Fujitsu LifeBook

T Series

BIOS Guide

LifeBook T Series Model:

T4020/T4020D

FUJITSU COMPUTER SYSTEMS

T Series BIOS
BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your tablet. Your BIOS is set at the factory for normal operating conditions, therefore there should be no need to set or change the BIOS environment to operate your tablet.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your tablet.
2. Press the [F2] key when a message appears under the Fujitsu logo prompting you to "Press <F2>: BIOS Setup". This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the arrow keys to scroll through the other setup menus to review or alter the current settings.

Navigating through the Setup Utility

The BIOS setup utility consists of six menus: Main, Advanced, Security, Boot, Info and Exit. This document explains each menu in turn including all submenus and setup items.

The following procedures allow you to navigate the setup utility menus:

1. To select a menu, use the cursor keys: [◄], [►].
2. To select a field within a menu or a submenu, use the cursor keys: [▲], [▼].
3. To select the different values for each field, press the [Spacebar] to change to the next higher selection and [F5] or [-] to go to the next lower selection.
4. To activate a submenu press the [Enter] key.
5. To return to a menu from a submenu, press the [Esc] key.
6. To go to the Exit menu from any other menu, press the [Esc] key.

i
- Selecting a field causes a help message about that field to be displayed on the right-hand side of the screen.
- Pressing the Enter key with the highlight on a selection that is not a submenu or auto selection will cause a list of all options for that item to be displayed. Pressing the Enter key again will select the highlighted choice.

7. Pressing the [F9] key resets all items in the BIOS to the default values.
8. Pressing the [F10] key saves the current configuration and exits the BIOS Setup Utility. You will be asked to verify this selection before it is executed.
9. Pressing the [F1] key gives you a general help screen.

Entering the Setup Utility After a Configuration Change or System Failure

If there has been a change in the system configuration that does not agree with the parameter settings stored in your BIOS memory, or there is a failure in the system, the system beeps and/or displays an error message after the Power On Self Test (POST). If the failure is not too severe, it will give you the opportunity to modify the settings of the setup utility, as described in the following steps:

1. When you turn on or restart the computer there is a beep and/or the following message appears on the screen:

   ```
   Error message - please run SETUP
   program Press <F1> key to continue,
   <F2> to run SETUP
   ```

2. If an error message is displayed on the screen, and you want to continue with the boot process and start the operating system anyway, press the [F1] key.

■ If your tablet emits a series of beeps that sounds like a code and the display is blank, please refer to the Troubleshooting section of your system Use's Guide. The Troubleshooting Section includes a list of error messages and their meanings.

■ If your data security settings require it, you may be asked for a password before the operating system will be opened.

3. If an error message is displayed on the screen, and you want to enter the setup utility, press the [F2] key.

4. When the setup utility starts with a fault present, the system displays the following message:

   `Warning!`

   `Error message`

   `[Continue]`

5. Press any key to enter the setup utility. The system will then display the Main Menu with current parameters values.

MAIN MENU – SETTING STANDARD SYSTEM PARAMETERS

The Main Menu allows you to set or view the current system parameters. *(See Navigating through the Setup Utility on page 2 for more information)*

The following tables show the names of the menu fields for the Main menu and its submenus, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use. Note that the actual drive labels shown may vary.

System Time and System Date can also be set from your operating system without using the setup utility. Use the calendar and time icon on your Windows Control panel or type time or date from the MS-DOS prompt.

```
                    PhoenixBIOS Setup Utility
      Main    Advanced    Security    Boot    Info    Exit

                                              Item Specific Help

    System Time:        [02:34:56]
    System Date:        [08/05/2005]
                                            Adjust calendar clock.
  ▶ Serial ATA Port 0   [FUJITSU MHT2040BH-(PM)]
  ▶ Primary Master      [MATSHITADVD-RAM UJ-840S-(PM)]   <Tab>, <Shift-Tab>, or
                                            <Enter> selects field.
    Language:           [English (US)]




 F1  Help      ↑↓ Select Item    -/Space Change Values    F9  Setup Defaults
 ESC Exit      ←→ Select Menu        Enter Select ▶ Sub-Menu  F10 Save and Exit
```

Figure 1.   Main Menu

Table 1: Fields, Options and Defaults for the Main Menu

Menu Field	Options	Default	Description
System Time:	——	——	Sets and displays the current time. Time is in a 24 hour format of hours:minutes:seconds with 2 digits for each. (HH:MM:SS). Example: 16:45:57. You may change each segment of the time separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.

Table 1: Fields, Options and Defaults for the Main Menu

Menu Field	Options	Default	Description
System Date:	——	——	Sets and displays the current date. Date is in a month/day/year numeric format with 2 digits each for month and day and 4 digits for year. (MM/DD/YYYY) for example: 03/20/1998. You may change each segment of the date separately. Move between the segments with the [Tab] key and/or [Shift] + [Tab] keys.
Serial ATA Port 0	Selects the Serial ATA Port 0 submenu.	The product # of the Serial ATA/IDE Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Serial ATA Port 0 submenu allowing additional device configuration options for this interface.
Primary Master:	Selects Primary Master submenu	The product # of the Hard Drive	Display the type of device on this ATA/ATAPI interface, if there is one. Pressing the Enter key selects the Primary Master submenu allowing additional device configuration options for this interface.
Language:	▪ English (US) ▪ Japanese (JP)	[English (US)]	The default setting differs between the US/European and the Japanese model. Selects the display language for the BIOS.

Serial ATA Port 0 Submenu of the Main Menu

The Serial ATA Port 0 submenu identifies what Serial ATA/IDE devices are installed.

Note that actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may also be displayed.

```
                    PhoenixBIOS Setup Utility
        Main

            Serial ATA Port 0 [FUJITSU MHT2040BH-SATA]        Item Specific Help


    Type:                        [Auto]                  Select Serial ATA/IDE
                                  LBA Format              drive installed here.
    Total Sectors:             78140160
    Maximum Capacity:          40008MB                    [Auto]
                                                          The BIOS auto-types the
                                                          drive on boot time.

                                                          [None]
                                                          The drive is disabled.




    F1  Help      ↑↓ Select Item    -/Space Change Values   F9  Setup Defaults
    ESC Exit      ↔  Select Menu      Enter Select ▶ Sub-Menu  F10 Save and Exit
```

Figure 2. Serial ATA Port 0 Master Submenu

Menu Field	Options	Default	Description
Type:	■ Auto ■ None	[Auto]	Select Auto to have the type of Serial or Parallel ATA device automatically identified by the BIOS at POST. If None is selected, the following Set-up items do not appear.
LBA Format			**Logical Block Addressing (LBA)**
Total Sectors:	---	---	The total number of sectors on your hard disk
Maximum Capacity:	---	---	The maximum capacity of your hard disk

■ A bootable CD-ROM or DVD-ROM may have a floppy disk or hard drive format. When a bootable CD-ROM or DVD-ROM is used, drive allocations change automatically without changing the BIOS setup. If a floppy disk format CD-ROM or DVD-ROM is used, the disc becomes Drive A. The CD-ROM or DVD-ROM will only take drive C: (hard drive format) if the internal hard drive is not present or is disabled. The bootable CD-ROM or DVD-ROM can never use a C: designation if a formatted internal hard drive is present since the C: designator is always reserved for the internal hard drive.The boot sequence ignores the new drive designations, however, your application software will use the new designations.

■ Be careful of the operating environment when booting from CD-ROM?DVD-ROM or you may mistakenly overwrite files.

Primary Master Submenu of the Main Menu

The Primary Master submenu identifies what primary devices are installed.

Note that actual hard drive label shown may vary. Depending on the drive type, information such as cylinders, heads and sectors may also be displayed.
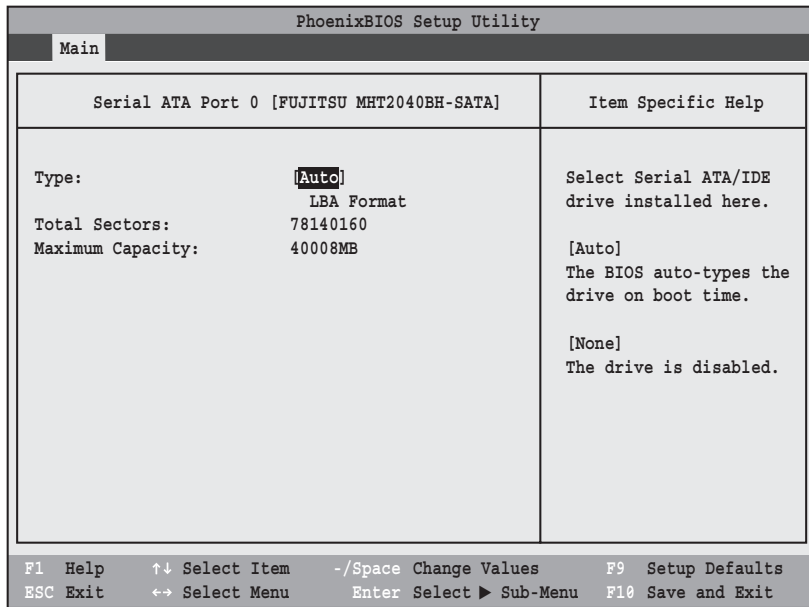
```
                    PhoenixBIOS Setup Utility
     Main

     Primary Master [MATSHITADVD-RAM UJ-840S-(PM)]          Item Specific Help


     Type:                      [Auto]              Select Serial ATA/IDE
                                                    drive installed here.
     Multi-Sector Transfers:    [Disabled]
     LBA Mode Control:          [Disabled]          [Auto]
     Transfer Mode:             [Standard]          The BIOS auto-types the
     Ultra DMA Mode:            [Disabled]          drive on boot time.

                                                     [None]
                                                    The drive is disabled.




     F1   Help       ↑↓ Select Item    -/Space  Change Values    F9   Setup Defaults
     ESC  Exit       ↔  Select Menu       Enter  Select ▶ Sub-Menu  F10  Save and Exit
```
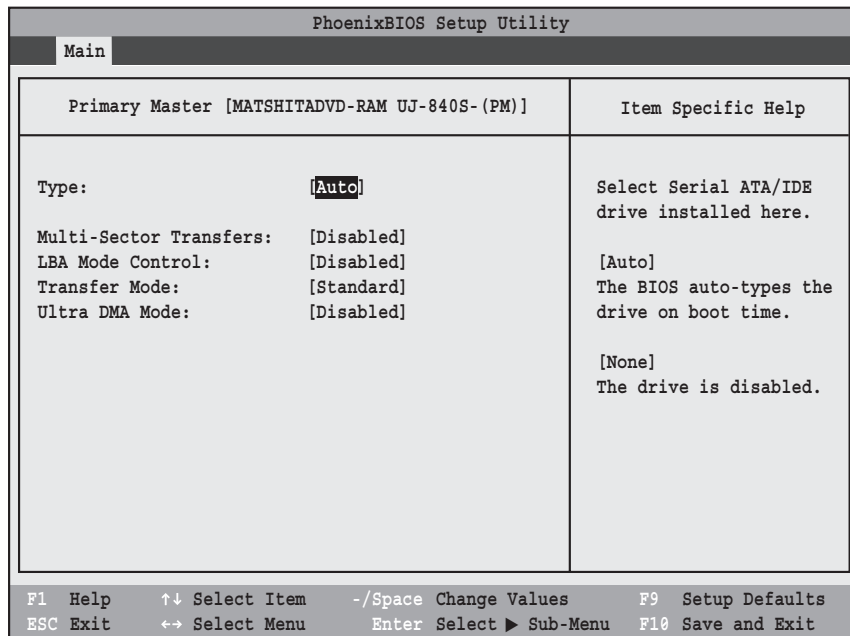
Figure 3. Primary Master Submenu

Menu Field	Options	Default	Description
Type:	• Auto • None	[Auto]	Selects the Serial ATA/IDE device type. Select Auto to have the type automatically identified by the BIOS at POST. If None is selected, all of the following Set-up items do not appear.
Multi-Sector Transfers:	• Disabled • 2 Sectors • 4 Sectors • 8 Sectors • 16 Sectors	[Disabled]	The best option is selected by the BIOS automatically when Auto is selected and cannot be selected by the user. Specifies the number of sectors per block for multiple sector transfer.
LBA Mode Control:	• Disabled • Enabled	[Disabled]	The best option is selected by the BIOS automatically when Auto is selected and cannot be selected by the user. Enables or disables Logical Block Addressing in place of Cylinder, Head, Sector addressing.

Menu Field	Options	Default	Description
Transfer Mode:	• Standard • Fast PIO 1 • Fast PIO 2 • Fast PIO 3 • Fast PIO 4 • Multiword DMA 1 • Multiword DMA 2	[Standard]	The best option is selected by the BIOS automatically when Auto is selected and cannot be selected by the user. Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode.
Ultra DMA Mode:	• Disabled • Mode 0 • Mode 1 • Mode 2 • Mode 3 • Mode 4 • Mode 5	[Disabled]	The best option is selected by the BIOS automatically when Auto is selected and cannot be selected by the user. Selects the method for moving data to/from the drive. Autotype the drive to select the optimum transfer mode.

Exiting from Main Menu

When you have finished setting the parameters on this menu, you can either exit from the setup utility, or move to another menu. If you wish to exit from the setup utility, press the [Esc] key or use the cursor keys to go to the Exit menu or to move to another menu.

ADVANCED MENU – SETTING DEVICE FEATURE CONTROLS

The Advanced Menu allows you to:
- Set the I/O addresses for the infrared ports.
- Set the features of the keyboard/mouse.
- Select between the display panel and/or an external CRT display or video projector.
- Set internal device configurations
- Configure USB features.
- Configure miscellaneous features such as Wake Up On LAN.
- Configure DMI Event Logging.

Follow the instructions for Navigating Through the Setup Utility to make any changes.

(See Navigating through the Setup Utility on page 2 for more information)

The following tables show the names of the menu fields for the Advanced Menu and its submenus, all of the options for each field, the default settings and a description of the field's function, and any special information needed to help understand the field's use.

```
                      PhoenixBIOS Setup Utility
        Main     Advanced    Security    Boot    Info    Exit

    ┌──────────────────────────────────────┬────────────────────────┐
    │                                      │   Item Specific Help   │
    │                                      │                        │
    │  ▶ IrDA Port Configurations          │                        │
    │  ▶ Keyboard/Mouse Features            │  Configures IrDA ports.│
    │  ▶ Video Features                     │                        │
    │  ▶ Internal Device Configurations     │                        │
    │  ▶ CPU Features                       │                        │
    │  ▶ USB Features                       │                        │
    │  ▶ Miscellaneous Configurations       │                        │
    │                                      │                        │
    │  ▶ Event Logging                      │                        │
    │                                      │                        │
    │                                      │                        │
    │                                      │                        │
    │                                      │                        │
    ├──────────────────────────────────────┴────────────────────────┤
    │  F1  Help      ↑↓ Select Item   -/Space Change Values   F9  Setup Defaults │
    │  ESC Exit      ←→ Select Menu     Enter Select ▶ Sub-Menu  F10 Save and Exit│
    └────────────────────────────────────────────────────────────────┘
```
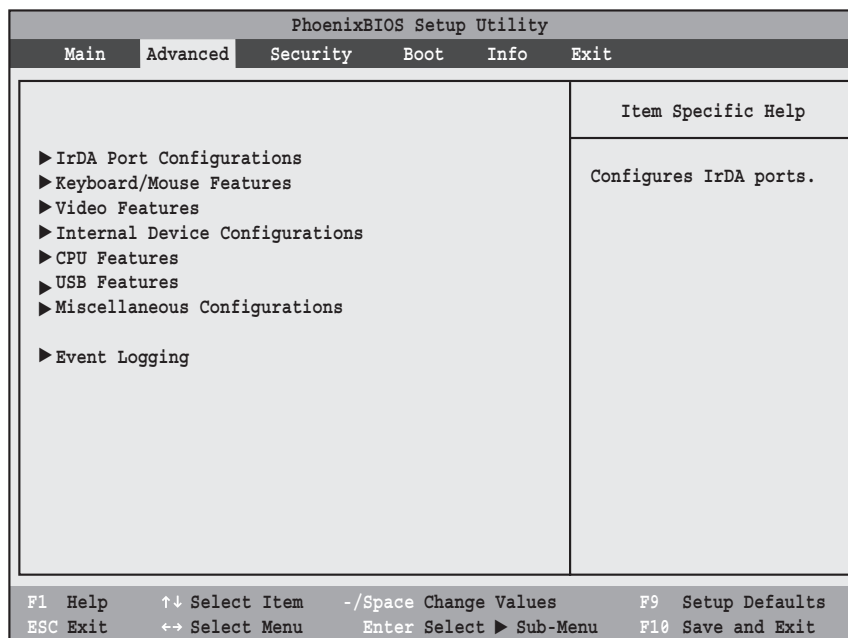
Figure 4.   Advanced Menu

Table 4: Fields, Options and Defaults for the Advanced Menu

Menu Field	Description
IrDA Port Configurations	When selected, opens the IrDA Port Configurations submenu which allows the user to modify settings for infrared ports.
Keyboard/Mouse Features	When selected, opens the Keyboard/Mouse Features submenu, which allows setting external and internal keyboard and mouse parameters.
Video Features	When selected, opens the Video Features submenu, which allows setting of the display parameters, including routing of video signals to different displays or video projectors.
Internal Device Configurations	When selected, opens the Internal Device Configuration submenu, which allows enabling or disabling the IDE LAN, and modem controllers.
CPU Features	When selected, opens the CPU Features submenu, which allows the user to modify the Intel(R) Speed-Step(R) features.
USB Features	Configures USB features.
Miscellaneous Configurations	Configures miscellaneous features, such as Wake Up On LAN and Power Button.
Event Logging	When selected, opens the event logging submenu.

IrDA Port Configuration Submenu of the Advanced Menu

The IrDA Port Configuration submenu provides the ability to set the I/O addresses and interrupt levels for the infrared ports of your system.

■ To prevent IRQ and address conflicts, avoid changing the default settings. If you must change the settings, you can call 1-800-8Fujitsu for technical assistance.

■ The BIOS will warn you of resource conflicts by placing a yellow asterisk next to each device that is in conflict.

■ All I/O addresses in Table 5 are in hexadecimal.

I/O addresses, DMA channels, and Interrupt levels can be entered in various ways, including via the BIOS setup utility, the control software for the I/O device, or the hardware. If any two ports or devices have the same I/O address assigned your tablet will not function normally. Please keep a record of original settings before making any changes in the event that a restoration is required. See your hardware and software documentation as well as the setup utility to determine settings, limitations, etc.

```
                     PhoenixBIOS Setup Utility
          Advanced

              IrDA Port Configurations              Item Specific Help

     Infrared Port:           [Enabled]          [Disabled]
      Mode:                   [FIR]              The port is disabled.
      I/O Address:            [2E8-2EF]
      Interrupt:              [IRQ 6]            [Enabled]
      I/O Address:            [400-43F]          The port is enabled
      DMA Channel:            [DMA 3]            with user configuration.

                                                 [Auto]
                                                 Plug & Play OS
                                                 configure the port.

     F1  Help      ↑↓ Select Item   -/Space Change Values    F9  Setup Defaults
     ESC Exit      ↔ Select Menu       Enter Select ▶ Sub-Menu   F10 Save and Exit
```

Figure 5. IrDA Port Configuration Submenu

Table 5: Fields, Options and Defaults for IrDA Port Configuration Submenu of Advanced Menu

Menu Field	Options	Default	Description
Infrared Port:	▪ Disabled ▪ Enabled ▪ Auto	[Enabled]	Configures the infrared port using either no configuration (Disabled), a user defined configuration (Enabled), or by allowing the BIOS or OS to choose the configuration (Auto).
Mode:	▪ IrDA ▪ FIR	[FIR]	Select whether to use normal infrared or fast infrared mode.
I/O Address:	▪ 3F8 - 3FF ▪ 2F8 - 2FF ▪ 3E8 - 3EF ▪ 2E8 - 2EF	[2E8 - 2EF]	Allows user to set the infrared port base I/O address when infrared port is Enabled.
Interrupt:	▪ IRQ 3 ▪ IRQ 6 ▪ IRQ 10 ▪ IRQ 11	[IRQ 6]	Allows user to set the infrared port interrupt when infrared port is Enabled.
I/O Address:	▪ 400 - 43F ▪ 480 - 4BF ▪ 500 - 53F ▪ 580 - 5BF	[400 - 43F]	Allows user to set the infrared port I/O address when FIR is Enabled.
DMA Channel:	▪ DMA 1 ▪ DMA 3	[DMA 3]	Allows user to set the infrared port DMA Channel when the infrared port is Enabled.

Keyboard/Mouse Features Submenu of the Advanced Menu

The Keyboard/Mouse Features submenu is for setting the parameters of NumLock.

```
                        PhoenixBIOS Setup Utility
            Advanced

    ┌─────────────────────────────────────────┬──────────────────────┐
    │         Keyboard/Mouse Features          │   Item Specific Help │
    ├─────────────────────────────────────────┼──────────────────────┤
    │                                          │                      │
    │   Numlock:                   [Off]       │   Selects power-on state │
    │                                          │   for Numlock.       │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    │                                          │                      │
    ├─────────────────────────────────────────┴──────────────────────┤
    │ F1  Help      ↑↓ Select Item   -/Space Change Values   F9  Setup Defaults │
    │ ESC Exit      ←→ Select Menu     Enter Select ▶ Sub-Menu  F10 Save and Exit │
    └─────────────────────────────────────────────────────────────────┘
```
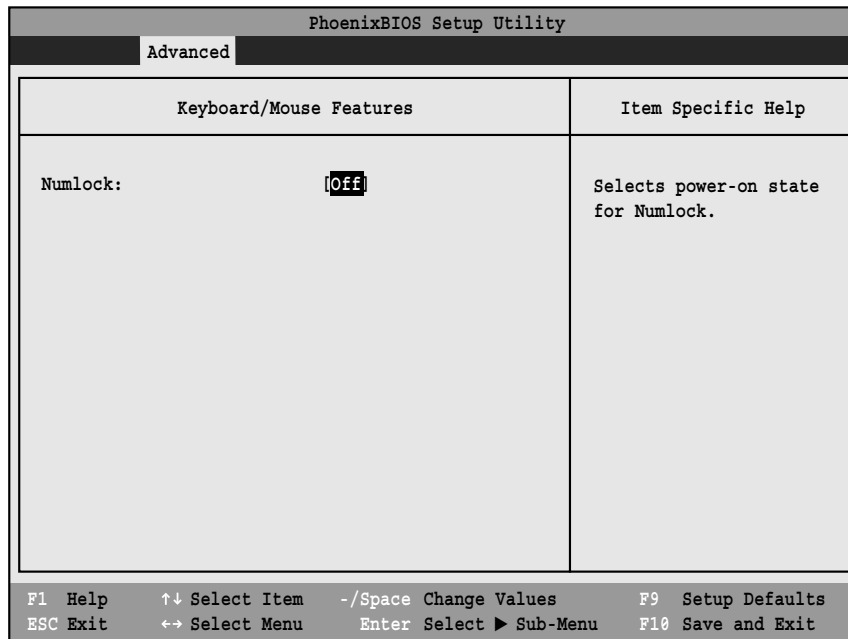
Figure 6.   Keyboard/Mouse Features Submenu

Table 6: Fields, Options and Defaults for the Keyboard/Mouse Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Numlock:	▪ On ▪ Off ▪ On/Padlock Off	[Off]	Sets the NumLock function state when the computer completes booting.

Video Features Submenu of the Advanced Menu

The Video Features Submenu is for setting the display parameters.
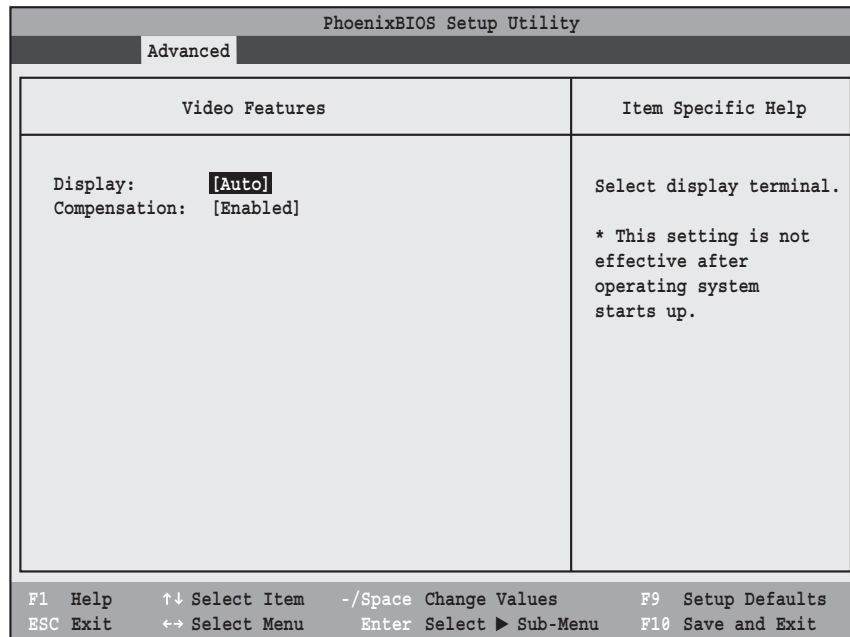
```
                    PhoenixBIOS Setup Utility
          Advanced
┌───────────────────────────────────────┬─────────────────────────────┐
│           Video Features               │    Item Specific Help       │
├───────────────────────────────────────┼─────────────────────────────┤
│                                        │                             │
│  Display:      [Auto]                  │  Select display terminal.   │
│  Compensation:   [Enabled]             │                             │
│                                        │  * This setting is not      │
│                                        │  effective after            │
│                                        │  operating system           │
│                                        │  starts up.                 │
│                                        │                             │
│                                        │                             │
│                                        │                             │
│                                        │                             │
│                                        │                             │
│                                        │                             │
│                                        │                             │
│                                        │                             │
├───────────────────────────────────────┴─────────────────────────────┤
│  F1  Help     ↑↓ Select Item   -/Space Change Values   F9  Setup Defaults │
│  ESC Exit     ←→ Select Menu      Enter Select ▶ Sub-Menu  F10 Save and Exit │
└──────────────────────────────────────────────────────────────────────┘
```

Figure 7.   Video Features Submenu

Table 7: Fields, Options and Defaults for the Video Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Display:	▪ Internal Flat Panel ▪ External (Analog) ▪ External (Digital) ▪ Auto	[Auto]	Selects where the video signal will be routed. Note that once the system boots up, the settings for the Windows video driver take precedence over this setting.
Compensation:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables display compensation. Display compensation is used to match the native resolution of the display with the input. For example, if you are using an application whose resolution causes it to appear smaller than the screen, enabling Compensation will expand the image to fill the screen.

Internal Device Configurations Submenu of the Advanced Menu

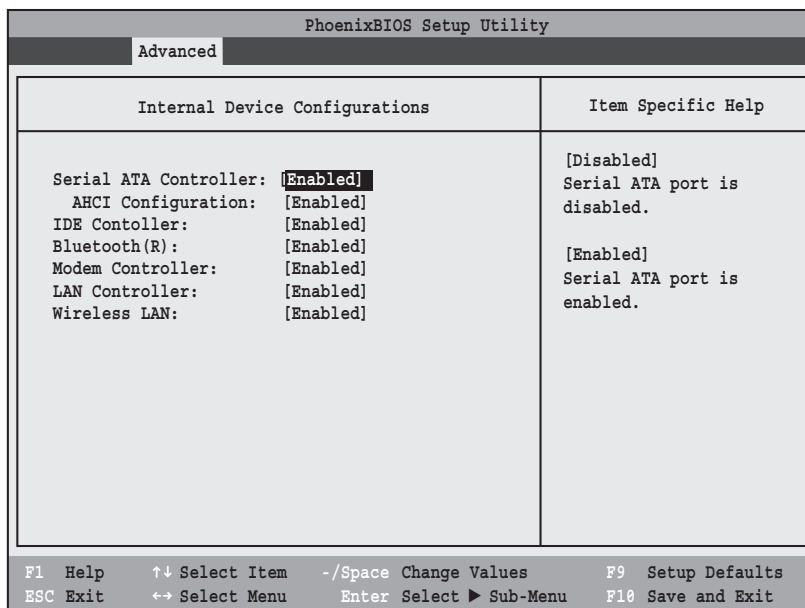The Internal Device Configuration submenu allows the user to configure other internal devices.

```
                          PhoenixBIOS Setup Utility
            Advanced

                 Internal Device Configurations             Item Specific Help

                                                        [Disabled]
        Serial ATA Controller:  [Enabled]               Serial ATA port is
          AHCI Configuration:   [Enabled]               disabled.
        IDE Contoller:          [Enabled]
        Bluetooth(R):           [Enabled]               [Enabled]
        Modem Controller:       [Enabled]               Serial ATA port is
        LAN Controller:         [Enabled]               enabled.
        Wireless LAN:           [Enabled]




     F1  Help      ↑↓ Select Item   -/Space Change Values    F9  Setup Defaults
     ESC Exit      ←→ Select Menu      Enter Select ▶ Sub-Menu  F10 Save and Exit
```

Figure 8.   Internal Device Configuration Submenu

Table 8: Fields, Options and Defaults for the Internal Device Configuration Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Serial ATA Controller:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables serial ATA devices.
AHCI Controller:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables the AHCI (Advanced Host Controller Interface). This selection does not appear when Serial ATA Controller is disabled.
IDE Controller:	▪ Disabled ▪ Enabled	[Enabled]	Allows you to enable and/or disable any or all IDE devices.
Bluetooth(R):	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables the optional Bluetooth device.
Modem Controller:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables the modem device.
LAN Controller:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables the LAN controller.
Wireless LAN:	▪ Disabled ▪ Enabled	[Enabled]	Enables or disables the optional wireless LAN device.

CPU Features Submenu of the Advanced Menu

The CPU Features Submenu allows the user to modify the Intel(R) SpeedStep(R) Technology features.
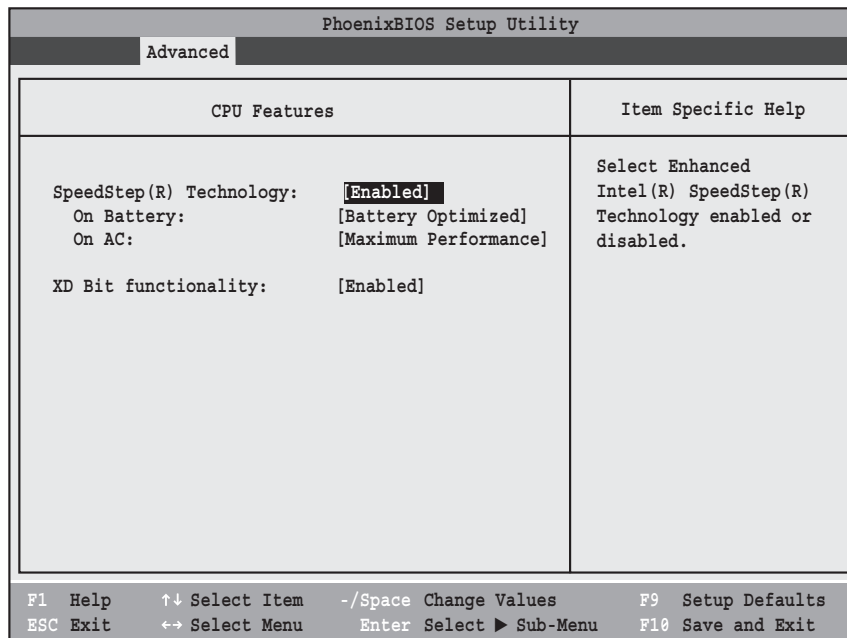
```
                      PhoenixBIOS Setup Utility
                Advanced

┌─────────────────────────────────────────┬──────────────────────────┐
│           CPU Features                    │    Item Specific Help    │
│                                           │                          │
│                                           │  Select Enhanced         │
│   SpeedStep(R) Technology:    [Enabled]   │  Intel(R) SpeedStep(R)   │
│      On Battery:          [Battery Optimized] │ Technology enabled or │
│      On AC:               [Maximum Performance] │ disabled.           │
│                                           │                          │
│   XD Bit functionality:      [Enabled]    │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
│                                           │                          │
├───────────────────────────────────────────────────────────────────┤
│  F1   Help       ↑↓ Select Item    -/Space Change Values   F9  Setup Defaults │
│  ESC  Exit       ↔  Select Menu      Enter Select ▶ Sub-Menu  F10 Save and Exit │
└───────────────────────────────────────────────────────────────────┘
```

Figure 9.   CPU Features Submenu

Table 9: Fields, Options and Defaults for the CPU Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
SpeedStep(R) Technology:	■ Disabled ■ Enabled	[Enabled]	Enables or disables SpeedStep(R) Technology which allows the user to determine the CPU performance when the tablet is running on AC or battery. This technology decreases power consumption by decreasing CPU speeds.
On Battery:	■ Maximum Performance ■ Battery Optimized ■ Automatic	[Battery Optimized]	Allows the user to select the CPU performance when the system is running on battery power.
On AC:	■ Maximum Performance ■ Battery Optimized ■ Automatic	[Maximum Performance]	Allows the user to select the CPU performance when the system is running on AC power.
XD Bit functionality:	■ Disabled ■ Enabled	[Enabled]	Allows the user to enable and disable the Execute Disable Bit functionality. Execute Disable Bit allows the processor to classify areas in memory where application code can and cannot execute. In the event an internet worm attempts to insert code in the buffer, the processor disables code execution to prevent damage or worm propagation.

USB Features Submenu of the Advanced Menu

The USB Features Submenu configures the USB features for your system.
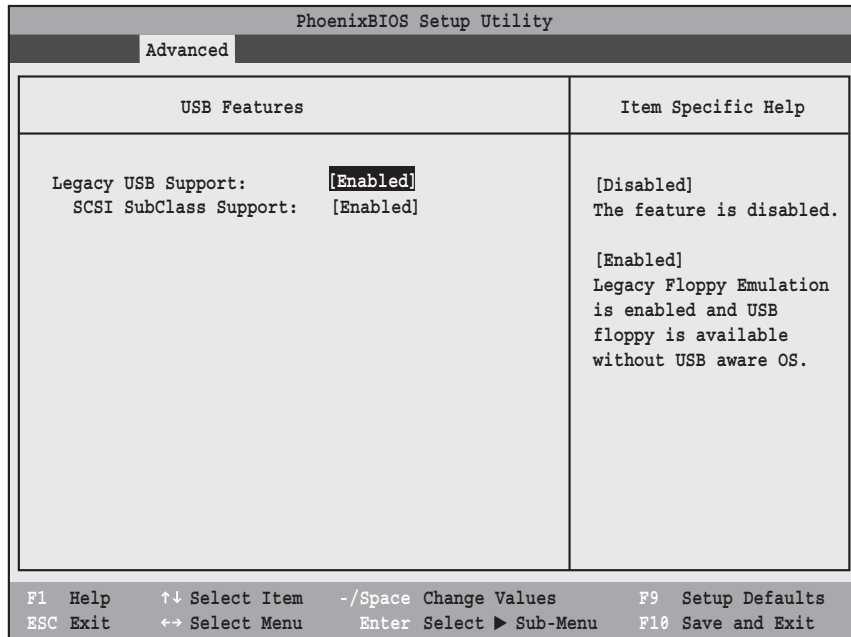
```
                          PhoenixBIOS Setup Utility
             Advanced

               USB Features                        Item Specific Help

      Legacy USB Support:        [Enabled]      [Disabled]
        SCSI SubClass Support:   [Enabled]      The feature is disabled.

                                                [Enabled]
                                                Legacy Floppy Emulation
                                                is enabled and USB
                                                floppy is available
                                                without USB aware OS.




      F1  Help      ↑↓ Select Item   -/Space Change Values    F9  Setup Defaults
      ESC Exit      ←→ Select Menu      Enter Select ▶ Sub-Menu   F10 Save and Exit
```

Figure 10.   USB Features Submenu

Table 10: Fields, Options and Defaults for the USB Features Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Legacy USB Support:	▪ Disabled ▪ Enabled	[Enabled]	When Disabled is selected, legacy USB emulation is disabled. When Enabled is selected, legacy USB emulation is enabled and USB devices are available without USB-aware OS.
SCSI SubClass Support:	▪ Disabled ▪ Enabled	[Enabled]	When Enabled is selected, USB devices that belong to the SCSI subclass in the mass storage class (e.g., USB Memory Key) are enabled.

Miscellaneous Configurations Submenu of the Advanced Menu

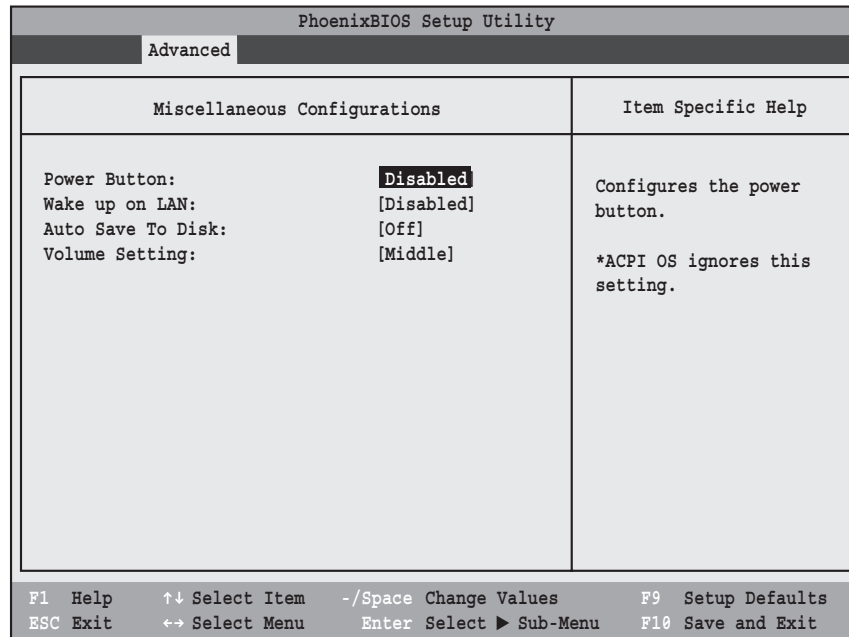The Miscellaneous Configurations Submenu configures miscellaneous features for your system.

```
                         PhoenixBIOS Setup Utility
             Advanced

             Miscellaneous Configurations              Item Specific Help


      Power Button:                  Disabled         Configures the power
      Wake up on LAN:               [Disabled]        button.
      Auto Save To Disk:            [Off]
      Volume Setting:               [Middle]          *ACPI OS ignores this
                                                      setting.













      F1   Help      ↑↓ Select Item   -/Space Change Values     F9   Setup Defaults
      ESC  Exit      ←→ Select Menu     Enter Select ▶ Sub-Menu  F10  Save and Exit
```

Figure 11. Miscellaneous Configurations Submenu

Table 11: Fields, Options and Defaults for the Miscellaneous Configurations Submenu

Menu Field	Options	Default	Description
Power Button:	▪ Disabled ▪ Power Off	[DIsabled]	When Disabled is selected, the power button does not respond to a press. When Power Off is selected, the button turns the power off.
Wake up on LAN:	▪ Disabled ▪ Enabled	[Disabled]	When Enabled is selected, the system will wake up when the internal LAN device receives a Magic Packet while the system is powered off.
Auto Save To Disk:	▪ Off ▪ On	[Off]	Turns the Auto Save To Disk feature on and off. When turned on, when low battery state is reached, the system in suspend state will save its state to disk and power off.
Volume Setting:	▪ Off ▪ Minimum ▪ Middle ▪ Maximum	[Middle]	Allows you to set or disable the system volume level.

Event Logging Submenu of the Advanced Menu

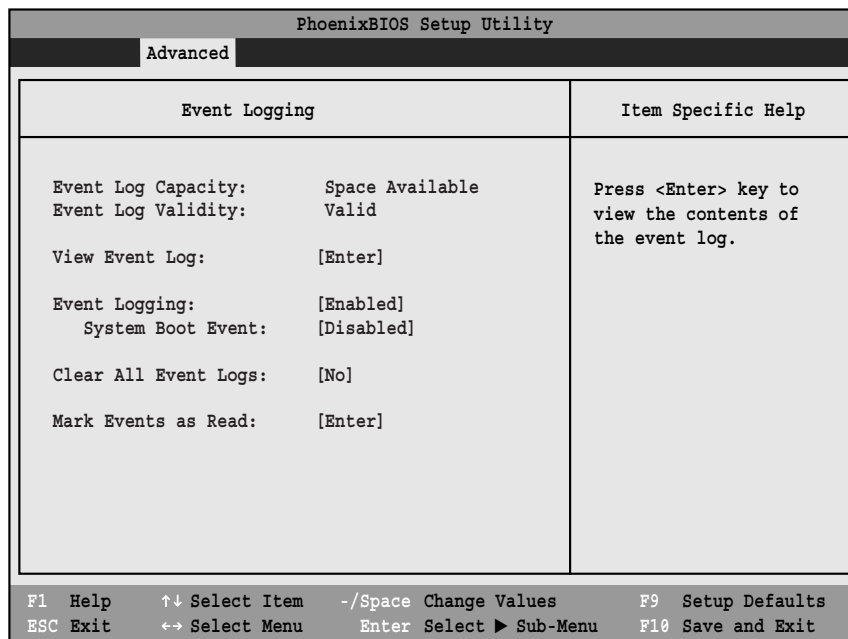The Event Logging Submenu configures event logging features for DMI events.

```
                          PhoenixBIOS Setup Utility
              Advanced

                  Event Logging                      Item Specific Help

       Event Log Capacity:        Space Available     Press <Enter> key to
       Event Log Validity:        Valid               view the contents of
                                                      the event log.
       View Event Log:            [Enter]

       Event Logging:             [Enabled]
          System Boot Event:      [Disabled]

       Clear All Event Logs:      [No]

       Mark Events as Read:       [Enter]

    F1   Help      ↑↓ Select Item    -/Space Change Values    F9   Setup Defaults
    ESC  Exit      ←→ Select Menu       Enter Select ▶ Sub-Menu   F10  Save and Exit
```

Figure 12. Event Logging Submenu

Table 12: Fields, Options and Defaults for the Event Logging Submenu of the Advanced Menu

Menu Field	Options	Default	Description
Event Log Capacity:		Space Available	Display only.
Event Log Validity:		Valid	Display only.
View Event Log:	▪ Enter	[Enter]	Allows you to view content of event log.
Event Logging:	▪ Disabled ▪ Enabled	[Enabled]	Turns event logging on and off for all DMI events.
System Boot Event:	▪ Disabled ▪ Enabled	[Disabled]	Turns event logging on and off for DMI system boot events.
Clear All Event Logs:	▪ No ▪ Yes	[No]	When set to [Yes] all event logs will be cleared at next boot.
Mark Events as Read:	▪ Enter	[Enter]	Allows you to make all events currently in the event log as read.

SECURITY MENU – SETTING THE SECURITY FEATURES

The Security menu allows you to set up the data security features of your tablet to fit your operating needs and to view the current data security configuration. Follow the instructions for Navigating Through the Setup Utility to make any changes. *(See Navigating through the Setup Utility on page 2 for more information)*

Entering a password incorrectly three times in a row will cause the keyboard and mouse to be locked out and the warning `[System Disabled]` to be displayed. If this happens, restart the computer by turning off and on the power with the power switch and use the correct password on reboot. **Note:** Unless you have previously enabled the power switch in the BIOS, it will not be possible to turn off the unit with the switch. This is applicable for non-ACPI OS's.

- If you set a password, write it down and keep it in a safe place. If you forget the password you will have to contact your support representative to regain access to your secured functions and data.

- If you make an error when re-entering the password a `[Warning]` will be displayed on the screen. To try again press the [Enter] key and then retype the password. Press the [Esc] key to abort the password setting process.

- If the Password on Boot is Disabled you will not have to type your password upon resuming the system from the Suspend or Save-to-Disk modes.

The following tables show the names of the menu fields for the Security menu and its submenus, the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use. The default condition is no passwords required and no write protection.
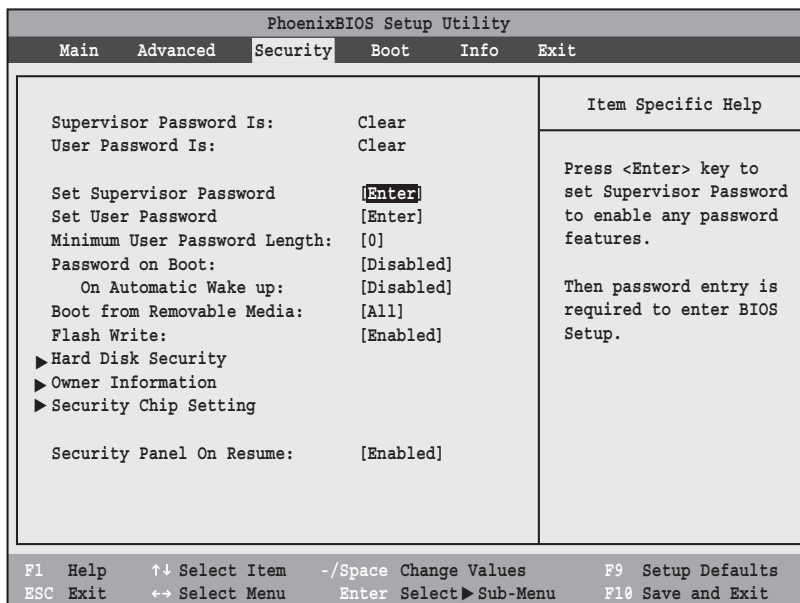
```
                    PhoenixBIOS Setup Utility
    Main      Advanced    Security    Boot      Info      Exit

                                              Item Specific Help

    Supervisor Password Is:       Clear
    User Password Is:             Clear
                                              Press <Enter> key to
    Set Supervisor Password       [Enter]     set Supervisor Password
    Set User Password             [Enter]     to enable any password
    Minimum User Password Length: [0]         features.
    Password on Boot:             [Disabled]
       On Automatic Wake up:      [Disabled]  Then password entry is
    Boot from Removable Media:    [All]       required to enter BIOS
    Flash Write:                  [Enabled]   Setup.
  ▶ Hard Disk Security
  ▶ Owner Information
  ▶ Security Chip Setting

    Security Panel On Resume:     [Enabled]




    F1   Help     ↑↓ Select Item   -/Space Change Values    F9  Setup Defaults
    ESC  Exit     ←→ Select Menu     Enter Select▶Sub-Menu   F10 Save and Exit
```

Figure 13. Security Menu

Table 13: Fields, Options and Defaults for the Security Menu

Menu Field	Options	Default	Description
Supervisor Password is:	⎯⎯	Clear	A display-only field. Set is displayed when the system Supervisor Password is set and Clear when it is not.
User Password is:	⎯⎯	Clear	A display-only field. Set is displayed when the general User Password is set, and Clear when it is not.
Set Supervisor Password	[Enter]	[Enter]	Sets, changes or cancels Supervisor Password. The Supervisor Password may be up to eight characters long and include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Supervisor Password is set it must be used to access the BIOS setup utility.
Set User Password	[Enter]	[Enter]	This field can only be accessed if the Supervisor Password is set. Sets, changes or cancels the User Password. The User Password may be up to eight characters long and must include only letters or numbers (no symbols). Passwords are NOT case-sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a User Password is set it must be used to access the BIOS setup utility.
Minimum User Password Length:	[0]	[0]	Sets the minimum length for User Password.
Password on Boot:	▪ Disabled ▪ First Boot ▪ Every Boot	[Disabled]	When Enabled, a password (User or Supervisor) is required after the Power On Self Test (POST) before the operating system will be read from a disk. When set to Disabled no password is required. If no Supervisor Password is set this feature is not available and no password is required.
On Automatic Wake up:	▪ Disabled ▪ Enabled	[Disabled]	This field is active only when Password On Boot is set to First Boot or Every Boot. When disabled, password entry is not required on automatic wake up on LAN or Real Time Clock. When enabled, the password is still required on automatic wake up.
Boot from Removable Media:	▪ All ▪ Supervisor only	[All]	Selecting Supervisor Only allows supervisor access only.
Flash Write:	▪ Disabled ▪ Enabled	[Enabled]	When set to disabled, the BIOS Flash Memory will be write-protected.
Hard Disk Security	⎯⎯	⎯⎯	Submenu that allows you to configure hard disk security features.
Owner Information	⎯⎯	⎯⎯	Submenu that allows you to set Owner information.
Security Chip Setting	⎯⎯	⎯⎯	Submenu that allows you to configure the security chip.
Security Panel On Resume	▪ Disabled ▪ Enabled	[Enabled]	Allows the Security Panel Feature to be enabled or disabled upon Suspend from Resume.

Hard Disk Security Submenu of the Security Menu

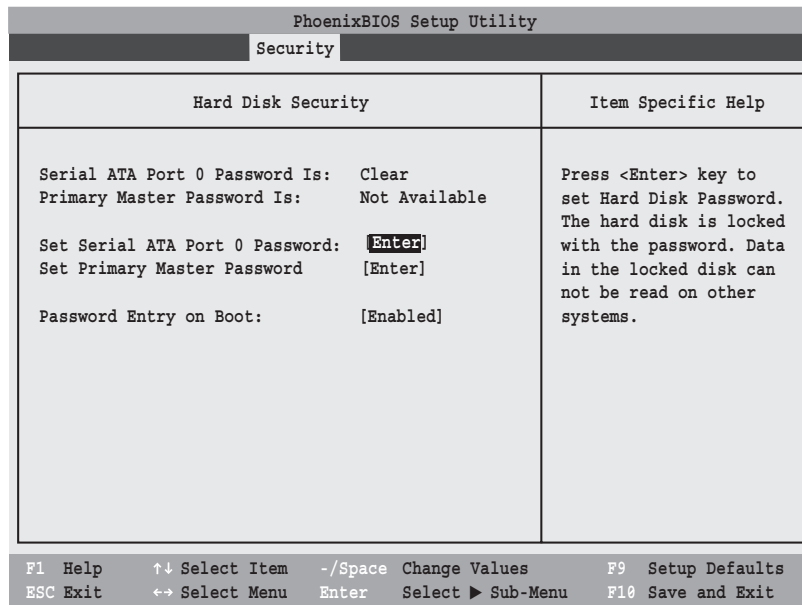The Hard Disk Security Submenu is for configuring hard disk security features.

```
                        PhoenixBIOS Setup Utility
                      Security

        Hard Disk Security                      Item Specific Help

   Serial ATA Port 0 Password Is:   Clear      Press <Enter> key to
   Primary Master Password Is:      Not Available   set Hard Disk Password.
                                                The hard disk is locked
   Set Serial ATA Port 0 Password:  [Enter]    with the password. Data
   Set Primary Master Password      [Enter]    in the locked disk can
                                                not be read on other
   Password Entry on Boot:          [Enabled]  systems.




   F1  Help      ↑↓ Select Item   -/Space  Change Values    F9  Setup Defaults
   ESC Exit      ←→ Select Menu    Enter    Select ▶ Sub-Menu F10 Save and Exit
```

Figure 14. Hard Disk Security Submenu

Table 14: Fields, Options and Defaults for the Hard Disk Security Submenu of the Security Menu

Menu Field	Options	Default	Description
Serial ATA Port 0 Password Is:	---	---	A display-only field. Set is displayed when the Serial ATA Port 0 Password is set and Clear when it is not.
Primary Master Password Is:	---	---	A display-only field. Not Available is displayed.
Set Serial ATA Port 0 Password	---	[Enter]	Sets, changes or cancels Serial ATA Port 0 Password. The password may be up to seven characters long and include only letters or numbers (no symbols). Passwords are NOT case- sensitive. To cancel a password press the Enter key instead of entering characters in the Enter New Password field and in the Re-enter New Password field. When a Serial ATA Port 0 Password is set it must be used to access the hard disk. Data on the hard disk cannot be read on other systems.
Set Primary Master Password	---	[Enter]	Not currently available.
Password Entry on Boot:	▪ Disabled ▪ Enabled	[Enabled]	When this is disabled, it is not necessary to enter the password before booting.The hard disk is still password-protected without entering a password.

22

Owner Information Submenu of the Security Menu

The Owner Information Submenu is for setting owner information. Note that Owner Information cannot be set without having entered a supervisor's password.
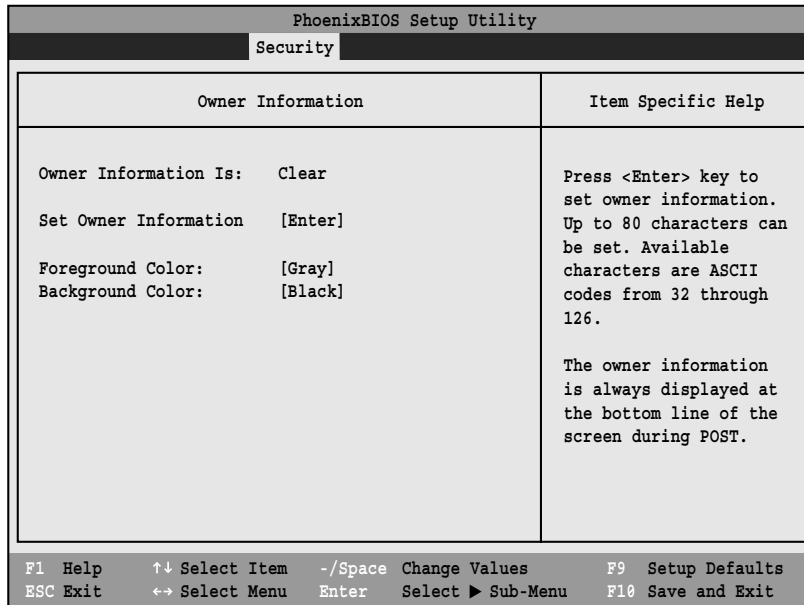
```
                    PhoenixBIOS Setup Utility
              ┌──────────┐
              │ Security │
              └──────────┘
 ┌─────────────────────────────────────────┬─────────────────────────┐
 │          Owner Information               │    Item Specific Help   │
 │                                          │                         │
 │                                          │                         │
 │  Owner Information Is:    Clear          │  Press <Enter> key to   │
 │                                          │  set owner information. │
 │  Set Owner Information    [Enter]        │  Up to 80 characters can│
 │                                          │  be set. Available      │
 │  Foreground Color:        [Gray]         │  characters are ASCII   │
 │  Background Color:        [Black]        │  codes from 32 through  │
 │                                          │  126.                   │
 │                                          │                         │
 │                                          │  The owner information  │
 │                                          │  is always displayed at │
 │                                          │  the bottom line of the │
 │                                          │  screen during POST.    │
 │                                          │                         │
 │                                          │                         │
 │                                          │                         │
 │                                          │                         │
 ├──────────────────────────────────────────────────────────────────┤
 │ F1  Help       ↑↓ Select Item   -/Space Change Values  F9  Setup Defaults │
 │ ESC Exit       ←→ Select Menu   Enter   Select ▶ Sub-Menu  F10 Save and Exit │
 └──────────────────────────────────────────────────────────────────┘
```

Figure 15.   Owner Information Submenu

Table 15: Fields, Options and Defaults for the Owner Information Submenu of the Security Menu

Menu Field	Options				Default	Description
Owner Information Is:	——				Clear	Display only.
Set Owner Information:	——				[Enter]	Field to write owner information (e.g., your name).
Foreground Color:	■ Black ■ Blue ■ Green ■ Cyan	■ Red ■ Magenta ■ Brown ■ White	■ Gray ■ Light Blue ■ Light Green ■ Light Cyan	■ Light Red ■ Light Magenta ■ Yellow ■ Bright White	[Gray]	Set foreground color.
Background Color:	■ Black ■ Blue ■ Green ■ Cyan	■ Red ■ Magenta ■ Brown ■ White	■ Gray ■ Light Blue ■ Light Green ■ Light Cyan	■ Light Red ■ Light Magenta ■ Yellow ■ Bright White	[Black]	Sets background color.

Security Chip Setting Submenu of the Security Menu

The Security Chip Setting Submenu is for enabling or disabling the embedded security chip.
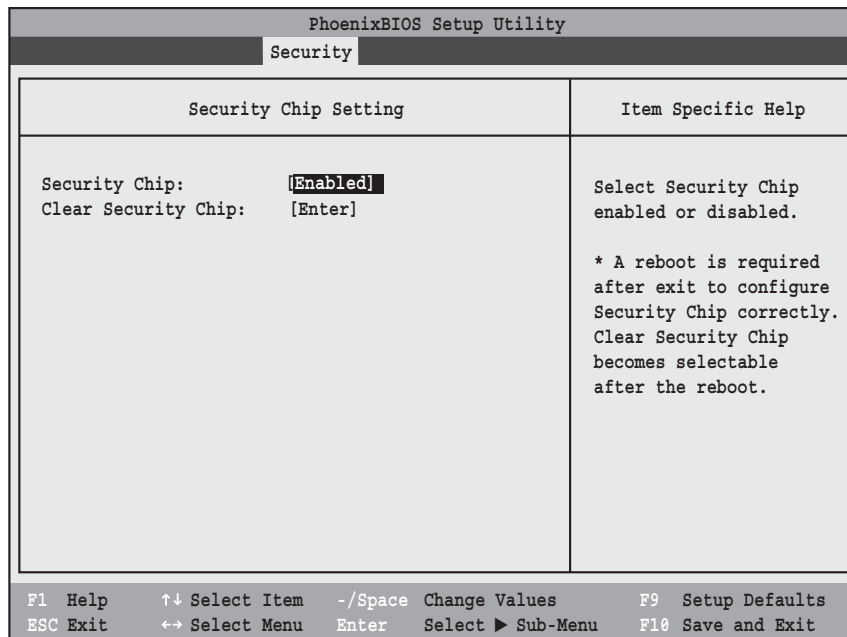
```
                     PhoenixBIOS Setup Utility
                  Security

          Security Chip Setting                      Item Specific Help

    Security Chip:        [Enabled]               Select Security Chip
    Clear Security Chip:    [Enter]               enabled or disabled.

                                                  * A reboot is required
                                                  after exit to configure
                                                  Security Chip correctly.
                                                  Clear Security Chip
                                                  becomes selectable
                                                  after the reboot.

    F1  Help       ↑↓ Select Item   -/Space  Change Values     F9   Setup Defaults
    ESC Exit       ←→ Select Menu    Enter   Select ▶ Sub-Menu  F10  Save and Exit
```

Figure 16. Security Chip Setting Submenu

Table 16: Fields, Options and Defaults for the Security Chip Setting Submenu of the Security Menu

Menu Field	Options	Default	Description
Security Chip:	• Disabled • Enabled	[Disabled]	Select to enable or disable the security chip. Note that after configuring the security chip, a system reboot is required.
Clear Security Chip	____	[Enter]	Allows you to clear the security chip. Note that if you clear the security chip, you will not be able to access data that has already been encrypted.

Exiting from the Security Menu

When you have finished setting the parameters on the Security Menu, you can either exit from setup utility or move to another menu. If you wish to exit from setup utility, press the [Esc] key to go to the Exit Menu. If you wish to move to another menu, use the cursor keys.

BOOT MENU – SELECTING THE OPERATING SYSTEM SOURCE

The Boot Menu is used to select the order in which the BIOS searches sources for the operating system. Follow the instructions for Navigating Through the Setup Utility to make any changes. *(See Navigating through the Setup Utility on page 2 for more information)*

The following tables show the names of the menu fields for the Boot menu and its submenu, all of the options for each field, the default settings and a description of the field's function and any special information needed to help understand the field's use.
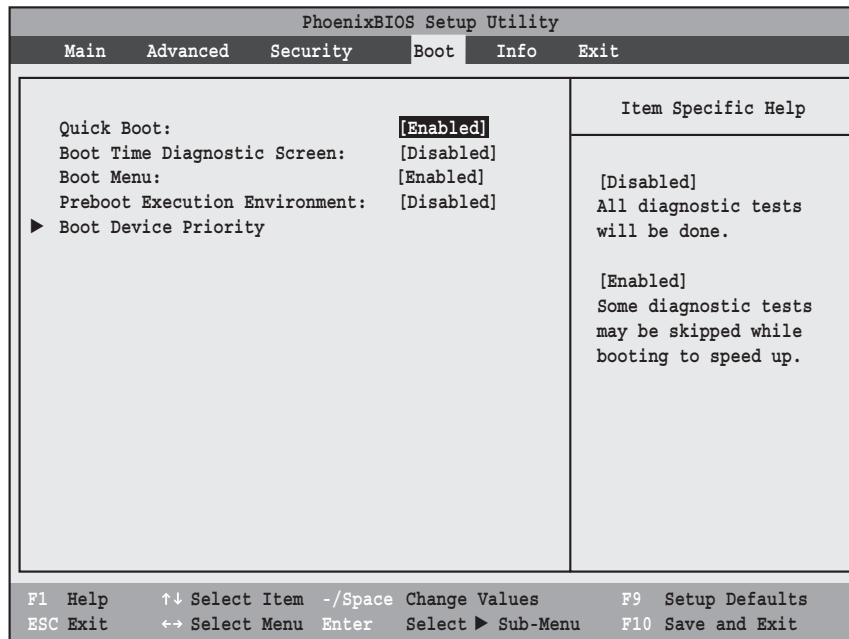
```
                        PhoenixBIOS Setup Utility
        Main    Advanced    Security    Boot    Info    Exit

                                                 Item Specific Help

        Quick Boot:                   [Enabled]
        Boot Time Diagnostic Screen:  [Disabled]
        Boot Menu:                    [Enabled]      [Disabled]
        Preboot Execution Environment: [Disabled]    All diagnostic tests
    ▶   Boot Device Priority                         will be done.

                                                     [Enabled]
                                                     Some diagnostic tests
                                                     may be skipped while
                                                     booting to speed up.



    F1  Help      ↑↓ Select Item  -/Space Change Values    F9   Setup Defaults
    ESC Exit       ←→ Select Menu  Enter   Select ▶ Sub-Menu  F10  Save and Exit
```

Figure 17.   Boot Menu

Table 17: Fields, Options and Defaults for the Boot Menu

Menu Field	Options	Default	Description
Quick Boot:	▪ Disabled ▪ Enabled	[Enabled]	Turns on and off booting with a truncated set of Power On Self Tests. (Fewer tests mean faster turn on.)
Boot Time Diagnostic Screen:	▪ Disabled ▪ Enabled	[Disabled]	Turns on and off display of test results instead of Fujitsu logo screen during Power On Self Test.
Boot Menu:	▪ Disabled ▪ Enabled	[Enabled]	When disabled, the [F12] key cannot be used to invoke the Boot menu. When enabled, click the [F12] button to display the Boot menu while booting up.
Preboot Execution Environment:	▪ Disabled ▪ Enabled	[Disabled]	Turns on and off boot from network server options.
Boot Device Priority:	Selects Boot Device Priority submenu	__	This menu allows setting up the source for the operating system. See "Boot Device Priority Submenu" in the following section. Pressing the [F12] key will also let you choose the boot device.

The Boot Device Priority Submenu of the Boot Menu

The Boot Device Priority Submenu is for setting the order of checking of sources for the operating system.

- Be aware of the operating environment when booting from a CD-ROM/DVD-ROM or you may overwrite files by mistake.

- Bootable thumb (flash) drives will be listed under the "+ Hard Disk Drive" section.
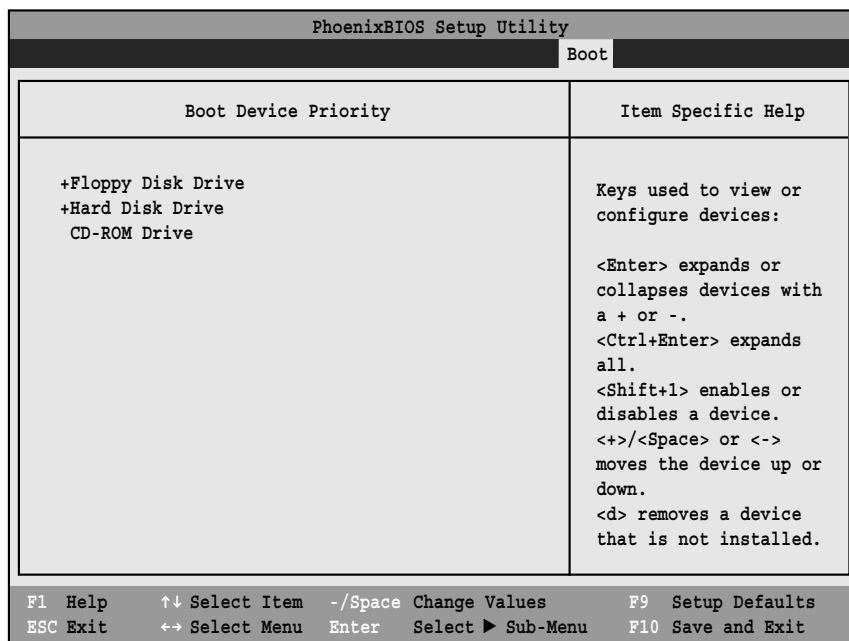
```
                    PhoenixBIOS Setup Utility
                                          Boot

            Boot Device Priority              Item Specific Help

    +Floppy Disk Drive
    +Hard Disk Drive                       Keys used to view or
     CD-ROM Drive                          configure devices:

                                           <Enter> expands or
                                           collapses devices with
                                           a + or -.
                                           <Ctrl+Enter> expands
                                           all.
                                           <Shift+1> enables or
                                           disables a device.
                                           <+>/<Space> or <->
                                           moves the device up or
                                           down.
                                           <d> removes a device
                                           that is not installed.

    F1   Help       ↑↓ Select Item   -/Space  Change Values      F9   Setup Defaults
    ESC  Exit        ←→ Select Menu    Enter    Select ▶ Sub-Menu  F10  Save and Exit
```

Figure 18.   Boot Device Priority Submenu

Table 18: Fields, Options and Defaults for the Boot Device Priority Submenu of the Boot Menu

Menu Field	Description
+Floppy Disk Drive	The boot selections determine the order in which the BIOS searches for the operating system during a startup sequence. To change the order highlight one source by using the [up] or [down] cursor keys and then press the [+] or [-] key to change the order number for that source. Be sure to save your changed order when you exit the BIOS setup utility.
+Hard Disk Drive	
CD-ROM Drive	

Exiting from Boot Menu

When you have finished setting the boot parameters with the Boot menu, you can either exit from the setup utility or move to another menu. If you wish to exit from the setup utility press the [Esc] key to go to the Exit menu. If you wish to move to another menu, use the cursor keys.

INFO MENU – DISPLAYS BASIC SYSTEM INFORMATION

The Info menu is a display only screens that provides the configuration information for your tablet.

The following table shows the names of the menu fields for the Info menu and the information displayed in

those fields. These fields are for information purposes only, and are not editable.

> **i** The information, including CPU type and speed, and total memory, displayed on this screen varies according to the unit you purchased.

```
                    PhoenixBIOS Setup Utility
     Main    Advanced    Security      Boot    Info    Exit


     BIOS Version:     1.03
     BIOS Date:        08/01/2005
     BIOS Area:        E000h - FFFFh

     CPU Type:         Intel(R) Pentium(R) M processor 740
     CPU Speed:        1.73 GHz
     L1 Cache:         64 KB
     L2 Cache:         2048 KB

     Total Memory:     256 MB
       Memory Slot 1: None
       Memory Slot 2: 256 MB DDR2 SDRAM




     F1  Help      ↑↓ Select Item   -/Space Change Values   F9    Setup Defaults
     ESC Exit      ←→ Select Menu   Enter   Select ▶ Sub-Menu  F10   Save and Exit
```
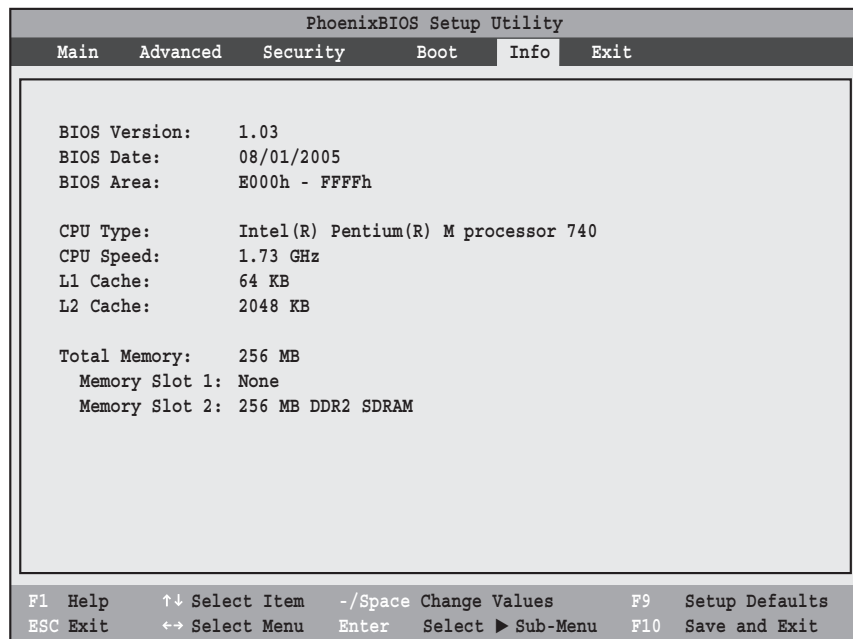
Figure 19. Info Menu

Table 19: Fields, Options and Defaults for the Info Menu
Note that **the parameters listed in the following table may be different,** depending upon your system configuration.

Menu Field	Default	Menu Field	Default
BIOS Version:	1.03	L1 Cache:	64 KB
BIOS Date:	08/01/2005	L2 Cache:	2048 KB
BIOS Area:	E000h – FFFFh	Total Memory:	256 MB
CPU Type:	Intel(R) Pentium(R) M processor 740	Memory Slot 1:	None
CPU Speed:	1.73 GHz	Memory Slot 2:	256 MB DDR2 SDRAM

EXIT MENU – LEAVING THE SETUP UTILITY

The Exit Menu is used to leave the setup utility. Follow the instructions for Navigating Through the Setup Utility to make any changes. *(See Navigating through the Setup Utility on page 2 for more information)*. The following table shows the names of the menu fields for the Exit menu, the default settings and a description of the field's function and any special information needed to help understand the field's use.
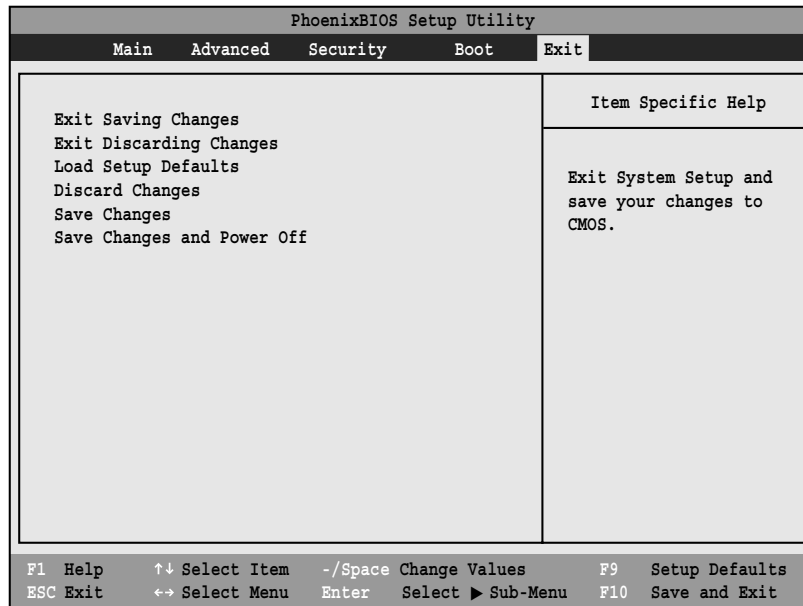
```
                    PhoenixBIOS Setup Utility
         Main     Advanced    Security      Boot    Exit

                                                 Item Specific Help
      Exit Saving Changes
      Exit Discarding Changes
      Load Setup Defaults
      Discard Changes                        Exit System Setup and
      Save Changes                           save your changes to
      Save Changes and Power Off             CMOS.

   F1  Help      ↑↓ Select Item   -/Space Change Values    F9   Setup Defaults
   ESC Exit      ←→ Select Menu   Enter   Select ▶ Sub-Menu F10  Save and Exit
```

Figure 20.   Exit Menu

Table 20: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Exit Saving Changes	Exit Saving Changes and Exit will store all the entries on every menu of the setup utility to the BIOS memory and then exit the setup utility. A confirmation message `Save Configuration changes and exit now? [Yes] [No]` will be displayed.
Exit Discarding Changes	Selecting Exit Discarding Changes and Exit will exit the setup utility without writing to the BIOS memory. When the BIOS recognizes this selection it will load the operating system and begin operation.
Load Setup Defaults	Selecting Load Setup Defaults will load the factory preset default values for all menu fields, then display the message `Load default configuration now? [Yes] [No]`. When confirmed the setup utility will return to the Exit Menu. To return to another menu follow the directions in the Navigating Through the Setup Utility Section.
Discard Changes	Selecting Discard Changes will load the previous values in BIOS memory for all menu fields. The message `Load previous configuration now? [Yes] [No]` will be displayed. When confirmed the utility will return to the Exit menu. To return to another menu, follow the directions in the Navigating Through the Setup Utility Section.

Table 20: Fields, Options and Defaults for the Exit Menu

Menu Field	Description
Save Changes	Selecting Save Changes causes the new settings in all menus to be written to the BIOS memory. The message `Save configuration changes now? [Yes] [No]` will be displayed. When confirmed, the setup utility will return to the Exit menu. To go to another menu, follow the directions in the Navigating Through the Setup Utility section.
Save Changes and Power Off	Selecting Save Changes and Power Off will cause the new settings in all menus to be written to the BIOS memory, then power the system off. The message `Save configuration changes now and power off? [Yes] [No]` will be displayed. When confirmed, the setup utility shut down the system.