAM.

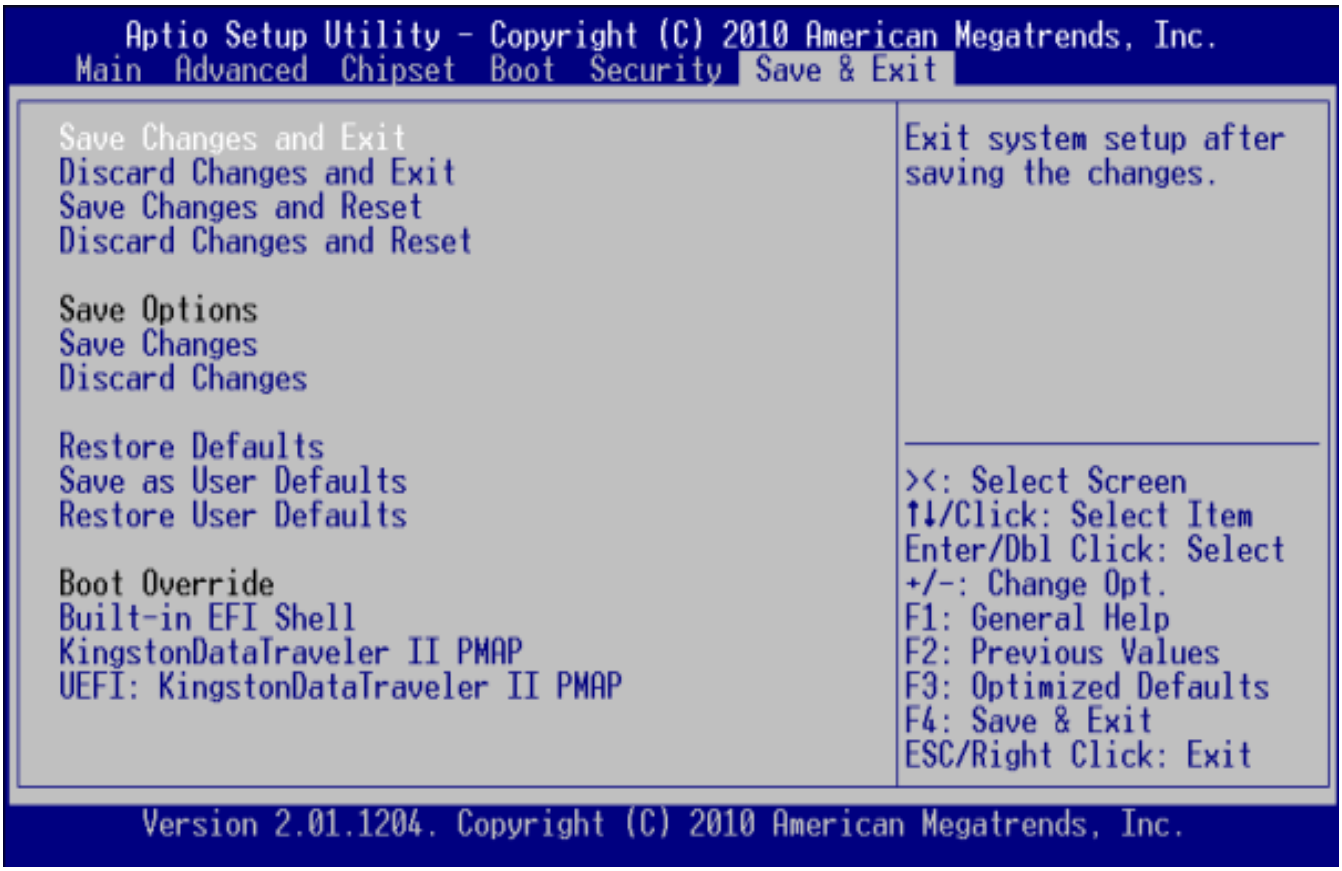
Security Setup

The *Security* setup menu item allows the user to do the following:

Option	Description
Unlock Setup	This option allows the user to enter passwords.
User Password	This option allows the user to set a user level password for the BIOS.
Admin Password	This option allows the user to set an administrative level password for the BIOS.
Chassis Intrusion	This option allows the user to enable or disable the chassis intrusion functionality of the hardware platform.

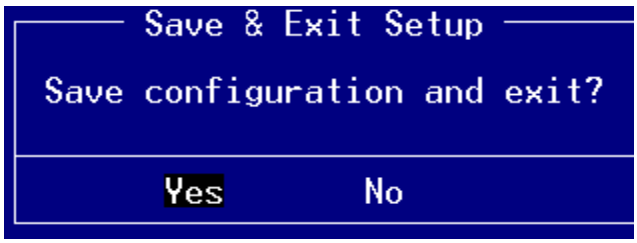
Chapter 7 Setting Defaults, Saving, and Exiting Setup

The Save and Exit menu enables the user to perform the following actions,



Save Changes and Exit

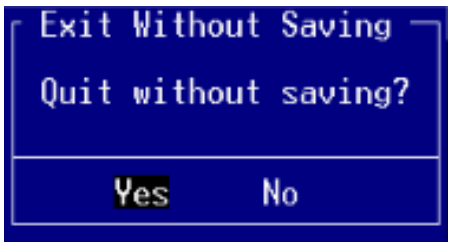
When you have completed the system configuration changes, select this option to save the changes and Exit from Aptio™ TSE, so the new system configuration parameters can take effect. The following window will appear after selecting the 'Save Changes and Exit' option selected.



Select *YES* to Save Changes and Exit Aptio™ TSE.

Discard Changes and Exit

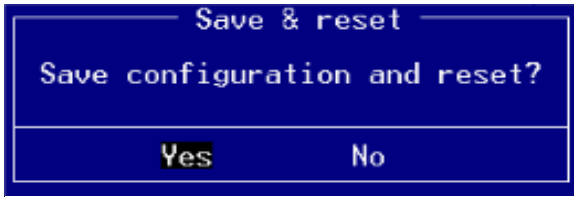
Select this option to quit Aptio™ TSE without making any modifications to the system configuration. The following window will appear after selecting the 'Discard Changes and Exit' option selected.



Select *YES* to Discard changes and Exit Aptio™ TSE.

Save Changes and Reset

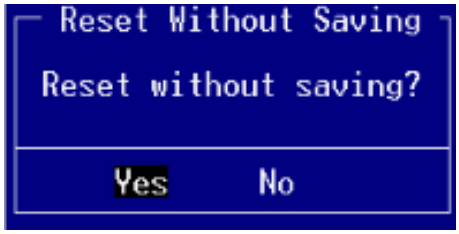
When you have completed the system configuration changes, select this option to save the changes and reboot the system, so the new system configuration parameters can take effect. The following window will appear after selecting the 'Save Changes and Reset' option selected.



Select *YES* to Save Changes and Reset.

Discard Changes and Reset

Select this option to reboot the system without saving the changes done in the setup configuration. The following window will appear after selecting the 'Discard Changes and Reset' option selected.



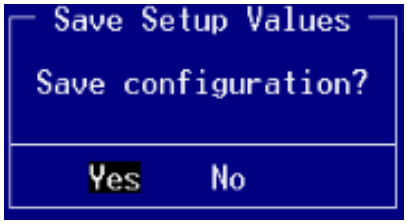
Select *YES* to Reset without saving.

Save Options

Save Changes done so far to any of the setup options.

Save Changes

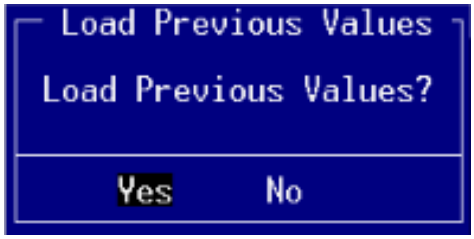
When you have completed the system configuration changes, select this option to save your system configuration and continue. For some of the options it required to reset the system to take effect.



Select *YES* to Save Changes and continue

Discard Changes

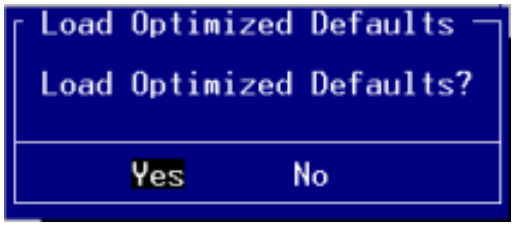
When you have completed the system configuration changes, select this option to undo the previous changes



Select *YES* to load previous value and continue

Restore Defaults

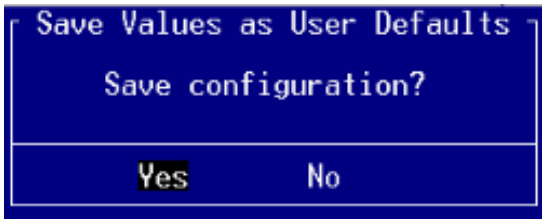
Restore default values for all setup options.



Select *YES* to load Optimized defaults.

Save as User Defaults

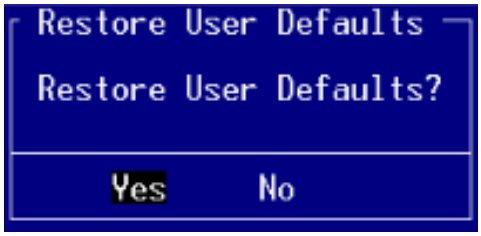
Save changes done so far as User defaults.



Select *YES* to save changes and continue.

Restore User Defaults

Restore the User defaults to all the setup options



Select *YES* to restore changes to user defaults and continue.

Boot Over ride

It will display all the available boot options from the Boot Option List. User can select any of the options to select to the particular device.