### About BootMagic

PowerQuest's BootMagic is a powerful disk-management tool that helps you run multiple operating systems (OSs) on a single PC. Each time you start your computer, BootMagic presents a list of operating systems, letting you select the OS you want to boot. BootMagic also contains a configuration option that lets you quickly select those OSs you want to appear as boot-up choices. With BootMagic, you can switch between OSs, using whichever OS best suits your immediate needs. You can even try out a new OS risk-free, knowing that your old OS is there, readily accessible when you need it.

### Supported operating systems

 Windows 95, 98, Me, and Windows NT 3.51, 4.0, and 2000  Windows 3.x (must be installed with DOS 5.0 or later)

MS-DOS 5.0 or later

PC-DOS 6.1 or later

• Open DOS

 Most other versions of DOS

• Linux

BeOS

OS/2 3.0 or later

 Some other PCcompatible OSs

### **BootMagic Features**

- Support for FAT You can install to any FAT16, FAT16X, FAT32, and FAT32X primary partition.
- Password-protection You can a set up a password for the entire BootMagic Menu or for each operating system listed on the BootMagic Menu. You can also assign a password to the BootMagic configuration program.
- Custom background You can add your own bitmap image to the background of the BootMagic Menu screen.
- Boot from secondary disk You can boot operating systems installed on secondary hard disks.

{button ,JI(`',`H\_How\_Does\_BootMagic\_Work\_')} How does BootMagic work?
{button ,JI(`',`H\_After\_Installing\_BootMagic\_')} After\_installing\_BootMagic\_

 $\{button\ ,JI(`',`H\_After\_Installing\_BootMagic')\}\ \underline{After\ installing\ BootMagic}$ 

{button ,JI(`',`H\_To\_start\_the\_BootMagic\_configuration\_program')} <u>To launch the BootMagic configuration\_program</u>

### How Does BootMagic Work?

BootMagic is composed of two primary parts: the BootMagic Menu and the BootMagic configuration program.

### **BootMagic Menu**

Each time you start your computer, the BootMagic Menu appears, so you can select from multiple operating systems installed on your system.

A timer in the lower-right corner of the BootMagic window displays the user-defined startup delay. This time counts down the seconds until BootMagic automatically starts the default OS. If you move your mouse or press a key on the keyboard, the timer stops and BootMagic waits until you make a menu selection.

Once you choose the desired OS, BootMagic loads the OS's boot record into memory, hides and unhides any necessary partitions, and marks the OS's associated partition as active. BootMagic then launches the OS and disappears, all without affecting the OS in any way.

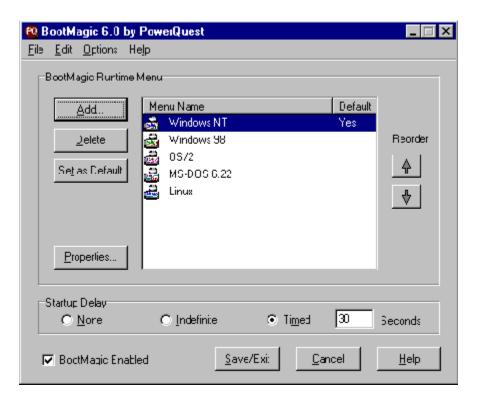
BootMagic works by replacing your system's MBR (Master Boot Record) with its own custom master boot record. Although the original MBR is completely removed, the BootMagic MBR retains all of the current partition table information on your existing OSs. BootMagic also makes a backup copy of the original MBR in case you need to disable or uninstall BootMagic.

After installation, BootMagic sorts through all your system's hard disks, looking at the partition tables and gathering information about each currently installed OS. BootMagic then automatically runs the configuration program, adding every detected OS to the BootMagic Menu.

When you start your computer after installing BootMagic, the system BIOS loads and runs the BootMagic MBR, which, in turn, loads and runs the BootMagic Menu.

### **BootMagic Configuration Program**

You can run BootMagic's configuration program from either the Program group on the Windows taskbar or from the Tools pull-down menu in PartitionMagic. The configuration program lets you specify which OSs appear in the BootMagic Menu and lets you set various boot-time options such as a default OS and a startup delay.



The BootMagic Runtime Menu group box lists all the OSs available as boot up choices when you start your computer; there are six in the illustration above. The Menu Name column displays the user-specified name for each

 $\ensuremath{\mathsf{OS}}$  and the Default column identifies which  $\ensuremath{\mathsf{OS}}$  is the system default.

The BootMagic configuration program is available to you in a DOS version or in a Windows 95/98/NT version. Both versions look and function the same way.

### After Installing BootMagic

After installation, BootMagic sorts through your system's hard disks, looking at the partition tables and gathering information about each currently installed operating system. BootMagic then automatically runs the configuration program, adding every detected OS to the BootMagic Menu.

At this point, you may need to edit the OSs in the menu list. While BootMagic reliably detects most OSs, it may also detect some non-OS partitions. For example, if you have a primary NTFS data partition on the first disk, BootMagic may detect it as Windows NT. Likewise, an HPFS data partition may be detected as OS/2, and a FAT16 or FAT32 data partition may be detected as MS-DOS or Windows 95/98. Because these non-OS partitions cannot be booted, you should removed them from the menu list. You can also choose to add or remove other OS selections, modify OS names and icons for easier identification, set a new startup delay, or select a different default OS.

For information on identifying non-OS partitions in the menu list, click **See Also** on the Help toolbar. For more information on the BootMagic configuration program, select **Contents** from the help menu bar and open the **Configuring BootMagic** book in the Help Topics outline.

After you make any necessary changes, click **Save/Exit**. The next time you reboot your computer, the **BootMagic Menu** appears. To start an OS, select the menu item you want to start.

## To start the BootMagic configuration program

- 1 From the Windows taskbar, click **Start ▶ Programs**
- ▶ PowerQuest BootMagic
- ▶ BootMagic Configuration

- From PartitionMagic, click **Tools BootMagic Configuration**.
- From a DOS prompt, type drive:\BTMAGIC.PQ\CONFIG.BAT (replace drive with the drive letter where CONFIG.BAT is located), then press <Enter>.
- For more information on the BootMagic configuration program, select **Contents** from the help menu bar and open the **Configuring BootMagic** book in the Help Topics outline.

### **About BootMagic Enabled**

Use BootMagic Enabled to turn BootMagic on or off. This option must be enabled (selected) for the configuration options to be available. If you disable BootMagic, the default operating system is automatically booted when you start your computer (or until you enable BootMagic again).

You may want to consider disabling BootMagic if you are diagnosing an OS startup problem and need to reboot your system multiple times. This will let you bypass loading BootMagic every time. Disabling BootMagic replaces the BootMagic MBR (master boot record) with a copy of your original MBR. When you reboot your computer, BootMagic no longer loads and the default OS is automatically booted.

Disabling BootMagic does not destroy any of your configuration settings. All of the current settings are saved until BootMagic is enabled again.

{button ,JI(`',`H\_To\_disable\_BootMagic')} To disable BootMagic

### To disable BootMagic

- 1 From the BootMagic configuration program, click File ▶ BootMagic Enabled.
- 2 Click File > Save/Exit to save your changes and exit the configuration program.

  BootMagic remains disabled until you enable it again. To enable BootMagic, run the configuration program from either your hard disk or the BootMagic rescue disk. Select the BootMagic enabled check box in the BootMagic configuration window. When BootMagic is enabled, it saves a copy of the current MBR, then reinstalls the BootMagic MBR. Upon reboot, BootMagic loads normally, and all the previous configuration settings are restored.

#### Tips

• To enable BootMagic, you can run the BootMagic configuration program from the Windows taskbar (click **Start ▶ Programs** 

### ▶ PowerQuest BootMagic

▶ BootMagic Configuration, or from the BootMagic rescue diskette (follow the on-screen instructions to start the BootMagic configuration program). Select BootMagic Enabled, then click Save/Exit.

## **About Create Rescue Diskette**

During installation of BootMagic, you were given the option to create a BootMagic rescue diskette. This diskette is vital if your system's MBR (master boot record) is damaged or overwritten. The diskette can also be helpful if you disable BootMagic and cannot access the configuration program to enable it.

If you did not create a rescue diskette during installation, you should do so now. PowerQuest technical support may not be able to help you if you have not created a rescue diskette.

{button ,JI(`',`H\_To\_create\_rescue\_diskettes')} <u>To create rescue diskettes</u>

## To create rescue diskettes

**1** From BootMagic configuration program, click **File ▶ Create Rescue Diskette**, then follow the on-screen instructions.

# Tips

• After the BootMagic DOS install, DOS users should run C:\BTMAGIC.PG\MKRESCUE.BAT at a DOS prompt to create the rescue disks.

## About Creating an Operating System Boot Diskette

Boot diskettes are an invaluable tool for diagnosing and repairing certain OS problems. Some OSs, such as Windows 95/98 and Windows NT, give you an opportunity to create a rescue boot diskette during installation. This is the diskette that should be used if you ever experience OS failure.

DOS does not automatically provide an option for creating a boot diskette. However, you can easily create a boot diskette for DOS. You can also create a boot disk for Windows 95/98, if necessary.

{button ,JI(`',`H\_To\_create\_an\_operating\_system\_boot\_diskette')} <u>To create an operating system boot diskette</u>

### To create an operating system boot disk

- 1 Insert a blank, formatted disk into drive A.
- 2 From the Windows taskbar, click Start ▶ Run.
- **3** Type SYS A: in the Open text box, then click **OK**.
- **4** Copy the following files from your hard disk to the A: drive: SYS.COM, EDIT.COM, FDISK.EXE, FORMAT.COM, and ATTRIB.EXE.

In Windows 95/98, these files are usually located in the \WINDOWS\COMMAND subdirectory. In DOS, these files can be found in the \DOS subdirectory.

- If you are running DOS, type SYS A: at the DOS prompt, then press <Enter>. The system files are copied onto the floppy disk.
- You may also want to copy additional files, such as a CD-ROM driver, SCANDISK.EXE, CHKDSK.EXE, or XCOPY.COM. These files extend the capabilities of your boot diskette.
- Be sure to write-protect the disk and clearly label it for easy identification.

# **About Cancel**

Use Cancel to discard all configuration changes and exit  ${\tt BootMagic}.$ 

 $\{button\ ,JI(`',`H\_To\_cancel\_your\_configuration\_changes')\}\ \underline{\textit{To\ cancel\ your\ configuration\ changes}}$ 

# To cancel your configuration changes

- **1** From the BootMagic configuration program, click **File ▶ Cancel**.
- 2 Click **No** to cancel your changes and exit.

## About Save/Exit

Use Save/Exit to save all configuration changes you have made and exit the BootMagic configuration program. {button ,JI(`',`H\_To\_save\_and\_exit\_BootMagic')} To save and exit\_BootMagic

# To save and exit BootMagic

**1** From the BootMagic configuration program, click **File ▶ Save/Exit**.

# Tips

• You can also click **Save/Exit**, or you can right-click in the BootMagic Runtime Menu group box, then select **Save/Exit**.

## **About Add**

The BootMagic Menu appears each time you start or restart your computer, listing all bootable operating systems. You can use Add in the BootMagic configuration program to add an operating system to the menu. {button ,JI(`',`H\_To\_add\_an\_operating\_system\_to\_the\_BootMagic\_menu')} To add an operating system to the BootMagic Menu

# To add an operating system to the BootMagic Menu

**1** From the BootMagic Configuration program, click **Edit ▶ Add**.

The BootMagic Add OS dialog box lists all the system OSs detected by BootMagic.

Colu	Description
mn Headi	
ng	
Used	Specifies whether the OS partition is already included in the BootMagic Menu.
OS Name	Displays the detected name for the operating systems. If no OS is detected, or if BootMagic is unable to identify the OS, this column displays Unknown.
	BootMagic may sometimes detect an OS that does not exist or may detect the wrong name for an existing OS. For help on finding the operating system and partition you want, click <b>See Also</b> on the Help toolbar.
Volum	Lists the name
е	assigned to the
Name	partition.
Partiti	Identifies the
on Type	partition's file system type (for example, FAT16, FAT32, NTFS, HPFS, Ext2, and so on). If the partition is an extended partition, its partition type is listed as Extended.
Disk	Specifies the system hard disk on which the partition is located (for example, 1 is the first hard disk, 2 is the second, and so on).
Partiti on	Identifies the partition as either Primary (Pri) or Logical (Log) and also identifies its

location on the hard disk (for example, Pri-2 is the second primary partition, Log-1 is the first logical partition, and so on).

- 2 (optional) Select Advanced to view all your system's partitions, including those that BootMagic does not recognize as containing an OS
- **3** Select the OS you want to add to the BootMagic Menu.

Do not add non-OS partitions to the BootMagic Menu. You cannot boot your computer from a partition without an OS. If you add a partition that does not have an OS and try to boot, you will be left with a black screen.

- 4 Click OK.
- **5** Define the menu properties you want, and then click **OK**.

The OS appears in the BootMagic Runtime Menu list and will appear as a boot-up choice the next time you start your computer.

- In step 1 you can also click Add, or you can right-click in the BootMagic Runtime Menu group box, then select
   Add.
- The Advanced option is useful if BootMagic does not detect an OS you want to add to the BootMagic Menu. For more information on finding the right operating system and partition you want, click **See Also** on the Help toolbar

## **About Delete**

Use Delete to remove a selected operating system from the BootMagic Runtime Menu list. This option does not delete the operating system from the hard disk, nor does it prevent the operating system from being added again to the menu.

 $\{button \ , JI(`', `H_To_delete_an_operating\_system_from\_the\_BootMagic\_menu')\} \ \underline{To \ delete \ an \ operating \ system\_from \ the \ BootMagic \ Menu}$ 

## To delete an operating system from the BootMagic Menu

- 1 From the BootMagic configuration program, select the OS name you want to delete from the **BootMagic Runtime Menu** list.
- 2 Click Edit > Delete.

- In step 2, you can also click **Delete**, or you can right-click in the BootMagic Runtime Menu group box, then click **Delete**.
- Deleting an OS from the **BootMagic Menu** does not remove the OS from the hard disk. The OS remains in its partition.

## **About Set as Default**

Use Set as Default to specify which operating system you want to use as the system default. BootMagic automatically selects the OS in the home partition (that is, the partition in which BootMagic is installed) as the system default. This is the OS that BootMagic automatically boots if no other OS is chosen before the startup delay expires, if the startup delay is set to None, or if you disable BootMagic.

{button ,JI(`',`H\_To\_specify\_the\_default\_operating\_system')} To specify the default operating system

# To specify the default operating system

- ${\bf 1} \ {\hbox{From the BootMagic Configuration program, select the OS you want to set as the system default.}$
- 2 Click Edit ▶ Set as Default.

# Tips

• In step 2, you can also click **Set as Default**, or you can right-click in the BootMagic Runtime Menu group box, then select **Set as Default**.

## **About Properties**

Use Properties to view or edit the selected operating system's runtime menu properties. For example, you can review, among other things, the selected OSs name, volume name, and partition type. You can the change operating system's name that appears on the BootMagic Menu, assign a password to menu name, or change the icon that represents the selected OS.

You can also use Properties to identify which primary partitions on the first disk are visible when the selected OS is booted. Visible partitions are checked; hidden partitions are not.

 $\{button \ , JI(`', `H_{To\_choose\_general\_menu\_item\_properties'}) \} \ \underline{To \ choose \ general \ menu \ item \ properties} \\ \{button \ , JI(`', `H_{To\_choose\_visible\_partition\_properties'}) \} \ \underline{To \ choose \ visible\_partition\_properties}$ 

### To choose general menu item properties

1 From the BootMagic configuration program, select the OS whose properties you want to change, from the BootMagic Runtime Menu list box.

### 2 Click Edit Properties

### General.

3 Type a name for the selected OS, in the Name text box.

The name you type will appear on the BootMagic Menu at startup.

- **4** Click **Set Password** to assign a password to the OS that appears on the BootMagic Menu. The password is used when you select the OS on the BootMagic Menu that you want to boot.
- **5** Type your old password (if available).
- **6** Type your new password, then type it again in the Confirm new password text box.
- 7 Click OK.
- 8 Click Change Icon.
- 9 Navigate to the BootMagic ICO folder.
- 10 Choose an icon for the selected OS.

The icon you select will appear on the BootMagic Menu at startup.

### 11 Click OK.

- In step 1, you can also right-click in the BootMagic Runtime Menu group box, then click **Properties**.
- In step 10, you can use any 16-color, 32x32 pixel icons with a .ICO file extension.
- You can also set passwords for the BootMagic configuration program itself and for the BootMagic Menu at startup.
- To disable the password setting, follow steps 1 and 2 above, but do not enter a new password.
- The General tab also contains the following information for your review:

Na	Purpose
me	
OS	Displays the user- defined name for the OS.
Vol um e Na me	Specifies the name assigned to the partition.
Par titi on Typ e	Specifies the partition's file system type (for example, FAT16, FAT32, NTFS, HPFS, Ext2, and so on). If the partition is an extended partition, its partition type is listed as Extended.
Dis k	Specifies the system hard disk on which the partition is located (for example, 1 is the first hard disk, 2 is the second, and so on).

Par Specifies the partition titi as either Primary (Pri) on or Logical (Log) and also identifies its location on the hard disk (for example, Pri-1 is the first primary partition, Log-2 is the second logical partition, and so on).

## To set menu item password

1 From the BootMagic configuration program, select the OS whose properties you want to change, from the BootMagic Runtime Menu list box.

# 2 Click Edit > Properties

## **▶** General.

- Click **Set Password** to assign a password to the OS that appears on the BootMagic Menu. The password is used when you want to boot the selected OS.

  Type your old password (if available).

  Type you new password, then type it again in the Confirm new password text box.

6 Click OK.

### To choose visible partition properties

1 From the BootMagic configuration program, select the OS in the BootMagic Runtime Menu list box whose properties you want to change.

#### 2 Click Edit > Properties

### Visible Partitions.

**3** Select the disk containing the primary partitions you want to make visible, from the Disk drop-down list. This option is dimmed (unavailable) if you have not enabled (selected) Advanced Partition Hiding on the Options pull-down menu.

### 4 Select Override Default Selections.

**5** Select the primary partitions you want to make visible, or deselect the partitions you want to hide. If you need to make a primary partition visible, you should be aware that with some OSs (such as Windows 95/98 and OS/2), making a second primary partition visible can cause errors and data loss.

- In step 1, you can also right-click in the BootMagic Runtime Menu group box, then click **Properties**.
- In step 4, partitions that cannot be hidden or visible are dimmed, preventing you from modifying their status. For example, the partition the selected OS boots from cannot be hidden; therefore, it is dimmed; its status cannot be overridden.
- In step 3, when the Advanced Partition Hiding option is selected, BootMagic will hide all primary partitions except for the one you are booting. When Advanced Partition Hiding is not selected, BootMagic will unhide only the partition being booted. Advanced Partition Hiding is not selected by default.
- Only partitions that are FAT, FAT32, HPFS, and NTFS may be hidden.
- The Override Default Selections option is most useful for certain types of Windows NT installations. For example, if your Windows NT boot files are installed on one primary partition, but all the remaining NT files are installed to a different primary partition, BootMagic may not always make the second partition visible. Also, if you have a primary data partition that you use with Windows NT, BootMagic may keep it hidden. By using Override Default Selections, you can make these partitions visible and accessible when Windows NT is booted.

# **About Startup Delay**

Use Startup Delay to specify the length of time BootMagic waits for an OS to be chosen before it automatically boots the default OS.

{button ,JI(`',`H\_To\_specify\_a\_startup\_delay')} <u>To specify a startup delay</u>

### To specify a startup delay

- 1 From the BootMagic configuration program, click **Options** ▶ **Startup Delay**.
- **2** Select the delay option you want from the pop-out list.

Description Del ay Opt ion Non Specify no startup delay; е at startup, BootMagic will immediately boot the default OS. Inde Specify an unlimited finit delay; BootMagic will display the runtime е menu until you choose the OS you want to boot. Tim Specify a timed delay (1ed 99 seconds); BootMagic will wait the specified amount of time so you can choose the OS you want to boot. If you do not make a selection within the specified time, the default OS is used. A 30-second timed delay is the BootMagic default.

### **Tips**

- You can also click the delay option you want from the Startup Delay group box.
- If you set the startup delay to either None or Timed, you must also ensure that a valid OS item is selected as the system default. Without a default OS, BootMagic cannot automatically boot your system.
- If you set the startup delay to None and select a default OS that cannot run the BootMagic configuration program, you will be unable to modify the configuration settings and boot other OSs. If this happens, boot your computer while holding down the left Shift key. This overrides the timer settings and opens the BootMagic Menu without a timer (as the indefinite option) for that one boot.

You can then select DOS or Windows from the BootMagic Menu, run the BootMagic configuration program, and change either the default OS or the startup delay

## **About Advanced Partition Hiding**

Use Advanced Partition Hiding to turn on or off support for secondary disk booting in BootMagic.

When the Advanced Partition Hiding option is selected, BootMagic will hide all primary partitions except for the one you are booting. This option is not selected by default.

{button ,JI(`',`H\_To\_enable\_advanced\_partition\_hiding')} To enable advanced partition hiding

# To enable advanced partition hiding

**1** From the BootMagic configuration program, click **Options ▶ Advanced Partition Hiding**.

## Tips

• To disable advanced partition hiding, repeat step 1. Note, however, that you can change the visible primary partitions on secondary hard disks only if this option is enabled.

# **About Set Configuration Password**

Use Set Configuration Password to assign a configuration password. The password is used when you want to start the BootMagic configuration program.

 $\{button\ ,JI(`',`H\_To\_set\_the\_configuration\_password')\}\ \underline{To\ set\ the\ configuration\ password}$ 

## To set the configuration password

- **1** From the BootMagic configuration program, click **Options ▶ Set Configuration Password**.
- **2** Type your old password (if available).
- Type you new password, then type it again in the Confirm new password text box.

  The next time you start the BootMagic configuration program, you will need to enter the password to access the program.

- In step 2, the Old password text box will be blank and disabled if you have not previously set a password in this dialog box. In such case, go to step 3.
- To disable the password setting, follow steps 1 and 2 above, but do not enter a new password.

## **About Set Boottime Password**

Use Set Boottime password to assign a boot time password. The password is used when you want to start the BootMagic Menu.

 $\{button\ ,JI(`',`H\_To\_set\_the\_boottime\_password')\}\ \underline{To\ set\ the\ boottime\ password}$ 

## To set the boottime password

- **1** From the BootMagic configuration program, click **Options ▶ Set Boottime Password**.
- **2** Type your old password.
- Type you new password, then type it again in the Confirm new password text box.

  The next time you startup (or restart) your computer, you will need to enter the password to access the BootMagic Menu.

- In step 2, the Old password text box will be blank and disabled if you have not previously set a password in this dialog box. In such case, go to step 3.
- To disable the password setting, follow steps 1 and 2 above, but do not enter a new password.

## **About Change Background Bitmap**

Use Change Background Bitmap to select the background bitmap (.BMP) image you want to display in the BootMagic Menu background. For example, you could include your own company logo or a simple color background.

The bitmap file should be 640x480 and can have up to 16 colors from the standard Windows 16-color palette. {button ,JI(`',`H\_To\_change\_the\_BootMagic\_background\_image')} To change the BootMagic background image

## To change the BootMagic background image

- **1** From the BootMagic configuration program, click **Options ▶ Change Background Bitmap**.
- Navigate to the bitmap image you want. The bitmap should be 640x480 with a .BMP file extension, and can have up to 16 colors from the standard Windows 16-color palette.

  3 Click **OK**.

The bitmap image you select will appear in the background of the BootMagic Menu at startup.

# Tips

• In step 2, click **Default** to use the default bitmap background image on the BootMagic Menu.

#### **About Help**

When you are in the BootMagic Configuration program you can get help by accessing Contents from the Help pull-down menu. You can look up keywords in the Help Index or Find text in Help topics.

#### **Additional Resources**

The following additional resources contain information on installing, configuring, and using BootMagic.

- PartitionMagic User Guide Your user guide provides explanations of the BootMagic tools and features. The guide also provides step-by-step instructions on performing specific tasks.
- **README.TXT File** BootMagic's README.TXT is an invaluable resource for the most current information at the time the product shipped. It includes information that may have changed since the user guide was printed, corrections to the user guide or online Help system, and information specific to installation and configuration issues.

To access README.TXT from the Windows taskbar, click **Start** Programs

#### ▶ PowerQuest BootMagic

- ▶ **Read Me**, or you can access the file on your BootMagic rescue diskette.
- **PowerQuest Web Site** PowerQuest's corporate web site located at <a href="www.powerquest.com">www.powerquest.com</a> contains a variety of information, including technical white papers, frequently-asked questions, support information, and news about product updates.

### **Finding the Right Operating System**

BootMagic lists all OSs detected on your system in the BootMagic Add OS dialog box. Occasionally though, an existing OS may not be listed, an OS may be listed with an incorrect name, or a non-bootable partition may be listed as containing an OS.

BootMagic uses a partition's file system and boot record to detect an OS. After identifying the partition's file system, BootMagic looks at the partition's boot record. If it finds a valid boot record, BootMagic assumes the partition is bootable. It then uses the system filenames in the boot record to identify the OS. Using this method, it is difficult to determine the difference between some OSs such as Windows 95, Windows 98, or MS-DOS. Consequently, BootMagic may accurately detect a partition-based OS, but misname it in the Add OS dialog box.

In other instances, some data partitions may contain a boot record with OS system filenames, but not actually contain a bootable OS. Because BootMagic uses the boot record to identify an OS, it will list an OS name for the partition in the Add OS dialog box, even though the partition is not actually bootable.

If there are inaccurate entries in the Add OS dialog box, use the following information to help you distinguish between OS entries and non-bootable partitions:

- The Add OS dialog box lists each detected OS and its volume name, partition type, partition, and disk information. Because you know which OSs you have installed on which partitions, you can use this information to identify a desired OS. For example, if you want to find a Windows NT OS that is installed on the first partition of the first hard disk, you can look for an OS entry with a NTFS partition type, a Pri-1 partition, and a 1 disk.
- If the OS you need is not listed in the Add OS dialog box, select **Advanced** to display all your system partitions. You can then use the volume name, partition type, partition, and disk information to identify the desired OS. For example, if you are looking for a Linux OS installed on the third logical partition of the second hard disk, simply find the OS entry with an Ext2 partition type, a Log-3 partition, and a 2 disk.
- Occasionally, BootMagic may detect non-bootable partitions as containing an OS. This is due to the fact that
  most data partitions are marked as bootable when they are created, even though there is no OS installed. For
  example, if you have a primary NTFS data partition on the first disk, it may contain a boot record even though
  the partition is not bootable. Because BootMagic uses the partition boot record to identify an OS, BootMagic
  detects the partition as having a bootable Windows NT OS.
  - If a non-bootable partition has been added to the BootMagic Menu list by mistake, you can easily remove it. Just identify the non-OS entry using the volume name, disk, partition, and partition type information listed in the General tab of the BootMagic Menu Item Properties dialog box, then delete the non-bootable menu item from the list.

For more information on menu item properties or removing a menu item from the BootMagic Menu, click **See Also** on the Help toolbar.

• If you have narrowed your search to two or three OS entries, but still cannot determine which is which, add the OS entries to the BootMagic Menu. Reboot your computer, then select one of the unidentified OS items from the menu. Once you see which OS (if any) is booted by the menu item, you can use the BootMagic configuration program to rename the entry and change its icon. Repeat this process to identify any other unknown operating systems.

### **About Installing a New Operating System**

BootMagic makes installing multiple OSs on your system easy. Follow these general guidelines when installing a new OS:

- Before installing any new OS, back up your system and make bootable diskettes for both your current OS and BootMagic. Although the backup and boot diskettes may never be necessary, they provide a safety net should any problems occur.
- Some OSs require that you reboot your computer during installation. If this happens, you should reboot as required. If the BootMagic Menu appears, you should boot from an existing OS. Run the BootMagic configuration program, then add the new OS as a menu item to the BootMagic Menu. Reboot your computer and choose the new menu item; this will continue the new OS installation.
- If an OS installation gives you the option of installing the OS boot code to either the master boot record (MBR) or the partition, choose the partition. Otherwise, the OS installation will overwrite the BootMagic MBR and disable BootMagic.
  - If the MBR is overwritten by mistake, or if BootMagic fails to appear after an OS installation, you can easily fix the problem by running the BootMagic configuration program (either from your hard disk or from the BootMagic rescue diskette) and re-enabling BootMagic. When you save the configuration and exit the program, BootMagic rewrites the MBR.
- After installing a new OS, you must run BootMagic's configuration program to add the new OS to the BootMagic Menu. New OSs are not automatically added to the menu.

You can install an OS to a primary partition or a logical partition. If you plan to install either Windows NT or OS/2 to its own partition, you should install to a logical partition. Note that Windows NT requires several boot files to be located on a primary partition on the first hard disk.

{button ,JI(`',`To\_install\_to\_a\_primary\_partition')} <u>To install a primary partition</u> {button ,JI(`',`To\_install\_to\_a\_logical\_partition')} <u>To install to a logical partition</u>

# To install to a primary partition

- 1 Create the partition using PowerQuest PartitionMagic or a similar partitioning utility.
- 2 Make the primary partition active using PartitionMagic, PQBoot or PQBoot32 from Windows 95/98/NT.
- **3** When finished, reboot your computer and insert the OS's installation disk.
- 4 Proceed with the installation as normal.

# Tips

• If you plan to install either Windows NT or OS/2 to its own partition, you should install to a logical partition instead. Note that Windows NT requires several boot files to be located on a primary partition on the first hard disk.

# To install to a logical partition

Windows NT

- 1 Decide which primary partition you want to have the Windows NT boot files located.
- 2 Make that primary partition active using PartitionMagic, PQBoot or PQBoot32 from Windows 95/98/NT.
- 3 Insert the Windows NT installation disk and reboot the computer.
- **4** Proceed with the installation as normal.

OS/2

- 1 Insert the OS/2 installation disk and reboot your computer.
- 2 Proceed with the installation as normal.

## Tips

• Note that Windows NT requires several boot files to be located on a primary partition on the first hard disk.

### **Installation Issues for Specific Operating Systems**

Click one of the links below for information on the installation requirements of a specific OS.

```
\label{eq:button_JI(`',`H_DOS')} $$ \underline{DOS}$ $$ \{button_JI(`',`H_Windows_3')\} $$ \underline{Windows_3.x}$ $$ \{button_JI(`',`H_Windows_95')\} $$ \underline{Windows_95/98}$ $$ \{button_JI(`',`H_Windows_NT')\} $$ \underline{Windows_NT'}$ $$ \{button_JI(`',`H_OS2')\} $$ \underline{OS/2}$ $$ \{button_JI(`',`H_BeOS')\} $$ \underline{BeOS}$ $$ \{button_JI(`',`H_Linux')\} $$ \underline{Linux}$ $$
```

#### DOS

BootMagic supports the installation of most versions of DOS. In general, DOS must be installed on the first hard disk and in a primary FAT partition that starts within the first 2 GB of the disk. To ensure proper operation with BootMagic, we further recommend that DOS be installed completely within the first 2 GB of the disk.

BootMagic can boot some installations of DOS from a primary FAT partition on the secondary disk. For more information, click **See Also** on the Help toolbar.

Some versions of DOS repartition, reformat, or otherwise reconfigure the hard disk during installation. This can result in data loss on one or more of the disk's partitions. Therefore, if prompted to partition, format, or configure the disk during a DOS installation, deny the request.

If a DOS installation refuses to proceed unless it reconfigures the disk, you can try the following steps.

- 1 Exit setup.
- 2 At the A:\ prompt, type SYS <drive letter:>, where drive letter is the letter of the drive to which you are installing DOS.

The SYS command copies the DOS system files to the disk.

3 Reboot your computer, leaving the installation disk in the floppy drive, and restart setup.

When it detects the system files on the disk, the DOS setup asks if you would like to replace the current operating system. Select **Yes**, and proceed with the installation.

#### Windows 3.x

Windows 3.x cannot run as an independent operating system. Instead, it must run on top of an active DOS OS. Consequently, Windows 3.x is limited by the same restrictions that apply to DOS (see above).

Because Windows 3.x is not an independent OS, BootMagic does not recognize it as bootable. In other words, BootMagic will not boot directly to Windows 3.x. Instead, it boots the DOS over which Windows 3.x runs.

To boot Windows 3.x from BootMagic,

- 1 Add the DOS OS to the BootMagic Menu and boot to that DOS.
- 2 Use a text editor (such as EDIT.COM) to edit the AUTOEXEC.BAT file.
- 3 Add the WIN command as the last line of the file.

This command causes DOS to automatically launch Windows 3.x.

- **4** Run the BootMagic configuration program.
- 5 Rename the DOS OS menu item and change its icon to identify it as Windows 3.x on the BootMagic Menu.
- 6 Click Save/Exit.

## Windows 95/98

In general, both Windows 95 and Windows 98 must be installed in a primary partition on the first hard disk.

**NOTE:** BootMagic can boot some installations of Windows 95/98 from a primary FAT partition on a secondary disk. For more information, click **See Also** on the Help toolbar.

The Windows partition may be a FAT32 partition only if you are installing Windows 95B (sometimes referred to as Windows 95 OSR2) or Windows 98.

During installation, Windows 95/98 replaces the master boot record (MBR), overwriting the BootMagic MBR. After

you install Windows 95/98, you can correct this problem, by running the BootMagic configuration program from the home partition (that is, the partition in which BootMagic is installed)

1 From the Windows taskbar, click Start ▶ Programs

- ▶ PowerQuest BootMagic
- ▶ BootMagic Configuration.
- Select BootMagic Enabled to "turn on" BootMagic.
- 3 Click Save/Exit.

The configuration program rewrites the BootMagic MBR.

## Tips

• If you are not in the home partition, boot using the BootMagic rescue diskette, then follow the instructions for running the BootMagic configuration program.

#### Windows NT

Windows NT can be installed in either a primary or logical partition on any hard disk; however, the NT boot partition (in other words, the partition containing the boot files NTLDR, NTDETECT.COM, and BOOT.INI) must lie completely within the first 2 GB of the first hard disk in a primary partition.

Windows NT 4.0 and earlier do not support FAT32, and therefore, cannot be installed on any FAT32 partition. Windows NT can be installed in three different configurations:

- You can install all the Windows NT files in a single NTFS or FAT primary partition. This configuration is most often used when NT is the first OS installed on a system.
- You can install most of the Windows NT files in a logical partition, but install the NT boot files within the first 2 GB of a visible, primary NTFS or FAT partition on the first disk. If you want to install Windows NT to its own partition, this is the suggested configuration.
- You can also install Windows NT so that the boot files are placed in one primary NTFS or FAT partition on the first disk, and the rest of the NT files are in another primary partition. Both partitions must be visible for NT to boot

If BootMagic does not automatically make the correct partitions visible, you can unhide the necessary partitions using the Visible Partitions tab in the BootMagic Menu Item Properties dialog box.

### **OS/2**

OS/2 can be installed in either a primary or logical partition on any hard disk; however, the boot files and system partition must lie completely within the first 2 GB of the hard disk. OS/2 data partitions may be installed elsewhere.

OS/2 must be installed on either a FAT or HPFS partition.

If you want to install OS/2 in its own partition, you should install it in a logical partition.

If OS/2 is installed to any partition other than a primary partition on the first disk, OS/2 requires Boot Manager to be present during installation. However, once OS/2 is installed, BootMagic detects the partition and Boot Manager can be removed.

The OS/2 hard disk drivers may not support disks over 4 GB. If an error message appears during installation, informing you that there is not enough free space on the disk or partition, you will need to download the OS/2 drivers for large disk support. You can download these drivers at <a href="http://ftp.software.ibm.com/ps/products/os2/os2ddpak/idedasd.exe">http://ftp.software.ibm.com/ps/products/os2/os2ddpak/idedasd.exe</a>.

## BeOS

BeOS can be installed on any disk and in any primary partition, except for the home partition (that is, the partition in which BootMagic is installed). BeOS partitions use the BeOS file system. To install BeOS, simply follow the normal installation procedures.

#### Linux

Linux can be installed on any disk and in any primary or logical partition, except for the home partition (that is, the partition in which BootMagic is installed). Linux partitions use the Linux Ext2 file system.

When installing Linux, do not install LILO in the master boot record (MBR); LILO will overwrite the BootMagic MBR. Instead, install LILO to the Linux partition.

Do not set up partitions with Linux FDISK; it may render partition tables unreadable to other OSs. Linux FDISK can be used, however, to change a partition type to Linux Ext2 or to swap partition types.

Do not set up partitions with Disk Druid as it may also render logical partition tables unreadable to some OSs and hard disk utilities. However, Disk Druid can still be used to change partition types and set partition mount points.

### **Boot Operating Systems from Secondary Disks**

BootMagic supports booting most OSs from second, third, or fourth disk and beyond. Some OSs, such as OS/2, Linux, and BeOS, are designed to boot from any disk. Others, such as Windows 95/98, Windows NT, and DOS, do not commonly support secondary disk booting. For more information about installation issues specific to an OS, click **See Also** on the Help toolbar.

If a specific OS does not support installation to a secondary disk, the OS can sometimes be installed on the first disk, then copied to the secondary disk with PartitionMagic, Drive Image, or other hard disk utility. Once copied, BootMagic detects the OS partition and boots it without problem. This method works with OSs such as Windows 95/98 and DOS.

Windows NT is the one exception. No NT configuration supports booting solely from a secondary disk. Even when the majority of NT files are located on a secondary disk, the NT boot code must still reside on the first disk.

You should be aware that BootMagic does not hide or unhide partitions on any disk other than the first. Because DOS, Windows 95/98, and OS/2 each require that they be the only visible, active, primary OS partition, only one primary partition-based OS may be installed on a secondary disk. Additional OSs on a secondary disk will not boot unless they can be installed to a logical partition or are manually hidden and unhidden at each boot attempt.

BootMagic recognizes partitions on secondary disks and can even boot an OS from these disks; however, you must consider the following restrictions:

• For DOS, Windows 95, and OS/2, all primary partitions on all previous disks must be hidden before booting, you should enable the option Advanced Partition Hiding in the BootMagic configuration program.

### Using BootMagic with Other Programs

Dynamic drive overlay (DDO) software is often used to configure large IDE hard disks in situations where the system BIOS limits disk capacity to 540 MB, 2.1 GB, or 4.2 GB. The DDO translates the disk into a configuration that the BIOS can understand, allowing access to the full disk space.

BootMagic can be used with most DDO software. However, because the DDO determines how the BIOS interprets your system disks and partitions, the DDO must be loaded before you install or run BootMagic. Otherwise, BootMagic will not get the correct information from your disk and may even overwrite the drive overlay code.

#### **Ontrack Disk Manager**

BootMagic can be used with Disk Manager versions 6.03 and later. However, the following limitations must be observed:

- Disk Manager must be installed using Ontrack Proprietary Format. Although Disk Manager can be installed with either Ontrack Proprietary Format or BIOS Standard Format, BootMagic is only compatible with the Ontrack format. BIOS Standard Format prevents the BootMagic loader from being installed and run at system boot up.
- Disk Manager cannot be installed on any disks other than the first. If Disk Manager is used on any other disks, you will not be able to install BootMagic.
- Disk Manager must be loaded before you install or run BootMagic. To load Disk Manager, boot your system
  from the hard disk (without a floppy boot diskette). If you need to boot from a floppy disk, wait until the
  following message appears: "Press the spacebar to boot from floppy." Press <Space>, then insert the boot
  floppy as instructed. When finished booting your system, install or run BootMagic as normal.

#### **MicroHouse EZ-Drive**

BootMagic is compatible with EZ-Drive versions 8.0 and later. If you have an older version of EZ-Drive, you must either upgrade to a newer version or remove EZ-Drive from your system.

Before removing EZ-Drive, make sure your BIOS fully supports your system hard disks. Also be sure to back up all information on the disk; once you remove EZ-Drive, all data on the disk will be lost.

EZ-Drive can be installed either with or without Floppy Boot Protection. Both installations are supported by BootMagic.

EZ-Drive must be loaded before you install or run BootMagic. To load EZ-Drive, boot your system to the hard disk (that is, without a floppy boot diskette). If you need to boot from a floppy disk, wait until the following message appears: "EZ-BIOS: Initializing... hold the Ctrl key down for status screen or boot from floppy." Press <Ctrl>, then insert the boot floppy as instructed. When finished booting your system, install or run BootMagic as normal.

## **Anti-Virus Software**

BootMagic is compatible with most anti-virus software (for example, Norton AntiVirus and McAfee VirusScan). However, because these programs scan the MBR (master boot record) for viruses, they may interpret BootMagic's modifications to the MBR as a potential attack. If this occurs, do not attempt to repair the MBR using the anti-virus software. You will overwrite BootMagic's customized MBR and completely disable the program. If necessary, most anti-virus programs let you manually disable MBR virus detection.

Some motherboards also contain virus protection software within the BIOS. This software can occasionally cause problems by preventing BootMagic from making changes to the MBR. If this occurs, disable the virus warning option in the CMOS setup of your system BIOS.

### **Frequently Asked Questions**

## I installed BootMagic, so why do I keep getting my old boot manager whenever I start my computer?

BootMagic cannot be used with boot management utilities other than Boot Manager. All other boot utilities must be disabled or uninstalled before you install BootMagic. After you install BootMagic and restart your system, if BootMagic is not the boot utility that first appears, disable the other utility and then run BootMagic's configuration program to re-enable BootMagic.

#### Why does BootMagic always boot to the operating system that I just installed?

Some OS installations overwrite the master boot record (MBR). If this occurs, BootMagic is disabled and your computer boots to the last operating system you installed. If you have access to the \BTMAGIC.PQ directory, run CONFIG.BAT under DOS or BMCFG32.EXE under Windows. Once in the configuration program, select **BootMagic Enabled**, then click **Save/Exit** to restore the BootMagic MBR.

If you do not have access to the \BTMAGIC.PQ directory, you can use the BootMagic rescue diskette to run the configuration program.

#### I installed a new operating system. Where is it?

BootMagic does not automatically incorporate a new OS into the BootMagic Menu; you must add it using the configuration program. When you finish installing the new operating system and reboot your system, the BootMagic Menu should appear. Boot an OS from which you can run the BootMagic configuration program. You may also use the BootMagic rescue diskette to access the configuration program. Once in the configuration program, add the newly installed OS to the menu list.

If the BootMagic Menu does not appear upon reboot, the new OS installation has probably overwritten the MBR. See the question "Why does BootMagic always boot to the operating system that I just installed?" above for more information.

For more information on adding an OS to the menu list, click See Also on the Help toolbar.

## Why does my data partition appear as an operating system in the Add OS list?

If you have a primary NTFS partition on the first disk, it appears in the BootMagic Add OS list as Windows NT. Depending on how you installed NT, this partition may or may not be bootable. If both the NT boot files and the NT system files are installed in this partition, the partition is bootable. If the partition only contains NT data files, it cannot be booted.

If you have a primary HPFS partition, it also appears in the BootMagic Add OS list, but as OS/2. Again, this partition may or may not be bootable. If OS/2 is installed in the partition, it can be booted. If the partition only contains data files, it cannot be booted.

Finally, primary FAT16 or FAT32 data partitions may appear as versions of DOS or Windows 95/98; however, because these data partitions contain no OS, they are not bootable.

Extra OS listings may appear confusing, but the problem is easily resolved. Run the BootMagic configuration program. Look through the listed OSs, using the disk and partition information in the BootMagic Menu Item Properties dialog to distinguish bootable OS partitions from non-bootable partitions. As you identify each OS, simply remove any unwanted or non-bootable entries from the menu.

For more information on distinguishing a bootable partition from a non-bootable partition, click **See Also** on the Help toolbar.

# Why is my operating system not in the BootMagic Add OS list?

BootMagic may not always detect all of the OSs that are installed. If your OS does not appear in the BootMagic Add OS list, select **Advanced** to display all the partitions on your system. Select the partition that contains the desired OS, and add it to the BootMagic Menu.

For more information on finding an OS that does not appear in the **BootMagic Add OS** list, click **See Also** on the Help toolbar.

#### Why does the DOS OS installation tell me DOS is already installed?

Some DOS installations look at all visible partitions on your system; if they find another partition with the DOS

system files installed, you may get this message. To install the new DOS OS, hide all other partitions that contain DOS system files, then install the new DOS OS.

My operating system used to boot, so why do I now get a "non-system disk" or similar error?

Some OSs, such as DOS and Windows NT, may stop booting if the partition crosses the 2.1 GB boundary. To resolve the problem, move or resize the partition to below 2.1 GB.

## After installation, why does the BootMagic Menu list more operating systems than I have?

After installation, BootMagic sorts through all your system's hard disks, looking at the partition tables and gathering information about each possible OS. While this method reliably detects most OSs, it may also detect some non-OS partitions. For example, if you have a primary NTFS data partition on the first disk, BootMagic detects it as Windows NT. Likewise, an HPFS data partition may be detected as OS/2 and a FAT16 or FAT32 data partition as MS-DOS or Windows 95/98.

After gathering all this information, BootMagic then adds every detected OS to the BootMagic Runtime Menu list. If you click **Save/Exit** at this point, all the listed OSs will appear in the BootMagic Menu.

Extra OS listings may appear confusing, but the problem is easily resolved. Run the BootMagic configuration program again. Look through the listed OSs, using the disk and partition information in the General tab of the BootMagic Menu Item Properties dialog box to distinguish bootable OS partitions from non-bootable partitions. As you identify each OS, remove any unwanted or non-bootable entries from the menu.

For more information on differentiating between OS partitions and non-bootable partitions, click **See Also** on the Help toolbar.

### **Recovering a Failed Operation System**

A working OS may suddenly stop booting if a disk crash, virus, or other error corrupts and destroys key system files. You can resolve this problem by restoring or repairing the damaged files.

Before attempting to recover any non-working OS, first boot to the failed OS using the BootMagic Menu. This ensures that BootMagic sets the corresponding partition active and makes all necessary partitions visible.

After booting using the BootMagic Menu, reboot your computer using the appropriate OS boot diskette. If an OS boot diskette is unavailable, a DOS boot diskette may sometimes be used to examine system files and detect potential problems.

Click the links below for information on basic recovery techniques for a specific operating system. If you have questions about other OSs, consult the OS manufacturer's documentation and support resources.

Do not use the BootMagic rescue diskette to restore system files.

{button ,JI(`',`H\_Recover\_DOS')} DOS

{button ,JI(`',`H\_Recover\_Windows\_95')} Windows 95/98/Me

{button ,JI(`',`H Recover Windows NT')} Windows NT 3.51/4.0

#### DOS

MS-DOS requires a boot record and the following three files for proper operation: IO.SYS, MSDOS.SYS, and COMMAND.COM. PC-DOS and other PC-type DOSs require a boot record and the following three files: IBMBIO.COM, IBMDOS.COM, and COMMAND.COM. Both MS-DOS and the PC-type DOSs may also need CONFIG.SYS and AUTOEXEC.BAT files. If present, these files may contain information required for DOS to boot properly. All DOS system files are usually found in the C:\ root directory.

CONFIG.SYS and AUTOEXEC.BAT are both text files, and can be edited directly. The boot record and remaining files can be restored from a diskette with an identical version of DOS. Boot from the diskette, then at the DOS prompt, copy the needed files from the diskette. If it is necessary to restore the boot record, type SYS C: at the DOS prompt (assuming C: is the DOS root directory).

When you finish examining and restoring the boot record and system files, remove the DOS boot diskette from your computer and reboot to the OS through BootMagic.

#### Windows 95/98

In addition to the boot record, Windows 95/98 needs five working files to get to a DOS/Windows prompt: CONFIG.SYS, AUTOEXEC.BAT, IO.SYS, COMMAND.COM, and MSDOS.SYS. These files are usually located in the C:\ root directory.

During the installation of Windows 95/98, users can create a start up diskette that will restore these system files. This diskette should be used if you need to recover Windows 95/98.

If a start up disk is unavailable, you can create a Windows 95/98 boot diskette. Once you have a boot diskette, the following information may help in recovering the needed system files.

Each of the five needed files should be examined to determine whether or not it is damaged. In general, the text file CONFIG.SYS should contain a shell statement pointing to the Windows 95/98 subdirectory. Likewise, the text file AUTOEXEC.BAT should contain a path statement, one portion of which points to the Windows 95/98 \ COMMAND subdirectory and not to the old \DOS directory. If needed, both of these files can be edited directly. Some valid Windows 95/98 configurations may have empty or non-existent CONFIG.SYS and AUTOEXEC.BAT files.

Some valid Windows 95/98 configurations may have empty or non-existent CONFIG.SYS and AUTOEXEC.BAT files. These files are not always necessary for Windows 95/98.

If the IO.SYS or COMMAND.COM file is corrupt, you can copy these files from the Windows 95/98 boot diskette. IO.SYS is a hidden system file; you must use the ATTRIB -H command to make this file visible before it can be copied.

If the wrong MSDOS.SYS file appears, be sure to search the entire disk for another instance of the file. If no valid copy is found, copy this file from the Windows 95/98 boot diskette. MSDOS.SYS is a hidden system file; you must use the ATTRIB -H command to make this file visible before it can be copied.

If you need to reload the boot record, but have a valid copy of MSDOS.SYS, you must first rename the MSDOS.SYS file in the Windows 95/98 root directory. Otherwise, the SYS command used to load the boot record will overwrite the MSDOS.SYS file with a useless copy.

Use the Windows 95/98 boot diskette to boot to the DOS/Windows prompt, then rename MSDOS.SYS (in this example, C:\ is assumed to contain the hard disk Windows 95/98 root directory).

```
A:\> C:

C:\> ATTRIB -H -S -R MSDOS.SYS

C:\> COPY MSDOS.SYS MSDOS.TMP
```

Now reload the boot record with the following commands,

```
C:\> A:
A:\> SYS C:
```

Using the SYS command may create an entirely new Windows 95/98 OS, leaving your old Windows OS still unusable.

Finally, restore the correct MSDOS.SYS file with the following commands,

```
A:\> C:
C:\> ATTRIB -H -S -R MSDOS.SYS
C:\> COPY MSDOS.TMP MSDOS.SYS
```

When you finish examining and restoring the boot record and system files, remove the Windows 95/98 boot diskette from your computer and reboot to the OS through BootMagic.

#### Windows NT 3.51/4.0

Windows NT requires three boot files: NTLDR, NTDETECT.COM, and BOOT.INI. Additional files, such as CONFIG.SYS, AUTOEXEC.BAT, IO.SYS, COMMAND.COM, and MSDOS.SYS, may also be needed if you had MS-DOS or another OS installed before you installed NT.

During the installation of Windows NT, users can create an NT repair diskette that will restore these system files. This disk simplifies the correction of most basic NT problems.

For Windows NT 3.51, boot directly from the repair diskette. Follow the directions to restore your system files. If you did not make a repair disk, the NT installation disk can be used instead. When you boot from the installation diskette, you are prompted to either install NT or perform a repair. Select the repair option, then follow the onscreen directions.

For Windows NT 4.0, use the three NT boot diskettes made during installation to boot into the NT Setup Program. In the Setup screen, choose the option to repair the current NT installation. Insert the NT emergency repair diskette when prompted, then follow the on-screen directions to restore your system files.

When you finish all necessary repairs, remove the Windows NT diskette from your computer and reboot to the OS through BootMagic.

### **Error Messages and Solutions**

BootMagic error messages and possible solutions are listed below by number. The messages are also grouped into number ranges using the following categories:

{button ,JI(`',`H\_Error\_General')} General (8000-8049)

{button ,JI(`',`H\_Error\_Menu\_Item\_and\_Configuration')} Menu Item and Configuration (8050-8099)

{button ,JI(`',`H\_Error\_Boot')} Boot (8100-8149)

{button ,JI(`',`H\_Error\_File\_and\_Disk\_IO')} File and Disk I/O (8150-8199)

{button ,JI(`',`H\_Error\_Parser\_Read\_Write')} Parser\_Read/Write and General (8200-8249)

{button ,JI(`',`H\_Error\_Partition\_Table')} Partition Table and Boot Record (8250-8274)

{button ,JI(`',`H\_Error\_BootMagic\_Configuration')} BootMagic Configuration (9000-9499)

If you encounter an error that is not discussed in this topic, visit PowerQuest's website at <a href="http://support.powerquest.com">http://support.powerquest.com</a> for a complete listing.

## General Errors (8000-8049)

### # 8001 Error allocating memory: Need < number > bytes more memory

This error can occur when the number of OS items in the BootMagic Menu requires more memory than is available. To solve this problem, simply run the configuration program, and delete one or more OS items from the menu list.

## Menu Item & Configuration Errors (8050-8099)

#### #8050 No default menu item available to boot

This error usually occurs when you have set the Startup Delay to None or Timed, but have not selected a default OS. To resolve the problem, run the BootMagic configuration program, and then select a valid OS item as the system default.

## #8051 Error finding operating system for menu item

BootMagic cannot boot the OS for a listed menu item, a situation that usually means the OS has been deleted from the partition. After displaying this error message, you should run the BootMagic configuration program, and the menu item will be automatically removed from the list. Save the change and exit the configuration program to return to the BootMagic Menu.

Occasionally, however, this error message appears even when a valid OS is present. If this is the case, simply run the configuration program again and re-add the OS to the menu.

## #8054 No menu item entries found in configuration file

The configuration file is either empty or corrupted. Run the BootMagic configuration program and, after deleting any listed items, re-add all desired OSs to the menu.

# #8055 The master boot record file <filename> is too large

BootMagic operates by replacing your system's MBR (master boot record) with a version configured to load and run the BootMagic program at startup. This error message appears if the file containing the boot code for the BootMagic MBR loader is too large. Reinstall BootMagic so that the file is rewritten with the proper contents.

### **Boot Errors (8100-8149)**

#### #8109 Unable to find partition for menu item: < menu item>

BootMagic cannot find the partition for a listed menu item, a situation that usually means the partition has been deleted. After displaying this error message, BootMagic automatically runs the configuration program and removes the faulty menu item for you. Save the change and exit the configuration program to return to the BootMagic Menu.

Occasionally, however, this error message appears even when a valid partition and OS are present. If this is

the case, simply run the configuration program again and re-add the OS to the menu.

#### File and Disk I/O Errors (8150-8199)

#### #8150 Open file failed on file

BootMagic cannot open a needed file. Attempt to fix the problem by simply launching the configuration program, then clicking **Save/Exit**. If that proves unsuccessful, re-install BootMagic.

### #8151 Create file failed on file

BootMagic cannot create a necessary file. This error may mean you are out of disk space; create additional space either by deleting unnecessary files or by making the partition larger.

#### #8152 Read file failed on file

BootMagic cannot read a necessary file. Attempt to fix the problem by launching the configuration program, then clicking **Save/Exit**. If that proves unsuccessful, re-install BootMagic.

#### #8153 Write file failed on file

BootMagic cannot write needed information to a file. This error may mean you are out of disk space; create additional space either by deleting unnecessary files or by making the partition larger.

#### #8155 Error opening drive

BootMagic cannot open the necessary disk, and therefore cannot launch the configuration program. If you are running Windows NT or Windows 95/98, close all other programs and disk utilities, then run the configuration program again.

## #8156 Error getting drive geometry

BootMagic cannot detect the needed disk geometry, and therefore cannot launch the configuration program. If you are running Windows NT or Windows 95/98, close all other programs and disk utilities, then run the configuration program again.

# #8162 EZ-Drive has been installed on this disk, but is not loaded. Load EZ-Drive and then rerun BootMagic install.

If EZ-Drive is installed on your hard disk, it must be loaded before you can install BootMagic. Otherwise, BootMagic could potentially overwrite the disk overlay code. To solve this problem, reboot your system to the hard disk (without a floppy boot diskette) so that EZ-Drive is loaded properly. If you need to boot from a floppy disk, wait until the following message appears: "EZ-BIOS: Initializing... hold the Ctrl key down for status screen or boot from floppy." Press <Ctrl>, then insert the boot floppy as instructed. When finished booting your system, install BootMagic as normal.

# #8163 Disk Manager has been installed on this disk, but is not loaded. Load Disk Manager and then rerun BootMagic install.

If Disk Manager is installed on your hard disk, it must be loaded before you can install BootMagic. Otherwise, BootMagic could potentially overwrite the disk overlay code. To solve this problem, reboot your system to the hard disk (without a floppy boot diskette) so that Disk Manager is loaded properly. If you need to boot from a floppy disk, wait until the following message appears: "Press the spacebar to boot from floppy." Press <Space>, then insert the boot floppy as instructed. When finished booting your system, install BootMagic as normal.

## #8164 The configuration of Disk Manager on this drive prevents BootMagic installation.

Disk Manager is installed on the disk using BIOS standard format. This format is incompatible with BootMagic.

### #8166 Error writing sector number.

This error may be caused by any of the following:

• If this error message is preceded by a black box and/or several beeps, you need to disable the virus warning in the CMOS setup of your system's BIOS Features menu. If the virus warning is disabled and this error still occurs, your hard disk may be defective. Use a disk-checking utility (for example, SCANDISK, or CHKDSK) to

detect any problems.

- Installing BootMagic while in Windows sometimes causes this error. If this is the case, exit to DOS and install BootMagic from there.
- Launching the DOS configuration program while in Windows sometimes causes this error. If this is the case, exit to DOS and run the configuration program from there.
- Anti-virus software or hard disk overlays may cause this error. If the problem is an overlay, BootMagic is probably incompatible with the disk translation software that created the overlay. For more information on software interactions, click **See Also** on the Help toolbar.

### #8168 Error loading file PQVXD.VXD

PQVXD.VXD is needed by Windows 95 to access the hard disk. The Windows 95 configuration was either unable to find this file, or the file is corrupted. Re-install BootMagic to replace the file.

#### Parser Read/Write and General Errors (8200-8249)

For all errors in this number range: run the configuration program, then re-add any lost menu items to the BootMagic Menu. Save your changes and exit.

#### Partition Table and Boot Record Errors (8250-8274)

## #8255 Error writing master boot record

This error may be caused by any of the following:

- If a black box and/or several beeps precede this error message, you need to disable the virus warning in the CMOS setup of your system's BIOS Features menu. If the virus warning is disabled and this error still occurs, your hard disk may be defective. Use a disk-checking utility (for example, SCANDISK, or CHKDSK) to detect any problems.
- Installing BootMagic while in Windows sometimes causes this error. If this is the case, exit to DOS and install BootMagic from there.
- Launching the DOS configuration program while in Windows sometimes causes this error. If this is the case, exit to DOS and run the configuration program from there.
- Anti-virus software or hard disk overlays may cause this error. If the problem is an overlay, BootMagic is probably incompatible with the disk translation software that created the overlay. For more information on software interactions, click **See Also** on the Help toolbar.

#### #8256 Unable to write BootMagic loader to MBR, not enough free sectors.

BootMagic operates by replacing your system's master boot record (MBR) with a version configured to load and run the BootMagic program at startup. This error message appears if there are not enough free sectors at the beginning of the hard disk for the BootMagic loader to be installed. If the hard disk was previously configured with a disk overlay that you are no longer using, some portion of that overlay may still be present. Use the overlay program's setup software to uninstall the overlay completely, and then try again to install BootMagic. If this does not work, or if a disk overlay program was never used, contact PowerQuest's technical support department. For more information on contacting technical support, click **See Also** on the Help toolbar.

## **BootMagic Configuration Errors (9000-9499)**

# #9002 Unable to find operating system for the menu item: <menu item>. This menu item will be removed.

BootMagic cannot find the OS for a listed menu item, a situation that usually means the OS has been deleted. After displaying this error message, BootMagic automatically removes the faulty OS item from the menu list. Occasionally, however, this error message appears even when a valid OS is present. If this is the case, simply re-add the OS to the menu.

# #9004 Invalid icon file for menu item: < menu item>

The file selected is not a valid icon file. Choose a new icon file for the menu item.

# Using the WRPROG.EXE Utility

WRPROG.EXE is a DOS utility that you can use to backup and restore the first track (first head) of a hard disk. This is useful when there is a need to remove information from the first head, or if you just want to make a backup. WRPROG is the utility that BootMagic uses to install and uninstall its loader program.

## **Syntax**

WRPROG [switches] filename

Switch	Description	
es		
/bak	Back up all of the sectors in the first head to the file specified by filename.	
/rst	Restore all of the sectors in filename to the first head. This will overwrite existing	
	information. Use this switch with caution; it may cause all partitions on the disk to become inaccessible.	

If you use WRPROG without a switch, the program will restore the first 446 bytes of filename to the MBR (master boot record); the partition table will not be overwritten. This is effective for removing or replacing the BootMagic loader.

# To create a diagnostic report

You can run PARTINFO to generate a diagnostic report showing the contents of your hard disk partition. This information is helpful in fixing various partitioning problems and is used by PowerQuest technical support to resolve problems you encounter while using BootMagic.

You run PARTINFO.EXE from the \BTMAGIC.PQ directory after you install BootMagic.

- **1** Boot the computer to DOS.
- **2** Run the PARTINFO option you want.

То	Туре
Display	PARTINFO, then press
partitio	<enter>.</enter>
n	
informa	
tion on	
your	
screen	
Send a	PARTINFO >LPT1, then
report	press <enter>.</enter>
directly	
to your	
printer	
Save	PARTINFO >A:\
the	PARTINFO.TXT, then
report	press <enter>.</enter>
as a	
text file	
on a	
floppy	
disk	

### **PowerQuest Technical Support**

Before contacting PowerQuest, please try to resolve problems you encounter by using the online Help, the user guide, the README file, and PowerQuest's corporate web site.

#### **Tips**

- Your problem may be resolved by applying the most recent patch or upgrade of the software. You can download patches and upgrades from <a href="http://www.powerguest.com/updates">http://www.powerguest.com/updates</a>.
- PowerQuest technical support engineers may request information from the PARTINFO utility program to help you resolve problems with PowerQuest software. The PartitionInfo report is always required for errors 100-199, 255, 986, and drive detection errors of any kind.
- Your product serial number is required to obtain technical support.
- If you received a demo or trial version of the PowerQuest software, you are not entitled to complimentary technical support.

#### **Term of Technical Support**

Technical support is available to all registered users throughout the life of the product, which began when PowerQuest released the software to manufacturing and ends six months after the release of the next version of the software or when PowerQuest discontinues its development.

Upon registration, PowerQuest provides 45 days of complimentary technical support from the day of your first call.

## **Corporate Web Site**

The Technical support web site, <a href="http://support.powerquest.com">http://support.powerquest.com</a>, includes an overview of support options, an e-mail support request form, a list of error messages and information to resolve problems you encounter, and answers to frequently asked questions about the product.

## E-mail

Lang uage	E-mail address (for specific technical problems)
Dutc h	eurots@powerquest.com
Engli	help@powerquest.com
sh	eurots@powerquest.com
Frenc h	france@powerquest.com
Germ	germany@powerquest.c
an	<u>om</u>
Italia n	italian@powerquest.com
Portu	latina@powerquest.com
gues e	
Span	spanish@powerquest.co
ish	<u>m</u>

To obtain e-mail technical support for specific technical questions, you can fill out the form at <a href="http://support.powerquest.com">http://support.powerquest.com</a> (available in English only). If you send the information from PARTINFO with your e-mail message, a PowerQuest technician will be able to assist you more easily. Refer to the product user guide for information about PARTINFO.

#### E-mail on Demand

PowerQuest maintains an e-mail on demand system to resolve common problems. You can view a list of available documents at <a href="http://support.powerquest.com">http://support.powerquest.com</a>. To request one of the documents, send an e-mail message to <a href="mailto:support@powerquest.com">support@powerquest.com</a> with the index number of the document in the subject of the message. You can only request one document per e-mail message. E-mail on demand documents are available in English only.

#### Fax

Loc	Number	
atio		
n		
USA	+1 (801) 437- 4218	
Eur ope	+31 (0)20 581 9270	

Fax a description of your problem to the technical support fax number. This service is available in the United States, Canada, and Europe 24 hours, 7 days. PowerQuest technicians try to respond to all fax requests within 24 hours.

#### Telephone

Lang uage	Location	Number
Dutc h	Netherland s	+31 (0)20 581 3906
Engli sh	Netherland s	+31 (0)20 581 3907
Engli sh	UK	+44 (0)17 1341 5517
Engli sh	USA	+1 (801) 226-6834
Frenc h	France	+33 (0)1 69 32 49 30
Germ an	Germany	+49 (0)069 66 568 516
Italia n	Italy	+39 (0)02 45 28 1312
Portu gues e	USA	+1 (801) 226-6834
Spani sh	Spain	+34 (0)91 622 3146
Spani sh	USA	+1 (801) 226-6834

The USA call center is open Monday through Friday, 7:00 a.m. to 6:00 p.m., MST/MDT. Our European call centers are open Monday through Friday from 9:00 to 18:00, CET.

If you have the information from PARTINFO ready when you call, a PowerQuest technician will be able to assist you more easily. Refer to the product user guide for information about PARTINFO.

#### **Postal Service Mail**

USA	Europe
PowerQuest	PowerQuest
Corporation	Customer Service
P.O. Box 1911	P.O. Box 58287
Orem, Utah 84059-1911	1040 HG
U.S.A.	Amsterdam
	The Netherlands

Please include the information from PARTINFO with a description of your problem. Also include a return address, a daytime phone number, or other relevant contact information.

{ewl RoboEx32.dll, WinHelp2000, }