

PartitionMagic 8

Manage your hard drive efficiently: Mary Branscombe guides you through the easy way to partition

COMPLETE GUIDE

Compatible with Windows:

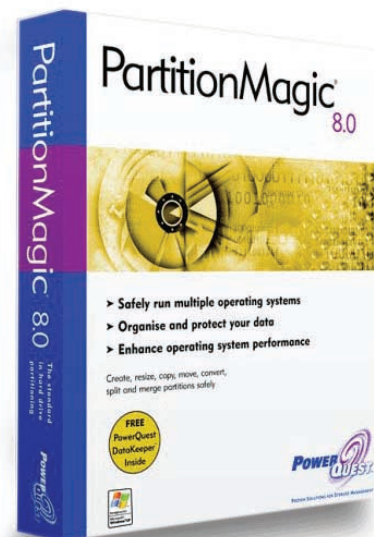


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→ AT A GLANCE

Working with PartitionMagic 8

The Windows XP-style makeover makes it easy to find tools in the latest version of PartitionMagic

XP LOOK

Like the task pane down the side, the toolbar of common tasks has a Windows XP look and feel

TOP TASKS

Choose any of the tasks to open a wizard that takes you through the different options

DIRECT ACTION

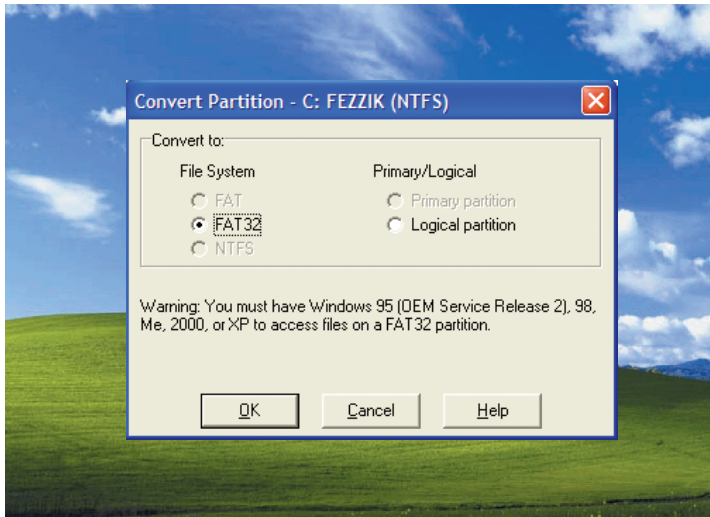
The commands that aren't greyed out are the ones you can perform on the partition you've selected from the list on the right

PENDING

None of the changes you make to your system take place until you click the Apply button

The screenshot displays the PartitionMagic 8.0 interface. On the left, a task pane lists various actions like 'Create a new partition', 'Resize a partition', and 'Partition Operations'. The main window shows 'Disk 1 - 57255 MB' with a list of partitions: 'New Volume (Z:)', 'FEZZIK (C:)', '(*)', and 'BACKUP (F:)'. A table below lists partition details including Type, Size MB, Used MB, Unused MB, Status, and Pri/Log. An 'Install Another Operating System' wizard is open, providing instructions for installing a new OS. At the bottom, a legend identifies file systems like FAT, NTFS, and Linux, and a status bar indicates '3 operations pending'.

Partition	Type	Size MB	Used MB	Unused MB	Status	Pri/Log
New Volume (Z:)	NTFS	7.8	3.8	4.1	None	Primary
FEZZIK (C:)	NTFS	51,222.8	32,945.9	18,276.9	Active	Primary
(*)	Extended	6,024.4	6,024.4	0.0	None	Primary
BACKUP (F:)	NTFS	6,024.3	32.3	5,992.1	None	Logical



You can change a FAT32 partition to NTFS – or take an NTFS partition back to FAT32 if you need to access the files in an older version of Windows

Hard drives are getting larger and cheaper by the week. A 20Gb drive now sounds tiny and it's hardly worth buying a 60Gb drive when 120Gb costs so little extra. However, the more content you have on your PC, the more complicated it gets to manage, and the larger your hard drive the more inefficient it becomes because the cluster size goes up, which means that the smallest files take up more space than they need to.

There's little point in dividing up a hard drive just to keep things neat because you can do that perfectly well with folders. You don't gain a performance advantage from having multiple partitions on the same physical drive because there's still only one path to get the data from. However, having your data in a separate partition with its own drive letter makes it much easier to back up. Furthermore, if you run into serious problems with Windows and you need

to reinstall it, or you just decide to upgrade, you can safely reformat the Windows partition and do a clean installation so you know there are no old and possibly incompatible files lurking on your system.

If you want to run more than one OS then you need each of them in a separate partition, even if you can use

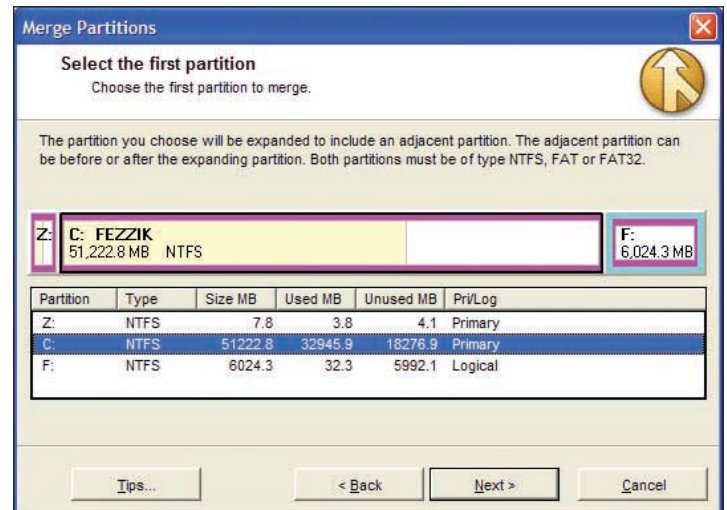
converting partitions from one format to another to get the setup you want. Or you can choose a task like creating a back-up partition, installing a new OS or redistributing the free space on your hard drive between different partitions to get a wizard that takes you through the different steps involved and queues them up in order.

HAVING YOUR DATA IN A SEPARATE PARTITION MAKES IT EASIER TO BACK UP

the same filing system for each OS. Windows XP has a limited boot manager that makes it possible to keep an older version of Windows on your PC, but if you want to do anything complicated – or you want to run Linux – you'll need a boot manager, too.

PartitionMagic 8 has all the tools you need to create and manage partitions. If you know what you're doing you can choose options such as moving, resizing, splitting and

One useful task merges two adjacent partitions (as long as they're the same format). The first partition you pick gets all the disk space and the contents of the second partition show up as a folder inside it. If one partition is much smaller than the other then you'll need to resize the clusters first: you'll find the command under Partition -> Advanced. It's also handy if you're tidying up a partition that wasn't created by a tool which didn't give you the choice of cluster size.



Pick the partition you want to keep when you merge two partitions into one

BAR CHART

It's always easier to see how much space partitions take up and how much free disk space you've got from the disk map, which also shows the 2Gb boot boundary

IN DETAIL

The main window shows the details of the partitions you've created, including ones that will be created by pending tasks

STEP BY STEP

With any complex tasks you get a wizard to take you through what you need to do

COLOUR CODED

See at a glance what formats you're using for each partition

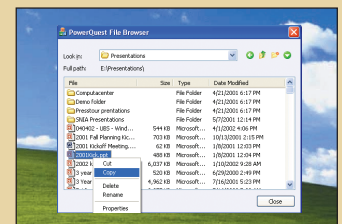
→ MAKE YOUR MARK

Browsing your files

Access files on another partition without rebooting

Normally, you can only share files between Operating Systems if all those OSes can work with the filing system that you've chosen for a partition. This means if you want to share files between Windows 98, Linux and Windows XP you need to pick the lowest common denominator – an inefficient FAT partition. The File Browser in PartitionMagic

enables you to browse, copy or move files from one partition to another even if it's in a filing system the OS you're using couldn't normally read. So you can access files inside a Linux or NTFS partition from inside Windows 98. The browser is simple – just a list of files in the directory – and you can right-click to work with them.



Right-click files in a foreign partition and you can move, copy, delete or rename them

Managing multiple OSes

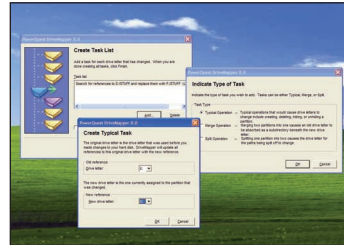
Boot tools make it easier to run more than one Operating System

Running more than one Operating System without experiencing problems means putting each one in its own partition and using a boot manager to choose which one to start each time you turn on your PC. Use *PartitionMagic* to create and manage the partitions you need then install *BootMagic* from the *PartitionMagic* CD to control booting.

You're provided with Windows and DOS versions to work with but you can only install *BootMagic* on to a FAT or FAT32 partition. This isn't a problem because if you only want to run Operating Systems like Windows XP and Windows NT that prefer NTFS partitions then you can almost always use the built-in Windows boot menu.

NTFS partitioning

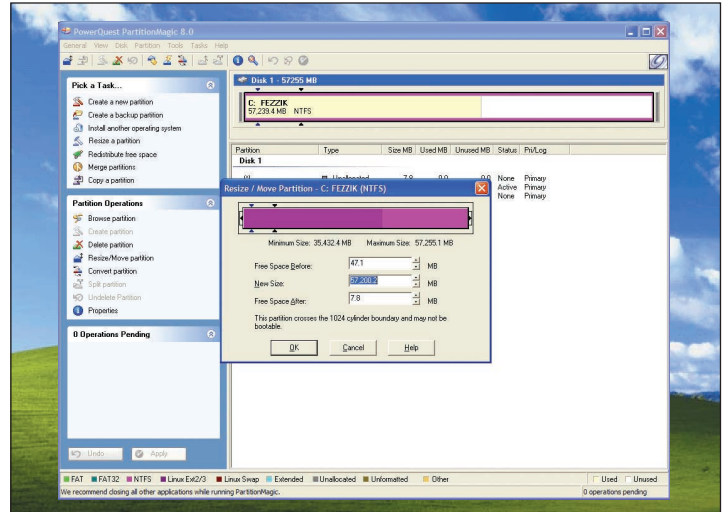
If you don't have a FAT or FAT32 partition ready to install your other OS into, run *PartitionMagic* and right-click the first primary NTFS partition to choose *Resize/Move*. In the *Free Space Before* field type 50. To create the new partition after the NTFS partition put the size in the *Free Size After* field, but remember that it has to be at least 32Mb and it has to start below the



If creating a new partition changes existing drive letters – like moving your CD drive from E: to G: – use the DriveMapper tool to change shortcuts and INI files so your applications still work

8Gb boundary of the hard drive so you can boot from it.

That gives you the space you need in the drive map, so right-click it and choose *Create*. Pick *Primary Partition* from the *Create As* drop-down. Now you can install *BootMagic* into that partition and then make sure it doesn't hide the partition it's in. Choose *Options -> Advanced Partition Hiding* and make sure you're turning the tick on rather than off. This also enables you to boot from an OS on a second hard drive. Check in the *Runtime Menu* group box, make sure that your current version of Windows is the one selected in the list and click



Make space to install BootMagic into – it needs to be a FAT partition

Properties. On the *Visible Partitions* tab tick *Override Default Selection* and then tick the box for the FAT partition where you've installed *BootMagic*. You'll need to reboot your PC again and then you can use *BootMagic* to select between all your OSes.

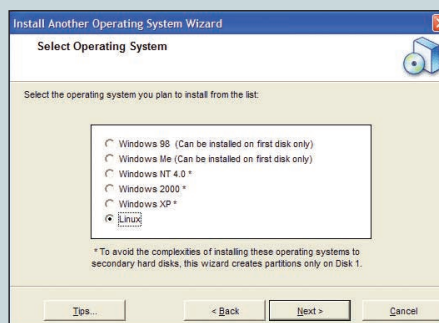
Use the *Install Another Operating System* wizard to create the partitions for extra OSes that you want to add to your PC. You don't need to worry about making them the right size or

where on the disk the partition needs to go to be inside the boot code boundary. You'll still need to install the OS into the new partition when you're done, and you'll need to tell *BootMagic* about it after that by clicking the *Add* button. Tick *Advanced* if you want to see all your partitions including ones that *BootMagic* won't expect to contain an OS, like Linux on a logical rather than a primary partition.

→STEP-BY-STEP GUIDE

Make a partition for a new OS

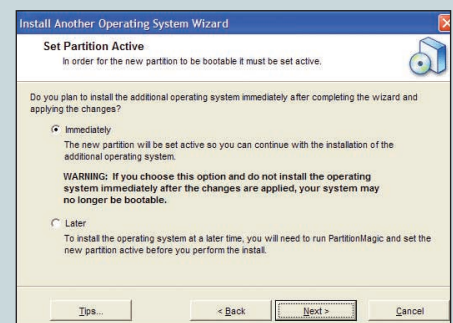
The wizard takes the hard work out of running more than one OS



01 Click the 'Install Another Operating System' Wizard and pick which OS to install on the new partition. Linux is the only OS that you can install on to a second drive with the wizard. If you want to put parts of Windows NT, 2000 or XP on a second drive you'll have to make the partition by hand.



02 After you pick where on the hard drive you want to place the new partition you can choose how large to make it and what filing system to use. If you're not sure it's safe to use the default settings, note that *PartitionMagic* won't permit you choose options that won't work for that OS

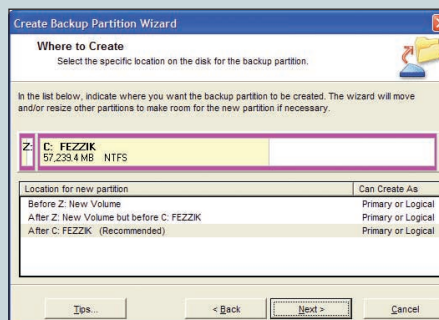


03 Choose whether you want to boot straight into the new partition to install the new operating system. If you have *BootMagic* installed it may still boot you into the old Operating System so you can either disable it before you click *Apply* or use *Edit -> Add -> Advanced* to add the new partition.

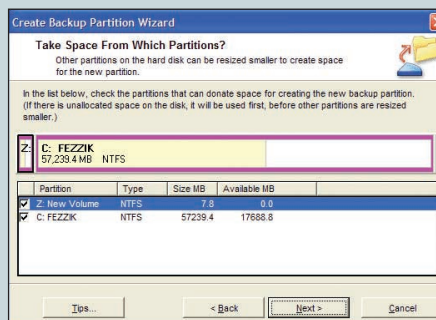
→STEP-BY-STEP GUIDE

Creating a back-up partition

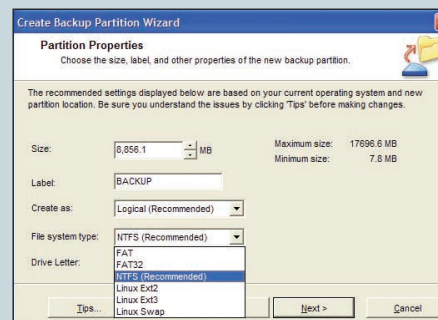
Make a separate partition for simple backups



01 Choose where on your hard drive you want to put the new partition. It's usually best to place it after your main system partition, but you can pick a space before or in between other partitions and they'll be resized and moved automatically



02 Unless there's free space on your hard drive already you'll need to make other partitions smaller to fit in the new backup drive. Select which partitions you want to reduce to give you the disk space.



03 PartitionMagic suggests what it thinks are the best settings for the data partition, but you can choose the size, the format for the filing system and the drive letter yourself. If you want a back-up partition you can use from Windows XP and Windows 98, you can set it to FAT32 instead of NTFS.

Keep your data safe

Back up your files by hand or automatically with DataKeeper

Even large backups don't take a long time if you're saving to a fast hard drive rather than a slow CD or tape drive, so configuring part of your hard drive as a special back-up partition is a sensible idea. If you have the option, it's better to put the partition on a separate physical hard drive, as losing files on your main hard drive might affect the back-up partition, too.

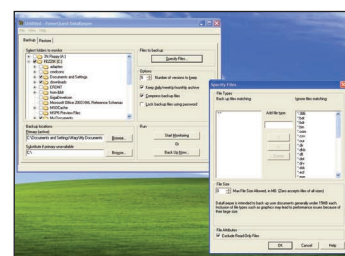
PartitionMagic doesn't include back-up tools, although the Create a

Back-up Partition wizard is a handy way to get a data partition ready for backups. The CD also includes *PowerQuest DataKeeper* (which you need to install separately). This isn't a standard back-up tool for scheduling backups: instead, it monitors your hard drive for any changes to your files and makes a backup of each changed file.

Before you can use *DataKeeper* you have to instruct it where you want to save the back-up copies of your files.

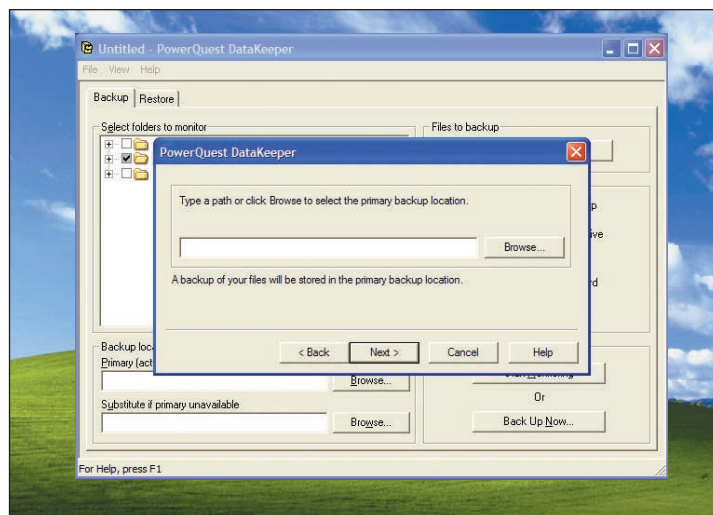
This can be a folder on your hard drive, a drive on your network or a removable drive. If you pick a network or removable drive that might not always be connected to your PC, you also have to choose a substitute location for backups if the primary location isn't available (handy on a notebook). As the files get copied across to the main area later, you don't need as much free space in the substitute location.

You can choose how many versions of each file to keep (the default is five): tick Keep daily/weekly/month archive if you want daily, weekly and monthly versions as well as the most recent



Choose either the files types you want to back up, the file types you're not interested in, or a mix of both

choose whether you want to back up all the files that match the options or just files created or modified since the last backup, or since a specific date.



Choose the primary and back-up drives to save back-up copies to

DATAKEEPER MONITORS YOUR HARD DRIVE FOR ANY CHANGES TO YOUR FILES

versions. If you do that, remember to tick Compress backup to keep the file size down.

Pick the folders you want to watch from the tree and then click Specify Files and either select just a few file types to back up or include everything that's not a program or system file. Click Start Monitoring to catch new changes or select Back Up Now and

If you want an exact copy of your hard drive – to use in a second PC or to give you a system backup before you try something you might not be able to recover from if it goes wrong – use the Copy Partition wizard. You get a new partition that's the same size, uses the same file type and contains a copy of the data from the original partition.

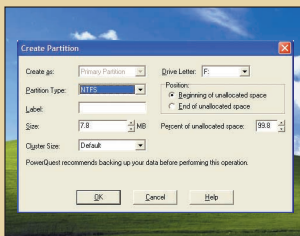
→ QUICK TIPS

PARTITION
MAGIC
SHORTCUTS

You can do things the easy way, or save some time when you know what you're doing

The *PartitionMagic* wizards are useful, but it's faster to use the commands on the Partition menu or to click the Partition Operations on the Task bar.

If you want to create several back-up sets to monitor different folders with *DataKeeper*, when you're



Get all the options in a single dialog by picking commands from the Partition menu rather than the task pane

working on multiple projects, you can save them as .DKS files and create a shortcut to run each of them. Use the -C flag in the shortcut to start *DataKeeper* with a back-up file and start monitoring your PC for changes. Use the -R flag to start *DataKeeper* with a named file, take a backup of matching files and then close the program.

If you nearly always boot into the same OS, you don't have to wait so long for *BootMagic* to do its thing. You can choose the OS you use the most, click Set as Default and then set the startup delay to just a few seconds. Alternatively, you can use the *PQBoot* tool instead of *BootMagic*. Pick the partition you want to boot from: when you restart you'll boot from that partition automatically and *PQBoot* will hide the other primary partitions.

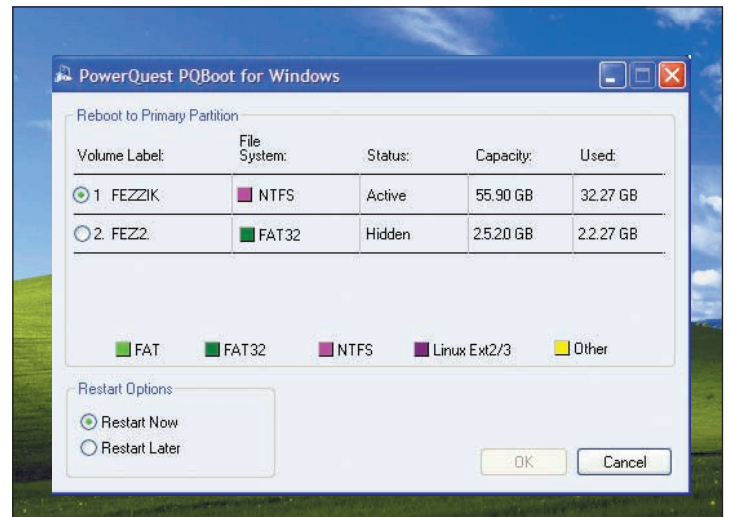
What's new in PartitionMagic 8?

Bigger disks, more tools – and fewer reboots

This isn't the first version of *PartitionMagic* that works with Windows XP, but it's the first version that looks like it, with a toolbar of common tasks across the top and a task pane with wizards and more common tasks down the side. It also comes with more tools: the *DataKeeper* back-up software for copying document files automatically every time you make changes to them, and the *PQBoot* tool that enables you to pick the OS to boot into next time you restart your PC without having to run *BootMagic* and pick the OS you want each time.

Also new is the File Browser, which means you don't even need to boot into another partition to use the files there. You can copy, rename or delete them, even if the partition is hidden. This is ideal if you're running Windows 98 and you want to get at files in a Linux or Windows XP partition.

PartitionMagic 8 catches up with newer technology. You can work with USB2 and FireWire external hard



Pick the next Operating System to use before you reboot Windows

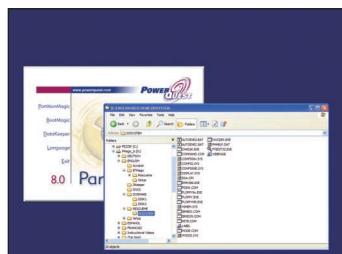
drives, and with partitions up to 160Gb: this makes it possible to divide a 480Gb disk into a sensible number of drive letters. For Linux you can now use the EXT3 format as well as EXT2 and if you want to make an NTFS larger you can do it without

rebooting your PC (even if it's the system partition). You can also resize NTFS clusters from 512 bytes to 4K: very few files are less than 4K in size these days and the larger clusters actually stop your hard drive getting fragmented as fast.

Running PartitionMagic in an emergency

Make a set of rescue disks so you can run PartitionMagic if things go wrong

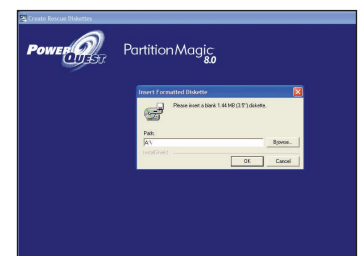
If you can boot from CD, you can run DOS versions of *PartitionMagic* and *BootMagic*. If not, use the Create Rescue Diskettes tool to make rescue floppy disks that you can boot from; you'll need two blank floppies. You can make the rescue disks in DOS from the CD, if you need to: open the English\DOSMAKE folder on the



You can boot from the PartitionMagic CD, or boot from the rescue disks and copy or run files from the CD

PartitionMagic CD in a command window and type MAKEDISK A:.

You'll need either the CD or the floppy disks if your PC doesn't have a version of Windows on yet (or it has a really old version that can't run *PartitionMagic*). You can also use them if you're trying to make changes to the partition that *PartitionMagic* is installed on, or if you've hidden the partition where *PartitionMagic* is installed, which means that you can't run *PartitionMagic* to unhide the partition. If anything goes wrong, such as you move a partition past the 8Gb or cylinder limit so you can't boot from it, or you convert a Windows 98 partition to NTFS and you need to convert it back to FAT, you can do that from the DOS *PartitionMagic*. About the only thing you can't do is a split or securely erase a partition. The interface



Making rescue disks is simple – if you still have two floppy disks in the house

is a lot simpler, too, and you don't get the wizards so save it for emergencies.

To make sure that other people can't run *PartitionMagic* unless you want them to, use General, Set Password. You can type in a hint but remember to make it cryptic enough that other people can't guess the password, but clear enough that you remember it yourself. ■