WINDOWS

Adding Files, Folders, and Programs to the Start Menu

The congenial Windows allows several ways to add files, folders, and programs to the Start menu, but here's one of the easiest:

1. **Double-click on the My Computer icon and find the icon for your file, folder, or program.**
2. **Point at the desired icon and, while holding down the mouse button, point at the Start button.**
3. **Let go of the mouse button.**

That's all there is to it. Click on the Start button, and you see your newly added file, folder, or program at the top of the menu.

Putting the Control Panel on the Start Menu

To open the Windows XP Control Panel the *right* way, it should be configured as a pop-up menu on the Start menu. The default Windows XP category view is about as convenient as a car wash in a monsoon: You *can* use it, but why? A true PC power user will jettison the default Control Panel in a heartbeat.

Follow these steps to configure the Control Panel as a Start menu pop-up:

1. Right-click the Start button and then choose Properties from the menu that appears.

2. In the Properties dialog box that appears, click the Customize button and then click the Advanced tab.

3. In the Start Menu Items list, find the Control Panel section and then select the Display as a Menu radio button.

4. Click OK to exit the Advanced settings and then click OK again to save the change to the Start menu.

Voila! Now click Start, move your mouse pointer over the Control Panel menu item, and revel in all that pop-up goodness! Now you can access any of the Control Panel dialog boxes with just two mouse clicks.

You'll note that each Control Panel dialog box sports two spiffy buttons: Apply and OK. These actually do the same thing — any changes that you've made get saved — but here are two important differences:

- **OK:** When you click OK, the dialog box closes, and you can make no more changes to that dialog box. Because many Control Panel dialog boxes have multiple panels (each of which might have a setting that you want to change), it makes sense to click Apply if you need to hang around.

- **Apply:** When you click Apply, Windows XP makes the setting change immediately. Usually, a setting change won't do anything obvious right off the bat, but if you're working in the Display Control Panel dialog box, you'll usually be able to see what changed (like your background or your screen resolution). If you don't like the effect that you've just wrought, you can easily choose another setting without the hassle of opening the dialog box again.

The first stop on the Control Panel tour is the Date and Time Properties dialog box. Check out its first tab, Date & Time.

Settings on this tab include

- **The month and year boxes:** Click the month drop-down list box to choose the current month. Then use the up- and down-arrow buttons to set the year, or you can just click directly in the year box and type the year.

- **The calendar display:** To select the current day, click it in the calendar display.

- **The Time clock:** You can either click the hours:minutes:seconds display and then click the up- and down-arrows to set the time, or you can click and drag the hands of the clock. (Gotta love that Microsoft, eh? An analog anachronism in a digital world.)

The Time Zone tab

Click the Time Zone tab to set your current time zone via the drop-down list box. You can also set Windows XP to automatically adjust for daylight savings time.

The Internet Time tab

The last tab of this Properties dialog box is big fun: Click Internet Time on the Date and Time Properties box. If you've got an Internet connection that you use every day — either a dialup or an always-on digital subscriber line (DSL)/cable modem connection — you can set XP to automatically set its own clock by using an Internet time server! Forget setting the clock manually.

Select the Automatically Synchronize with an Internet Time Server check box to enable it and then click the Server drop-down list to select a time server.

Killing the Messenger

Many people think of Windows Messenger as an intrusive time sink, only marginally more annoying than having a swarm of killer bees take up residence on a motherboard. Bosses hate it because somewhere between 70 and 99 percent of all the Windows Messenger traffic on business computers consists of vapid personal time-wasting conversations.

This is a perfect lead in to one of the most frequently asked questions about Windows XP: How do you get rid of Windows Messenger, completely, so that it doesn't start itself automatically, announce to the world at large when you're online, and start going garururump at the most annoying times?

Although it's true that you can turn off most of Windows Messenger's most annoying attributes by choosing Tools, Options and deselecting most of the check boxes on the Preferences tab, many people want to get rid of Windows Messenger completely.

While you can't get rid of Windows Messenger entirely -- Windows XP keeps vestiges of it around no matter how hard you try -- it's easy to take the program off your Start menu and basically drive a stake through its heart:

1. **Choose Start, Control Panel, Add or Remove Programs. Then click the icon marked Add/Remove Windows Components.** You see the Windows Component Wizard.
2. **Deselect the Windows Messenger check box, and then click Next.**
3. **When the wizard is done, click Finish.** All visible evidence of Windows Messenger should be well and truly gone.

If you change your mind and want Windows Messenger back, follow the same three steps, but in Step 2, select the Windows Messenger check box.

Talking Trash about the Recycle Bin

"Mom, where do we empty the recycled files?" Techno-nerds still chuckle about "recycled" ones and zeroes, but the XP Recycle Bin is a popular spot on your desktop, and you'll eventually have to empty it. (You can tell whether it's holding deleted items because a discarded document suddenly pops up in the bin.)

To delete the contents of the Recycle Bin, right-click it and then choose Empty Recycle Bin from the pop-up menu that appears.

Windows will eventually delete older items from the Recycle Bin automatically — or when you use the Disk Cleanup Wizard. However, you'll free up space every time that you empty the Recycle Bin, and sometimes that extra space can come in very handy on a drive that's filled to the brim.

By default, Windows will prompt you for confirmation before deleting your trash. If you feel that such clucking is overdoing things and you want to banish this file deletion confirmation, right-click the Recycle Bin and choose Properties. Click the Global tab and then clear the Display Delete Confirmation Dialog check box to disable it.

Here's a feeling that we've all shared from time to time: You suddenly realize that you just dropped your Great American Novel into the XP Recycle Bin by mistake. (Hint: If you back up your files on a regular basis, you won't panic nearly as much as the poor PC owner who has never backed up.)

However, there's still a chance that you can recover from your mistake and recover that orphaned Word document from the Recycle Bin! (The quicker that you try a rescue after you realize the error, the better; read on to discover why.) Follow these steps:

1. Double-click the Recycle Bin to display its contents.

2. Select the item(s) that you want to restore.

3. Click Restore the Selected Items from the Recycle Bin window Task pane. Alternatively, you can right-click a single item and then choose Restore from the pop-up menu that appears.

The Recycle Bin is great, but it's not a perfect solution because Windows XP might use the space taken up on your hard drive by a deleted item to store new data, which will make restoration impossible. You're wise to restore a deleted item *as soon as possible* —immediately after you catch your mistake.

Security+ Certification: Shoring Up Your Defenses

Hardening refers to the process of making changes to a computer or network device in order to make it less vulnerable to intruders. This is important because the computers and networks that an organization uses are expected to continue functioning without interruption; the business information contained in or processed by them is expected to maintain its integrity.

For a number of reasons that are not germane to the topic of Security+ certification, systems do not come from their manufacturers in a completely hardened state. It is up to the organization that uses the systems to perform all hardening procedures that are appropriate for their environment.

The proper hardening of a system boils down to five principles:

- **Keep security patches and fixes current.** Virtually every hardware and software vendor from time to time releases security patches. It is essential that every organization using the product install the security patch as soon as possible in order to prevent security incidents.

- **Disable or remove unnecessary components.** If a software component on a system is unused, it is probably unnecessary. Every unnecessary component on a system must either be disabled or, better yet, removed altogether. When a software component is removed from a system, then any vulnerability discovered in that component cannot pose a risk to the system. If the flawed component is not running or is not present, then it cannot be used to break in to a system.

- **Disable default access configurations.** Systems and network devices may have default accounts and/or passwords that, if unchanged, provide easy access by an intruder. Guest accounts should be disabled or removed; default passwords must be changed; accounts with no passwords must be disabled or passwords assigned.

- **Tighten access controls.** Too often, access permissions to resources such as programs or files are too lax. In an effort to get a new service up and running, system administrators frequently change access controls to "wide open" and then, in their haste to complete the project, neglect to tighten down access. Later, the "wide open" access can be exploited by an intruder who can steal or damage information.

- **Turn on audit logging.** Many operating systems and applications, while they contain an event/access/audit logging feature, frequently are shipped with logging turned off or disabled. By using event logging, it may be possible to re-trace some of the steps taken by an intruder.

These universal principles apply in just about every situation regarding computers and network devices. If system and network engineers are diligent and follow these principles, then the majority of potential security incidents will be prevented.

Security flaws and patches

Computers and network devices have at their core one or more software programs that control their operation. Being written, installed, and managed by imperfect humans, sometimes computers and network devices contain flaws that permit unexpected behavior. Once in a while this unexpected behavior results in someone being able to control or alter the system. This is generally known as a *security flaw.*

Other malfunctions in software result in the system just not running as expected. While they may not take the form of security flaws, they may be irritating nonetheless.

The companies that make and support systems have people whose job it is to create software updates. Depending upon the reason for the creation of the update, it may take many forms:

- **Service Release.** Also known as a version upgrade or service pack, service releases usually contain many fixes, and even feature enhancements or upgrades. Service releases are generally produced from once to three or four times per year.

- **Patch.** Also known as a hotfix, a patch is designed to change one specific problem. While the changes in a patch are usually included in a Service Release, generally a patch is produced because there is a heightened urgency. Typically a vendor produces a patch because it believes that its customers should install it immediately instead of waiting for the next service release to address the issue.

Disable unnecessary services

An unused but running application or service can increase the risk to a system. Take, for example, the FTP service. FTP is reliable and adequate security when configured correctly.

Suppose, for instance, that a serious flaw was discovered in FTP. Say, if you provided a certain pattern in the password field, you would be able to control the system. This would jeopardize the integrity of the system. However, if FTP was not used on a given system, then it should be either disabled or removed. This would eliminate the threat caused by the FTP flaw, because if FTP is not running on the system, then it cannot be exploited in order to compromise the system.

Disable default access

In order to facilitate their initial configuration or use, many systems are shipped to the customer with a guest account, and perhaps a default password on one or more administrative accounts. If these accounts are not changed or disabled, then an intruder who knows the factory default passwords or other access methods might be able to control a system.

It is imperative, then, to perform any or all of the following:

- Disable or remove Guest accounts.

- Change any default passwords on accounts.

- Make sure that all accounts have passwords.

Accounts and passwords are a system's first line of defense, so it is important to not make it *too* easy for an intruder to compromise your system.

Tighten access controls

Access to everything related to computers and networks must be restricted to only those individuals who have a bona fide business reason to access them. Consider the following pointers:

- Resist the temptation to change access permissions to "wide open" (permitting access to anyone and everyone).

- Adopt the principle of "denied unless explicitly permitted". In other words, the default access permission to a resource should be "denied." Then, explicitly permit access to specific groups or individuals as needed. This works better than "permitted unless explicitly denied," which permits new users to access an otherwise closed resource (unless the administrator is 100 percent diligent and always adds every new user to the "denied" list of every managed resource).

- Adopt the principle of "users only have the fewest privileges necessary for them to perform their job." This is known as the principle of "least privilege."

Turn on Audit Logging

Audit Logging is a feature present in most OSes, databases, and larger applications where most (if not all) user and administrative transactions are independently recorded. This provides an audit trail that can be used to piece together routine or unusual events.

Audit logging at a minimum should contain the following items that describe a transaction or event:

- **Who** performed the transaction. This is generally the userid associated with the transaction.

- **When** the transaction was performed.

- **What** was contained in the transaction. Depending upon the nature of the transaction, this may contain "old" and "new" values, or a description of the transaction.

- **Where** the transaction was performed. This will generally be a terminal ID or an IP address.

Converting Office Documents into PDF Files

PDFMaker 5.0 for Windows makes it ridiculously easy to turn any Word, Excel, or PowerPoint document you create or edit with the Office 2000 or Office XP (2002) editions of these programs into the latest and greatest versions of PDF documents — all you have to do is click the Convert to Adobe PDF button on the PDFMaker 5.0 toolbar (automatically added when you install Acrobat 5.0 for Windows on your computer). But before you touch that button, take a gander at these commandments for making perfect PDF conversions.

Check for consistent use of heading styles

Click the Document Map button on the Standard toolbar to display the headings and their hierarchical relationship in the Document Map pane in Word. Because PDFMaker can automatically convert all Word document headings into bookmarks in the resulting PDF document, you should make sure that all the headings in your document use the appropriate Heading style. Word 2002 users can display the Styles and Formatting task pane (choose View --> Task Pane and then click Styles and Formatting on the Task Pane pop-up menu) to check and, if necessary, reapply the Heading styles.

Check the paging of Excel worksheets

Choose View --> Page Break Preview on the Excel menus. Because PDFMaker uses the current paging of the Excel worksheet in constructing the pages in the resulting PDF document, you will want to verify the page breaks before doing the conversion. Remedy bad page breaks that separate columns and rows of data that should appear together on a page by dragging the page break markers in the Page Break Preview mode.

Verify which type of PDF document you're creating

You do this by checking the name that appears in the Conversion Settings combo box on the Settings tab of the Acrobat 5.0 PDFMaker 5.0 dialog box (Acrobat --> Change Conversion Settings). When selecting among these presets, keep in mind the major use of the final PDF document: Select eBook for online viewing, Press for professional printing, Print for in-house printing, and Screen for fast downloading and viewing on the Web. Also, keep in mind that you can customize any of these presets by selecting it in the Conversion Settings combo box and then clicking the Edit Conversion Settings button.

Confirm that all Word document headings and styles will be converted into bookmarks

Verify which settings are selected on the Bookmarks tab of the Acrobat 5.0 PDFMaker 5.0 dialog box (Acrobat --> Change Conversion Settings) in Word. Click the Convert Word Headings to Bookmarks check box to convert all Heading paragraph styles used in the document into bookmarks in the resulting PDF file. Click the Convert Word Styles to Bookmarks check box to convert all the other paragraph styles used in the document to bookmarks as well. To omit certain levels of headings or particular styles from bookmark conversion, click their individual check boxes that appear in the list box below.

Verify which Word features are marked for conversion in the PDF document

Verify which Word Features settings are selected on the Office tab of the Acrobat 5.0 PDFMaker 5.0 dialog box (Acrobat --> Change Conversion Settings) in Word. To convert document comments to hidden notes in the PDF document, select the Comments --> Notes check box. To add text boxes to the adjoining text using the PDF Articles feature, select the Text Boxes --> Article Threads check box. To retain the page numbers used in the Word document, select the Page Numbers check box. To convert all cross-references and any table of contents generated in the Word document into links in the PDF document, select the Cross References & TOC Links check box. To convert all footnotes and endnotes added to the Word document into links in the resulting PDF file, select the Footnote & Endnote Links check box.

Make sure that you're creating a tagged PDF file

Verify that the Embed Tags in PDF (Accessibility, Reflow) check box option on the Office tab of the Acrobat 5.0 PDFMaker 5.0 dialog box (Acrobat --> Change Conversion Settings) has a check mark in it.

Confirm how the converted PDF document is set to open in Acrobat

Verify the Document Open options on the Display Options tab of the Acrobat 5.0 PDFMaker 5.0 dialog box (Acrobat --> Change Conversion Settings). To open the PDF document without displaying the Bookmarks palette in the Navigation pane, click the Page Only radio button. To display a page other than the first page upon opening, enter the page number in the Page Number field. To open the page at a set magnification, click the percentage (200, 400, 800, or 1600) or preset view (Fit in Window, Fit Width, or Fit Visible) in the Open Magnification pop-up menu.

Sending a "Sorry, I'm Away" Message

Suppose you go away on a business trip or vacation and Quentin Tarantino sends you an e-mail message. The world-famous director wants you to be in his next movie. Snubbing the director and missing your big chance at movie fame is, of course, unthinkable. To keep that from happening, you can tell Yahoo! Mail to automatically reply to all who send you e-mail while you're away. Yahoo! calls this kind of response a vacation response.

Follow these steps to compose a vacation response and tell Yahoo! Mail how long to keep sending it:

1. Choose Mail, Options or click the Mail Options link to go to the Mail Options window.
2. Click the Vacation Response link (you may have to scroll down the window to find it).
3. In the Vacation Response window, write the response and declare how long to send it.
4. Click the Turn Auto-Response On button.

If you change your mind about responding, return to the Vacation Response window and click the Turn Auto-Response Off button.

Securing Your Data

The buzz about security these days is all about the Internet. Everyone is worried about all the nefarious programs that can be delivered right to your system via the Internet. Problem is, the Internet is not your biggest security problem. The biggest threat you face is to your local machine -- security issues would exist even if you unplugged the network cable that leads to the Internet.

This is not to say that you shouldn't pay attention to Internet-related security; you should. You just need to be aware that if you don't make your system secure from non-Internet-related threats, you're missing the most likely source of security problems.

Consider these, as examples:

- **Data loss.** You have hundreds, if not thousands, of hours invested in the data on your system. The old adage is true: Time is money. So the time you spend amassing your data represents a huge investment. Losing data is a huge security risk. If you run a small business and lose your data, your business could be severely damaged.

  The more your investment is worth, the more important it is to back up data. Minimize the chances of damage by periodically doing backups.

- **Data recovery.** When you delete information from your hard drive, Windows marks as free the hard drive locations previously occupied by the data. This means the locations are once again available to store information. Notice that Windows only marks the locations as available; it doesn't actually delete data. That's right -- the data previously stored on the hard drive is still there, until it's overwritten by new data. With the right tools, the data in these deleted locations can even be recovered and viewed.

  The accessibility poses a security threat if someone starts using your system. To avoid this problem, many disk utilities include programs that completely erase data by overwriting it with new data and then deleting it. System Mechanic includes a program called Drive Scrubber, and McAfee's QuickClean includes a program called Digital Shredder. Either program -- or their counterparts from other system utilities -- helps ensure the security of deleted data.

  If you give your system away or sell it to someone else, they can use software to access your deleted data. Make sure you use a secure deletion program like Drive Scrubber or Digital Shredder to remove all traces of your data before the old system leaves your hands.

Configuring Your Fax Settings

In order to start faxing with Windows 2000, you first have to tweak your fax modem to get it properly set up. If you want to establish (or change) a setting for the fax modem, follow these steps:

1. **Click the Start button and then choose Programs, Accessories, Communications, Fax, and Fax Service Management from the menus that pop up.**
2. **Click on Devices on the left side of the window.** This brings up a list on the right-hand side of the window showing the fax device(s) attached to your computer.
3. **Right-click the device you want to fix, and choose Properties from the menu that pops up.**
4. **On the General tab of the Properties page, check the Enable Receive box in the Receive section.** This prepares your fax device to receive incoming faxes.

   The only other setting you might want to change here is Rings Before Answer, which determines how many times the incoming phone line will ring before the fax device picks up the call. Use the little up and down arrows to put your favorite number in the box, or just type it in.

5. **Click the Received Faxes tab to specify what happens to incoming faxes on your computer.**

   Basically, you can do one of three things with incoming faxes: print, save to a folder on your computer, or send to an e-mail box.

6. **Click OK to return to the Fax Service Management screen and the hard part is all done.**
7. **Click the close box in the upper-right corner of the Fax Service Management window to make it go away.**

Shutting Down Windows

Although the big argument used to be about saturated and unsaturated fats, today's generation has found a new source of disagreement: Should a computer be left on all the time or turned off at the end of the day? Both camps have decent arguments, and there's no real answer (except that you should always turn off your monitor when you won't be using it for a half hour or so).

However, if you decide to turn off your computer, don't just head for the off switch. First, you need to tell Windows about your plans.

To do that, click the Shut Down command from the Start menu and then click the Shut Down button from the box that appears. Finally, click the Yes button; that click tells Windows to put away all your programs and to make sure that you've saved all your important files.

After Windows has prepared the computer to be turned off, a message on the screen says that it's okay to reach for the Big Switch.

The Windows Shut Down menu offers several options now, as you can see by the following list:

- **Shut down:** Click here, and Windows saves your work, prepares your computer to be shut off, and automatically turns off the power. Use this option when you're done computing for the day.
- **Restart:** Here, Windows saves your work and prepares your computer to be shut off. However, it then restarts your computer. Use this option when installing new software, changing settings, or trying to stop Windows from doing something weird.
- **Standby:** Save your work before choosing this one; it doesn't save your work automatically. Instead, it lets your computer doze for a bit to save power, but it wakes up at the touch of a button.
- **Hibernate:** Only offered on some computers, this works much like Shut down. It saves your work and turns off your computer. However, when turned on again, your computer presents your desktop just as you left it: Open programs and windows appear in the same place.

The Hibernate command takes all of your currently open information and writes it to the hard drive in one big chunk. Then, to re-create your desktop, it reads that big chunk and places it back on your desktop. It's not as safe as shutting down your computer.

Don't ever turn off your computer unless you've first used the Shut Down command from the Start button. Windows needs to prepare itself for the shutdown, or it may accidentally eat some of your important information.

Reining In Windows Update

Most updates fix newly discovered security holes in Windows. While many of these problems are obscure and not used in any rampant viruses or worms, you're much better off getting an update that you don't need than you are if you don't get any updates at all.

Running constant updates is a nuisance, but the alternative is really worth complaining about. Not so long ago Microsoft didn't bother fixing bugs and security problems for the unwashed masses. Only after a lot of sustained public pressure has Microsoft recognized that customers expect their systems to be patched for the most egregious bugs and holes.

There have been reports that Windows Update automatically, without your consent, sends a list of your installed programs back to Microsoft. As of now, this gaffe appears to be innocent enough, but Microsoft's track record on such issues of trustworthiness leaves much to be desired. If you're concerned that Microsoft may use the data collected by Windows Update for nefarious purposes, this technique shows you how to bypass the scanning software and choose updates on your terms.

Shortly after you installed Windows XP, or after you started your new machine for the first time, a balloon appeared in the notification area (near the clock) saying Stay Current with Automatic Updates. No doubt you clicked that balloon and followed the wizard to establish your Automatic Update settings. The settings you chose then are precisely the same ones in the following procedure; whatever good (or bad) choices you made then can be completely overwritten by this procedure.

Windows XP has a nasty habit of installing updates without your knowledge or consent. That sounds like a great timesaver, but it isn't. Why? Microsoft has a very poor track record with testing these updates. A significant percentage of the updates have show-stopping bugs that would never survive an extensive testing regimen. Microsoft is under the gun to plug security holes. There's much less pressure to, say, ensure that a specific patch works with Norton Internet Security, or any of a half-dozen major antivirus products. If you blithely install all of the updates when Microsoft says they're ready, you're exposing yourself to potential problems unnecessarily.

It's one of those darned-if-you-do-darned-if-you-don't situations that salmon seem to encounter every year (if you'll pardon the fishy metaphor). On the one hand, if you apply Microsoft's patches as soon as they're available, there's a chance that your PC will get all screwed up. On the other hand, if you don't install the patches, some cretin who learned about a security hole when a patch was issued could come along and blast you with a worm. Your chances of getting clobbered by a bad patch are higher than your chances of getting zapped with a worm. So it makes sense to avoid applying Windows updates until you know that they're solid.

Your first big step in taking control of Windows Update is to make it run only when you bid it:

1. Click Start, Control Panel, Performance and Maintenance, System, Automatic Updates.

Windows XP displays the System Properties dialog box.

2. If you don't mind having Microsoft's automatic scanning software run on your computer, check the box marked Keep My Computer Up to Date.

If you don't like the idea of a Microsoft sniffer program running on your PC, reporting back to

Microsoft on all the software and hardware that you have, uncheck that check box.

3. Click the radio button marked Notify Me Before Downloading Any Updates and Notify Me Again Before Installing Them on My Computer.

4. Click OK.

Using those settings ensures that Windows Update doesn't go in and mangle your machine without your explicit knowledge and approval.

Import Old E-mail Addresses into Outlook Express?

Most people consider e-mail to be the Internet's most valuable aspect. That's why changing e-mail programs can be as frightening as moving the Steinway to a new apartment: Switching to Outlook Express means moving all the old program's e-mail addresses to the new program. How?

1. **Click on the program's Inbox icon.**
2. **Click on File from the main menu.**
3. **Follow that with Import and then Address Book.**
4. **When a list of competing e-mail programs pops up in a window, select your old program's name from the list and click on the Import button.** Your addresses copy themselves into their new mailbox.
5. **Click on the Close button to finish.**

If Outlook Express can't locate your old address book, it invites you to search for it yourself. Click on Yes for a chance to rummage through the lists of files, folders, and disk drives in the window that appears.
When you find the program's address book, double-click on its filename; Outlook Express takes over from there.
Outlook Express can also salvage old messages from the e-mail program that you're now tossing by the wayside. Click on File from the Outlook Express main menu, and then click on Import and choose the Messages option. Choose your old e-mail program's name from the list, just as you did with the address book, and the converter does its work. Saved messages can be crucial to tracking and carrying out projects, so import your old messages immediately after importing your old address book.

Discovering the Many Ways to View Your Messages in Outlook 2000

You can view your messages in at least ten ways, beginning with the set that comes with Microsoft Outlook. You can modify each view by sorting on any column of information in any view by clicking the title of that column.
To change your view of your messages in Outlook, choose View-->Current View, and then choose one of the following views from the menu:

- **Messages.** This is the no-frills picture of your Inbox — From, To, Subject — just the basics. Messages that you haven't read yet are listed in boldface type; the others are listed in plain type.

- **Messages with AutoPreview.** When you don't have time to read all the messages you get, a preview is helpful. The first few lines can give you a hint as to which messages you want to read. AutoPreview shows you these first few lines.

  Normally, you see previews only of messages that you haven't read yet. You see only the titles of messages that you have read. Actually, Outlook assumes that you've read any message you've

opened. You can also mark a message read or unread by right-clicking it and choosing Mark as Read or Mark as Unread.

- **By Follow-Up Flag.** You can flag incoming messages to help you keep track of what you have to do in response to each message. Flagged view groups your messages according to whether flags are set on the messages, and lists what kinds of flags are set and when they're due.

  Some experts say that the most efficient way to deal with all your incoming messages is to file them according to what you need to do with them and then act upon them according to each message's priority and timing. Message flags are one handy way of getting a handle on what you have to do with the messages that you get. By Follow-Up Flag view automatically organizes your messages according to the action that they demand, making you instantly efficient, right?

- **Last Seven Days.** When you're asked to take immediate action on a message you received a few days ago, it's not always easy to find the message that told you what to do, especially if you get lots of e-mail. Last Seven Days view shows you only the messages that you got within the past week. Finding an item in a short list is easier than in a long one.

  The Last Seven Days list limits your view to messages that arrive in a seven-day time period. It does not sort messages according to what's in them or who sent them. You can sort your messages according to the name of the sender or the subject of the message by clicking the titles at the top of the columns in the view.

- **Flagged for Next Seven Days.** If you're flagging messages that are really important, the messages that you've flagged to get your attention in the next few days are likely to require your attention first. For a quick look at the hottest of the hot items, use Flagged for Next Seven Days view.

  Like Flagged view, Flagged for Next Seven Days view cuts to the essentials: who sent the message, what the subject of the message is, and when action is due on the message that is marked.

- **By Conversation Topic.** You should always include a subject line that's easy to understand so that the person who gets your message knows at first glance the topic of your message and what to do about it. With any luck, other people do the same thing for you. Then you can really get some mileage from your messages by sorting them in By Conversation Topic view.

- **By Sender.** When the boss calls and asks, "Did you get the e-mail message about bonuses that I sent you three weeks ago?" you probably don't want to spend a great deal of time sorting through everybody else's messages from the past three weeks. The quickest way to answer the boss's question promptly is to switch to By Sender view.

  You can instantly find the boss's name in By Sender view. Double-click the message titled Bonuses. Then you can tell the boss, "I certainly did; it's right here in front of me." You'll be able to reply so quickly that the boss will be glad to give you that bonus.

- **Unread Messages.** You don't have to read every message that comes across your screen, but Murphy's Law says that the most important information will be in a message that you haven't read yet. The Unread Messages view gives you a quick peek at the things you haven't taken a quick peek at yet.

  Don't leave your Inbox in the Unread Messages view all the time because messages will seem to vanish when you finish reading them. It's easier to use Messages view most of the time and switch to Unread Messages view now and then as a strategy for finding things.

- **Sent To.** It may seem silly to have a view of your Inbox sorted according to the name of the person each message is sent to. After all, it's your Inbox; everything should be sent to you, or it wouldn't be here, right?

You have two reasons for using Sent To view. Some messages that come to you are addressed to everybody at your company, for example, so it's good to know that certain messages shouldn't be taken personally. The second reason is that the same set of views is available in the Inbox and the Sent Items folder. The Sent Items folder is where Outlook keeps copies of messages that you've sent to other people. Knowing what you sent to whom can come in very handy.

Sent To view is only sorted, not grouped, which means that the messages appear in order of the names of the people who sent them. A grouped view would display as the heading of a group the name of each person who has sent you mail. If you click the Subject column, you lose the benefit of having the list sorted by sender. If your Sent To list appears to be sorted incorrectly, just click the word To at the top of the To column.

- **Message Timeline.** The Message Timeline view is one of the most interesting views in Outlook; it draws you a graph of all your messages according to when they arrived. Message Timeline view is designed to help you find messages when you can remember when they arrived but not why they arrived or who sent them.

  The little icons that represent the messages are actually shortcuts to the messages that they represent. You can open a message by double-clicking the icon for that message. You can also right-click the message icon to reply to a message, delete a message, or move a message to another folder.

Fading Menus

Every time you turn around, some new "effect" has been added to Windows. Perhaps there are a bunch of people at Microsoft whose only job it is to make things look weird. In Windows 2000, one of their weirdnesses is the fading menu. In other words, when you open a Windows 2000 menu, instead of unfolding onto the desktop, it sort of *appears*. If you find this disconcerting, you can change the fading menu back to a scrolling menu, using these steps.

1. **Right-click on a blank spot on the Desktop and select Properties from the menu that pops up (or fades in).**
2. **Click the tab labeled Effects.**
3. **On the Effects page, change the Fade effect to Scroll effect in the Visual Effects area.** Or clear the check box entirely for an effect that's hardly special at all. The menus appear but they don't fade in and they don't scroll out.

Click OK when you're done.

Talking Trash about the Recycle Bin

"Mom, where do we empty the recycled files?" Techno-nerds still chuckle about "recycled" ones and zeroes, but the XP Recycle Bin is a popular spot on your desktop, and you'll eventually have to empty it. (You can tell whether it's holding deleted items because a discarded document suddenly pops up in the bin.)

To delete the contents of the Recycle Bin, right-click it and then choose Empty Recycle Bin from the pop-up menu that appears.

Windows will eventually delete older items from the Recycle Bin automatically — or when you use the Disk Cleanup Wizard. However, you'll free up space every time that you empty the Recycle Bin, and sometimes that extra space can come in very handy on a drive that's filled to the brim.

By default, Windows will prompt you for confirmation before deleting your trash. If you feel that such clucking is overdoing things and you want to banish this file deletion confirmation, right-click the Recycle Bin and choose Properties. Click the Global tab and then clear the Display Delete

Confirmation Dialog check box to disable it.

Here's a feeling that we've all shared from time to time: You suddenly realize that you just dropped your Great American Novel into the XP Recycle Bin by mistake. (Hint: If you back up your files on a regular basis, you won't panic nearly as much as the poor PC owner who has never backed up.)

However, there's still a chance that you can recover from your mistake and recover that orphaned Word document from the Recycle Bin! (The quicker that you try a rescue after you realize the error, the better; read on to discover why.) Follow these steps:

1. Double-click the Recycle Bin to display its contents.

2. Select the item(s) that you want to restore.

3. Click Restore the Selected Items from the Recycle Bin window Task pane. Alternatively, you can right-click a single item and then choose Restore from the pop-up menu that appears.

The Recycle Bin is great, but it's not a perfect solution because Windows XP might use the space taken up on your hard drive by a deleted item to store new data, which will make restoration impossible. You're wise to restore a deleted item *as soon as possible* —immediately after you catch your mistake.

Making Windows Start Programs Automatically

Many people sit down at a computer, turn it on, and go through the same mechanical process of loading their oft-used programs. Believe it or not, Windows XP can automate this computerized task.
The solution is the StartUp folder, found lurking in the Start button's All Programs area. When Windows XP wakes up, it peeks inside that StartUp folder. If it finds a shortcut lurking inside, it grabs that shortcut's program and tosses it onto the screen
Here's how to determine which programs wake up along with Windows and which ones get to sleep in a little:

1. **Right-click on the Start button and choose the Open option.** The My Computer program comes to the screen, displaying a Programs folder.
2. **Double-click the folder named Programs.** You see shortcuts and folders for most of the programs currently listed in your Start button's All Programs area.
3. **Double-click the folder named StartUp to open it onto your screen.**
4. **Using your right mouse button, drag and drop any programs or files you want to start automatically into the StartUp window.**

If Windows asks, tell it to turn those programs or files into shortcuts. Then, whenever you start Windows XP from scratch, those programs or files load up right along with it.

The items in the StartUp area load themselves only when you log onto Windows after logging off. If you've clicked the Switch Users button instead of the Log Off button, Windows considers you still at work. It launches the StartUp items only after you've logged off and Windows has saved your settings.

Returning Your Computer to Happier Times with System Restore

Ever dragged yourself into bed after a particularly disastrous day, wishing you could wake up the next morning and find everything back to normal?

Although things usually remain the same when we wake up, that doesn't have to be the case with Windows XP and its built-in System Restore feature.

System Restore (also built into Windows Me) provides Windows XP with an easy way to bring peace back into a troubled world. Every so often, the System Restore program takes a "snapshot" of Windows XP's key internal settings and saves them by date, known as a "Restore Point." When Windows XP is behaving badly on your system, call up System Restore and tell it to return to a Restore Point when everything was working correctly.

Windows XP quickly loads the settings it used on that Restore Point's date, and when Windows XP restarts, it works just as well as it did on that day in the past.

If you choose a Restore Point that somehow makes things even worse than they were, head back to System Restore and chose Undo My Last Restoration. System Restore promptly discards those settings, restarts, and lets you choose a different Restore Point.

Because everything System Restore does is reversible, there's rarely much to lose in giving it a try. Read on to discover how to use System Restore to its full potential.

Finding the System Restore program

For some reason, Microsoft hid the darn thing. To locate System Restore, put on your wading boots and click your Start menu. Point to All Programs, then Accessories, then System Tools, and finally, click on System Restore. (You can also find System Restore hidden in the Control Panel under Performance and Maintenance.)

Making your own Restore Points

System Restore normally takes a snapshot of your computer's settings on a daily basis. It usually takes another automatic snapshot when you install a new computer part - just in case the newcomer causes problems. But feel free to create your own Restore Points when everything's running smoothly: Just call up System Restore and choose Create a Restore Point. Windows will ask you to describe your new Restore Point. The description is just something to help you remember why you made the Restore Point. Type something like, "Created just before installing the Eggplant Toss game." That way, if the Eggplant Toss game messes up your computer, you know which Restore Point will bring the computer back to sanity. (The Restore Points that Windows XP creates automatically have the boring, non-descript name "System Checkpoint.")

You don't need to include the date in your description, because Windows automatically gives each one a date stamp.

Eliminating Remnants of Failed Programs

A *failed program* is a program that never did get installed correctly or work properly. Perhaps the failed program is one where you got halfway through the download and the dog yanked your Internet connection from the wall. Or it could be one where you got most of the way through the installation program and it unexpectedly exited. The reasons for failure could be myriad, and all such failures lead to a cluttered system.

If you decide that you want to get rid of the failed program, put on your detective's cap and start looking around for what the program added to your system. You can do this by either looking for a log file or manually search for files.

If you can find the log file, you can read it to discover what was done, and then manually undo what was done. (Log files can typically be opened with Notepad or some other text editor.)

Installation log files can be in any number of places. If you downloaded a program to your hard drive prior to installation, the log file could be in the same folder where you placed the downloaded file. If the installation program already created a folder for the program, the log file could also be there. Or, the log file could be in a temporary folder that the install program used. Check the various Temp folders on your hard drive to see if anything is there.

After you find the pieces, figure out whether it's okay to delete those pieces. If in doubt, rename or move the pieces to a different folder and restart Windows. If you experience no repercussions from making the change, you can easily delete the files for good.

Changing Your Screen's Resolution

You chose your designer day planner, glow-in-the-dark gel pens, and solid maple inbox for your real world desktop, right? Why shouldn't the Windows desktop give you the same flexibility to make things look the way you like?

1. **Right-click the desktop to display a shortcut menu, and then choose Properties.**
2. **In the resulting Display Properties dialog box, click the Settings tab.**
3. **On the Settings tab, click the slider in the Screen Resolution area and move it to a higher or lower resolution.**

Higher resolutions, such as 1400 x 1050, produce smaller, crisper images. Lower resolutions, such as 800 x 600, produce larger, somewhat jagged images. The up side of higher resolution is that more fits on your screen; the down side is that words and graphics can be hard to see. One option: If fonts appear too small to read, change the Font Size setting on the Appearance tab of the Display Properties dialog box to be Large or Extra Large.

4. **Click OK to accept the new screen resolution.**

Shutting Down a Non-Responsive Application

What do you do when your system just freezes up? If you're trying to shut down a non-responsive application, press and hold down Ctrl+Alt+Del, which brings up the Task Manager and lets you close the non-responsive software. If you still can't close out of the problem application, press Ctrl+Alt+Del once again and Windows reboots. Sometimes this solves the problem, and you can get right back to work. Note that some applications use an Auto Save feature that keeps an interim version of the document that you were working in and you might be able to save some of your work by opening that last-saved version. Other programs don't have such a safety net, and you simply lose whatever changes you made to your document since the last time you last saved it. The moral? Save, and save often.

Taking Programs Off Your Computer

Windows XP includes an uninstall utility that takes the pain out of removing unneeded or obsolete versions of a program from your computer. To uninstall a program, follow these steps:

1. **Click the Start button and then click Control Panel to open the Control Panel window.**
2. **In the Category view, where you see a list of Control Panel categories, click the Add or Remove Programs hyperlink to open the Add or Remove Programs dialog box.** In the Classic view, where you see individual Control Panel icons, double-click the Add or Remove Programs icon.
3. **Click the Change or Remove Programs button on the left side of the Add or Remove dialog box to display the Currently Installed Programs list box.**
4. **In the Currently Installed Programs list box, click the program you want to remove** (when you click a program name, the description expands to include a Change/Remove button or separate Change and Remove buttons).
5. **Click the Change/Remove button or the Remove button, if Change and Remove are separate.**
6. **Click the OK button in the alert dialog box that appears to confirm your removal of the program.** When the uninstaller finishes removing the program, click the Close button to close the Add or Remove Programs dialog box and to return to the Control Panel window.

Use the Windows XP uninstaller to get rid of any unwanted program that you've installed with the Add or Remove Programs Control Panel. Using this utility to remove a program (rather than just deleting the program folder) ensures that all vestiges of the program are removed from the system and that you get back every byte of storage space to which you're entitled.

To remove unneeded Windows components, click the Add/Remove Windows Components button in the Add or Remove Programs dialog box and then locate and remove the check mark from the components you want removed before you select the Next button. Remember that if you remove the check mark from a category of components rather than from a particular component within that category, Windows will remove *all* the components.

Installing and Using Software with DOS

No one but a tech-head really likes to install software. A techie takes pride in trying to set the thing up without first reading the manuals. *Installation* means copying the program you've just bought from floppy disks to your computer's hard drive. It also means more, typically configuring or setting up the program to work with your particular PC, printer, and the rest of that stuff. That is why installation is best left up to your local computer guru. If not, you can follow the outline in this article. Because each computer program installs itself differently, this information is general It gives you a broad idea, though, of the task you're about to undertake.

Read me first!

Computer manuals and those national sweepstakes with you-know-who's picture on the envelope both have something in common: You get lots of little pieces of paper and instructions for the interesting things you must do. Computer manuals are easier to deal with. Seriously. You have no need to hunt through everything, fill out various forms, or paste Uncle Ed's picture inside the TV set. Just look for a sheet of paper somewhere that says "Read me first!" Read it, and you're on your way.

The installation program

You install a program by sticking Disk 1 into your PC's first floppy drive (drive A) and then running the installation program. If the disk doesn't fit in drive A, stick the disk into drive B and substitute B for A in the following instructions. The name of the installation program is usually Install, although Setup is also popular. Two steps are involved here. The first is logging to drive A. Basically, after sticking Disk 1 into floppy drive A (and closing the drive door latch for a 5-1/4-inch disk), you type

```
C> A:
```

Typing **A** and a colon logs you to drive A. Press Enter.

Next, you enter the name of the installation program. This name is probably listed in the manual, on the disk label, or on the "Read me first!" sheet of paper, or else that paper tells you where to find these instructions. Be wary! Even though installing the program is the first thing you ever do with it, it's rarely the first chapter in the manual.

For example, if the name of the installation program is INSTALL, you type

```
A> INSTALL
```

Press Enter.

Sometimes, the installation program is called SETUP. If so, you type

```
A> SETUP
```

Press Enter here, too.

Don't forget to *read the information on the screen!* It's important, especially for an installation program. In fact, many "experts" usually screw up software installation by not reading the information screens. Follow the instructions closely.

The location

The first thing the installation program asks you is "Where do you want to put me?" Dumb question. You want to put the program on your computer.

The application needs its own workspace on your hard drive. This space is referred to as a *subdirectory*. Only advanced users may have some special scheme or plan in this instance. You should accept whatever suggestion the installation program makes — it's probably a good one.

Configuring a computer application

Configuration is the stupidest part of setting up a computer application. This part is where the program asks you information about your own computer: "What kind of printer do you have? What kind of display or monitor is attached? How much memory do you have? Do you have a mouse?" These questions are ridiculous! After all, the computer program is asking you those questions, and it's already inside the computer, where it can look around more easily than you can.

Still, you may have to tell the computer what it has (which, again, is like asking other people how old you are at your next birthday party). These questions can be difficult. If you don't know the answers, grab someone who does. Otherwise, guess. The *default* or *automatic selection* options tell the program to guess on its own, so if they're available, select them.

An important item to select is a *printer driver,* which is a fancy way of telling the application which printer is manacled to your PC. Look for your printer's name and model number listed. If it's not there, select *Dumb* or *Line* printer (and then go to your dealer and beat up the guy who sold you the printer).

READ.ME file

Finally, last-minute instructions or information are offered in a special file on disk. It's given the name README, READ.ME, README.TXT, or README.DOC. Good installation programs ask you whether you want to view this file. Say yes. Look through the file for any information that applies to your situation.

A utility is usually offered with a program to provide automatic viewing of the READ.ME file. If not, you can view it by using this DOS command:

```
C> MORE < READ.ME
```

That's the MORE command, a space, a less-than sign (<), another space, and the name of the READ.ME file. If the file is named just README, type it without a period in the middle.

Using your new software

After you run the install or setup program, you get to use new software. As a suggestion, after installing any new software, reset your computer. Press Ctrl+Alt+Delete or punch your computer's Reset button. (Some installation programs may do this part automatically.)

WARNING Do not reset your computer if you're using Windows! In that case, just close the DOS prompt window and start it up again to begin using your software.

To use the new program, type its name at the DOS prompt. The program's name should be in the manual or on a quick-reference card.

You're doing this step just to make sure that the program works as advertised. If something doesn't work, don't be too quick to blame yourself. Programs have bugs. Keep in mind that the features of a new program aren't immediately obvious.

Mastering DOS Basics

You get work done on a computer by running a program. If you're lucky, somebody has set up your computer so that it automatically runs the program you need. Turn on the PC, and — zap! — there's your program. The only time you have a problem is when something goes wrong and the program *crashes* or doesn't turn on like it's supposed to. (Or, while you were at lunch, Petey from the mailroom came in and played games, leaving you with a C> on your screen to puzzle over.)

If you're on your own and nothing seems to happen automatically, you need to start a program yourself. Here's how:

First, you need to know the program's name. Then, you type that name at the command prompt.

For example, WordPerfect is named WP. To *run* WordPerfect, you type **WP** at the *DOS prompt* and then press Enter:

```
C> WP
```

To run Lotus 1-2-3, you type **123** at the DOS prompt and press the Enter key.

You can also run Windows programs from the DOS prompt if you are running Windows. For example, to start the Calculator program, type **CALC** at the DOS prompt:

```
C> CALC
```

Press the Enter key, and the Calculator program pops up on-screen. (Your DOS prompt window doesn't go away; just click it with your mouse to continue using DOS.)

- If your computer is set up to run some sort of menu system, try typing **MENU** at the DOS prompt to run it.

- Other terms for running a program include *loading* a program, *launching* a program, and *starting* a program.

- Alas, you can't run Windows programs from a DOS prompt in Windows 3.11. If you try, the computer informs you that the program requires Microsoft Windows.

TIP Under DOS, all program files are named with a COM, an EXE, or a BAT ending (called a *filename extension*). Don't bother typing that part of the name at the DOS prompt — and you don't have to type the period that separates COM, EXE, or BAT from the file's name.

Using the DIR command

The most popular DOS command is DIR, which displays on-screen a list of files on a disk. This command is how you can find which programs and data files are located on a disk. DIR is especially helpful if you're missing something; it helps you locate that document or spreadsheet you were recently working on.

To see a list of files, type **DIR** at the DOS prompt and press Enter:

```
C> DIR
```

If the list is too long, you can type the following DIR command:

```
C> DIR /P
```

The /P makes the listing pause after each screenful of files.

To see a list of filenames only, type the following DIR command:

```
C> DIR /W
```

The /W means *wide*, and it gives you a five-column, name-only list.

If you want to see the files on a floppy drive, follow the DIR command with the letter of the floppy drive:

```
C> DIR A:
```

In this example, DIR is followed by A:, indicating that the command should list files on any disk in that drive. (You should have a disk in the drive before you use that command.) If you want to find out which files are on drive B, for example, substitute B: for A:.

- You can use the DIR command to find files by name as well as to locate files in other *subdirectories* on the disk.

- The output of the DIR command shows a list of files on your disk. The list has five columns: the file's name, the file's extension (part of the name), the file's size (in bytes or characters), the date the file was created or last modified, and the time of the last modification.

- In Windows, the DIR command's output has *size* columns. The final column displays the long version of the filename (if there is one).

Looking at files

Two types of files are on a PC: English and Greek. You can use the TYPE command to display any file's contents. You can read the ones in English (or ASCII). The files in Greek — they're actually in secret computer code, but it may just as well be Greek — are program files or data files or any other stuff you can't read.

To look at a file, you must know its name. (If you don't know the name, you can use the DIR command; refer to the preceding section.) You type the file's name after the TYPE command and a space:

```
C> TYPE FILENAME.EXT
```

Press Enter to see the contents of the file, which is FILENAME.EXT in the preceding example. To see the contents of the LETTER.DOC file, for example, you would enter the following command:

```
C> TYPE LETTER.DOC
```

The file is then displayed on-screen.

A simple way to view — and edit — text files is to use the DOS Editor.

- If you get a File not found error message and you're certain that the file exists, you probably mistyped its name. Reenter the command and check your typing. Alternatively, you can use the DIR command to verify that the file exists.

- Text files usually end with TXT in their filename. The DOC ending is also popular, though DOC doesn't necessarily mean that it's a text file. Some common text filenames are READ.ME and README and sometimes README.TXT.

- You can't see all files, even though your application may display them perfectly. These "Greek" files typically contain special codes and functions for the computer, stuff that the program eats and then spits back at you as non-Greek information. Unfortunately, the TYPE command just isn't that smart.

Using DOS to Write-Protect and Reformat Disks

You can protect floppy disks in such a way as to prevent yourself or anyone else from modifying or deleting anything on the disk.

When a disk is write-protected, you cannot alter, modify, change, or delete anything on that disk. And you cannot accidentally reformat it. You can read from the disk and copy files from it, but changing the disk — forget it!

To write-protect a 5-1/4-inch disk, grab one of those tiny tabs that came with the disk in the box. Peel the tab and place it over the notch in the disk, which should be on the lower left side as you insert the disk into the drive (see Figure 1). With that notch covered, the disk is write-protected.
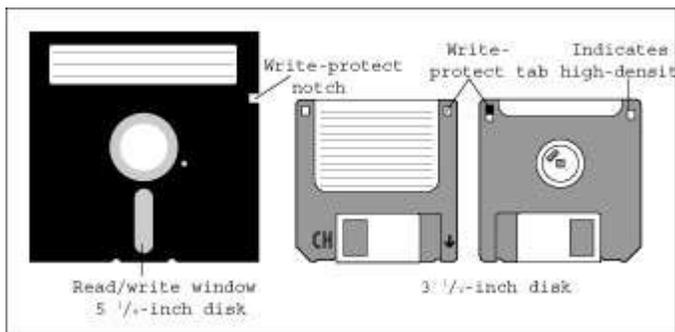
Figure 1: Write-protecting a disk prevents changes to your data.

To write-protect a 3-1/2-inch disk, locate the little sliding tile on the lower left side of the disk as you slide it into the drive. If the tile covers the hole, then you can write to the disk. If you slide the tile off the hole (so that you can see through it), the disk is write-protected (see Figure 1).

To un-write-protect a 5-1/4-inch disk, peel off the little tab. Although this action renders the disk sticky, it's a livable problem. You can un-write-protect 3-1/2-inch disks by sliding the tile over the hole.

Reformatting disks

Disks must be formatted before DOS can use them, and after they're formatted, you can reformat

them. You can format them under two circumstances: when you want to totally erase the disk and all its data or accidentally.

Obviously, you shouldn't erase a disk you don't want to erase. All the data on the disk goes bye-bye. The only way to avoid this situation is to be careful: Check the disk with the DIR command first. Make sure that it's a disk you want to reformat.

Don't be afraid to erase disks. You may have stacks of old disks that you can reformat and use. The data on them may be old or duplicated elsewhere, so reusing the disk is no problem. Here's the FORMAT command you want to use:

```
C> FORMAT A: /Q
```

That's the FORMAT command, a space, and then A and a colon, which directs the FORMAT command to format a disk in drive A. That's followed by another space and a slash-Q. That line tells DOS to *Quickformat* the disk. It's very fast.

If DOS refuses to Quickformat the disk, try this FORMAT command:

```
C> FORMAT A: /U
```

This command is the same as the last one but with a slash-U rather than a slash-Q. This command tells DOS to *unconditionally* format the disk. It takes longer than a Quickformat, but it generally works.

- If you want to reformat a disk in drive B, substitute B: for A: in these examples.

- Note that you cannot Quickformat a disk to a different size. In fact, you shouldn't be reformatting disks to a different size anyway. If you must, use the /U option, as just shown.

Quickformat only newer disks. If a disk has been sitting around awhile, use the FORMAT command without the /Q. Although that method takes longer, the FORMAT command does a better job to ensure that the disk is still usable.

- After formatting a disk, you see a list of statistics. If one of the statistics mentioned is xxxx bytes in bad sectors, you have a bum disk on your hands. If this is the case, then just toss it away. If you still have the receipt and the store said that the disks were "fully guaranteed," you can try to get your money back. Good luck!

- You can recover accidentally reformatted disks by using MS-DOS 6.2 and higher.

Duplicating disks (the DISKCOPY command)

To make a duplicate of a file on disk, you use the COPY command. To make a duplicate of a floppy disk, you use the DISKCOPY command. DISKCOPY takes one floppy and makes an exact duplicate of it, even formatting a new disk if it was previously unformatted.

Here are two things you cannot do with the DISKCOPY command:

- Use DISKCOPY to create two disks of different sizes or capacities.

- Use DISKCOPY with a hard disk or a *RAM drive.* (If you don't know what a RAM drive is, go to the refrigerator and reward yourself with a cool, carbonated beverage.)

When you copy disks, DOS refers to the original disk as the *SOURCE.* The disk to which you're copying is the *TARGET.*

To make a copy of a disk, first write-protect the original, the source. Put your write-protected original in drive A. Close the drive's door latch for a 5-1/4-inch disk.

Type this command at the DOS prompt:

```
C> DISKCOPY A: A:
```

That's DISKCOPY, a space, and then A: twice (which means that drive A is mentioned twice and separated by a space). Press Enter and DOS examines the disk, spews out some technical mumbo jumbo, and then

```
Reading from source diskette . . .
```

The drive churns away for a few moments. Then, you're asked to insert the target:

```
Insert TARGET diskette in drive A:
Press any key to continue
```

Remove the source disk and insert your duplicate disk. Close the door latch if you have a 5-1/4-inch disk. Press Enter.

```
Writing to target diskette . . .
```

Take a few seconds to put the original (the "source") back in a safe place. When the operation is complete, you can use the duplicate rather than the original.

- When the operation is complete, DOS asks whether you want to use DISKCOPY again. Press **Y** if you do or **N** if you don't.

- In MS-DOS 6.2, after the copy is complete, you're asked whether you want to make another duplicate of the same disk — another TARGET. Press **Y** if you do or **N** if you don't. Then you're asked whether you want to copy another disk (another SOURCE). Press **Y** if you do or **N** if you don't.

- You can use DISKCOPY in your drive B by substituting B: for A: in the preceding command.

- You can use the following DISKCOPY command if and *only* if your drives A and B are of the same size and capacity:

```
C> DISKCOPY A: B:
```

This command is faster because you don't have to swap disks.

- If the target disk is unformatted, DISKCOPY formats it. If it's already formatted, DISKCOPY replaces the original contents with the copy.

- The DISKCOPY command is the only accurate way to duplicate a disk. Even the COPY command cannot always make a full copy of all the files on a disk.

- You may be asked to swap the SOURCE and TARGET disks a few times. This process can be maddening. If it bothers you, consider updating to MS-DOS 6.2 or higher, where they (finally) stopped the DISKCOPY disk-swapping madness.

- Use DISKCOPY to copy disks for only your use, not for friends — it's illegal to copy licensed

programs for others.

Getting to Know DOS Directories

Computers are supposed to make life easier, not harder. Hard disk management is simply the way you use files on a hard drive. This concept involves some organization, and understanding that organization makes computing much easier.

What is a subdirectory?

A *subdirectory* is workspace on a disk. It's almost like a disk within a disk. You can copy files and programs into a subdirectory or workspace, and you can use DOS commands. The advantage to subdirectories is that you can store information in a subdirectory and keep it separate from other files on the same disk. That keeps the disk from getting file-messy.

Any disk can have subdirectories, though they're used primarily on hard drives to keep files separate and your programs organized. Rather than let you suffer through a hard drive with bazillions of files all in one place, subdirectories enable you to organize everything by placing information in separate areas.
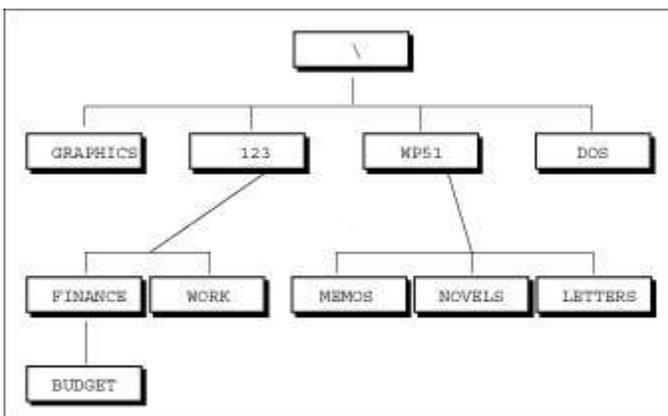
- Subdirectories could be called just *directories*. The prefix *sub* means "under," just as submarine means any large naval vessel a marine is standing on. All the workspaces on a disk are really directories. However, when you refer to one directory in relation to another, the term *subdirectory* is used.

- A subdirectory is the same thing as a *folder* in Windows terminology.

- All the directories on your disk create or are organized into what's called a *tree structure*.

The root directory

Every disk you use under DOS has one main directory, called the *root directory*. The root directory (often just called *the root*) exists on all DOS disks; it happens naturally, created when you first format the disk.

The symbol for the root directory is the single backslash (\). DOS uses this abbreviation — shorthand — in reference to the root directory. This symbol also plays an important role in the *pathname,* which is like a long filename.

Additional directories on a disk are subdirectories under the root directory. They branch off the root like branches of a tree. In fact, if you map out the directories on a disk and draw lines between each subdirectory, it looks like a family tree of sorts, as shown in Figure 1.

- The FORMAT command is used to prepare disks for use under DOS. In the formatting process, FORMAT also creates the root directory.

- Whenever you're using a disk, you're *logged to,* or currently using, a directory on that disk.

That funny <DIR> thing

To find a subdirectory on a disk, you use the DIR command. Directories are listed there, along with other files. The way you identify a directory name is by the <DIR> thing shown after its name (where other files would list their file size in bytes).

For example, consider this output from the DIR command:

```
Volume in drive C is DOS HAPPY
Volume Serial Number is 16CE-9B67
Directory of C:\
123 <DIR> 03-18-96 9:33p
COMM <DIR> 08-07-96 9:37p
DOS <DIR> 09-20-97 10:52p
GAMES <DIR> 09-22-97 5:18p
WP60 <DIR> 09-21-97 5:12p
AUTOEXEC BAT 574 09-05-97 10:04a
COMMAND COM 54,928 08-11-93 6:20a
CONFIG SYS 464 07-25-97 10:20a
WIN20 386 9,349 08-11-93 6:20a
9 file(s) 65,315 bytes
36,468,736 bytes free
```

The "files" 123, COMM, DOS, GAMES, and WP60 are actually directories on disk. At the top of the output in this example, Directory of C:\ tells you that you're looking at a directory of drive C (that's the C:), the root directory (shown by the backslash). The <DIR> entries in the listing are all subdirectories of the root directory.

- Subdirectories appear in the DIR command's listing because they're part of your disk, just like files. In fact, directories are named just like files and can even have an extension like a file.

- The C:\ is actually a pathname.

- Commas in big numbers appear only if you have MS-DOS 6.2 or later. Early versions of DOS don't use commas, which is just DOS's attempt to overwhelm you with large values.

Activating Windows

Here's a big secret: You don't really own Windows XP. Even when you buy Windows at the store, or it comes preinstalled on your new computer, it's not yours. No, the fine print says that only *Microsoft* owns Windows. You only own a license -- permission -- to run Windows on your computer. Worse than that, you're only granted permission to run Windows on a single computer.

In the past, many people bought one version of Windows -- one for both their desktop computer and for their laptop. And why not? They either used their desktop computer or their laptop -- they never used them both at the same time.

Windows XP changes that with its new Activation feature. When you install Windows XP, an annoying window pops up, asking you to "activate" your version of Windows. When you click the Activate button, Windows XP takes a "picture" of

your computer's components, links them to the serial number on your copy of Windows XP, and sends that information to Microsoft over the Internet.

Then, if you or anybody else ever tries to install that same version of Windows on a different computer, Windows XP says you're using somebody else's version of Windows XP, and it won't work.

- Okay, what happens if you don't bother to "activate" a copy of Windows XP? It simply stops working after 30 days. The new Activation feature ensures that each copy of Windows XP will only work on a single computer. Even if Windows XP came preinstalled on your new computer, you can't take the bundled Windows XP CD and install it on another computer.
- No Internet connection? Then you must call Microsoft's toll-free number, talk to a customer service representative, and activate your copy of Windows by typing in a 25-number password.
- If you want to install Windows XP on several computers, it might be cheaper to purchase a special multi-version license, called a Microsoft License Pak.

If you upgrade your computer -- adding lots of new parts -- Windows XP might think it's been installed on a new computer and stop working. The solution? You must call Microsoft's toll-free number and convince those folks that you're not trying to steal their software.

Hobbling the Guest Account

Do you really want to turn off the Windows XP account called Guest because you know it doesn't have a password and you're worried that some hacker or bad program is going to get into it?

Relax.

In the old days, a guest account on a networked PC served as a convenient way to let people onto a PC or network temporarily. The guest didn't need to know a password to log on, but the guest couldn't perform as many computing functions, either. That's where the term "guest" came from.

In XP, Windows makes it easy to "turn on" or "turn off" the Guest account. Here's how:

1. **Click Start, Control Panel ,User Accounts.** The Guest account is the last account listed. If Guest appears as one of the accounts on the Windows Welcome screen, you see an on-screen message that says Guest account is on. If there is no Guest on the welcome screen, Windows says Guest account is off.
2. **Click the Guest account.** You see the User Accounts dialog box.
3. **If you don't want Guest to be visible on the Welcome screen, click Turn Off the Guest Account.** If you want Guest to be visible, click Turn On the Guest Account.
4. **Close the User Accounts dialog box.**

You might assume that this procedure turns the account called Guest on or off. It doesn't. Windows XP is fooling you. In Windows XP, Guest plays a pivotal role. Among other things, Windows uses Guest to communicate between computers, run print jobs, and perform a plethora of other behind-the-scenes functions. Windows can't let you turn off the Guest account. If you did, all sorts of things would go bump in the night.

You may find detailed instructions on the Web that show you how to really turn off Guest. It's difficult, but it can be done. Resist the temptation. Leave Guest going.