

THOMSON



COURSE TECHNOLOGY

Fixing Windows XP

Chapter 1

Windows XP Quick Fixes

Objectives

- Learn some quick fixes to make Windows young again and keep it that way
- Learn what to expect from the rest of this book as you learn to solve Windows XP problems

Introduction

- Assumptions about the reader:
 - Knowledgeable Windows XP user, able to install and use applications, and comfortable with common Windows tools such as Windows Explorer
 - New to Windows troubleshooting
 - Plans to use these skills not only to fix your own Windows XP problems, but also to help other users

Introduction (continued)

- Common Windows XP problem – Windows is slow
 - Caused by poor maintenance
 - Address by using:
 - Simple and easy-to-use Windows XP tools
 - Routine maintenance tasks
- Learn how to:
 - Approach a Windows problem
 - Set priorities
 - Plan a fix

How to Make Windows Young Again

- A Windows system can be slow because:
 - Too many applications running
 - Corrupted or outdated device drivers
 - Viruses, adware, worms, and malicious software
 - Insufficient free space for the hard drive to work
 - Fragmented hard drive
 - Insufficient RAM

Do a Quick Physical

- Begin with a hard boot
- Note any hardware errors during the boot
- Identify processor and RAM using System Information or System Properties
- Identify installed Windows XP service packs
- Check Automatic Updates Tab in the System Properties window to see how Windows Update is configured

Do a Quick Physical (continued)

- Note amount of free hard drive space
- Note size of hard drive using Windows Disk Management
- Note background processes in the system tray
- Identify open applications using Task Manager
- Identify running services using the Processes tab in Task Manager

Determine Amount of Free Hard Drive Space



Figure 1-4 Use Windows Explorer to find out how much free space is on drive C

System Tray and Process Icons



Figure 1-6 Expand the system tray to see all the icons



Figure 1-7 The system tray shows icons that represent running background processes

Five Steps to Making Windows Young Again

1. Reduce startup process to bare bones by running System Configuration Utility (Msconfig.exe)
2. Clean up hard drive
3. Uninstall any applications using Add or Remove Programs in Control Panel
4. Run antivirus software, anti-adware, and/or anti-spyware software
5. Download and install Windows XP updates, patches, and service packs

Reduce Startup to Essentials

- Disable all nonessential startup tasks on the Startup tab
- Disable all nonessential Windows services on the Services tab
- Check Hide All Microsoft Services to view services by third-party software
- Click Apply and view General tab
- Reboot and watch for error messages

System Configuration Utility (Msconfig)

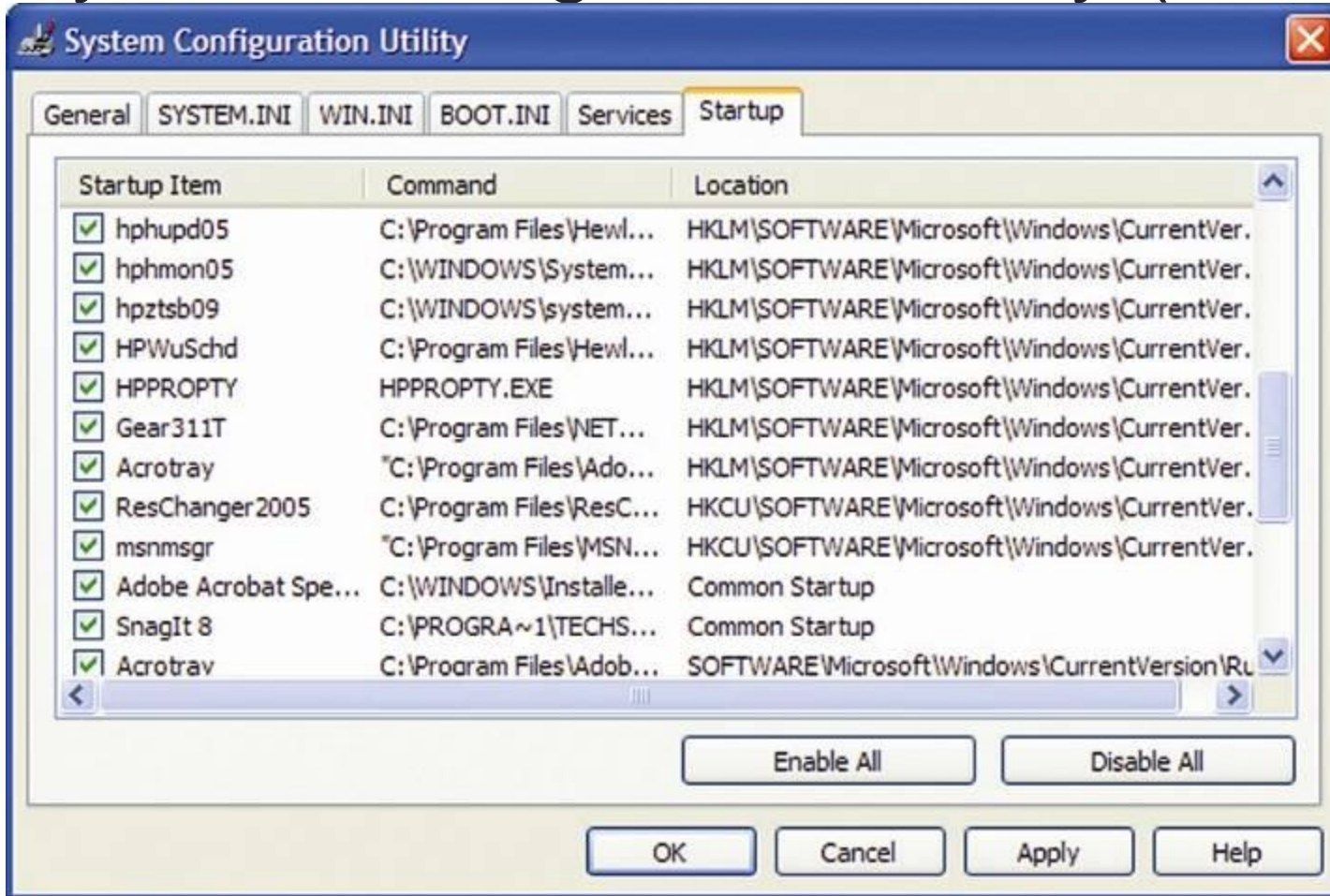


Figure 1-11 Use the System Configuration Utility (Msconfig) to temporarily disable a startup task
Fixing Windows XP

Msconfig Set to Control Windows Startup

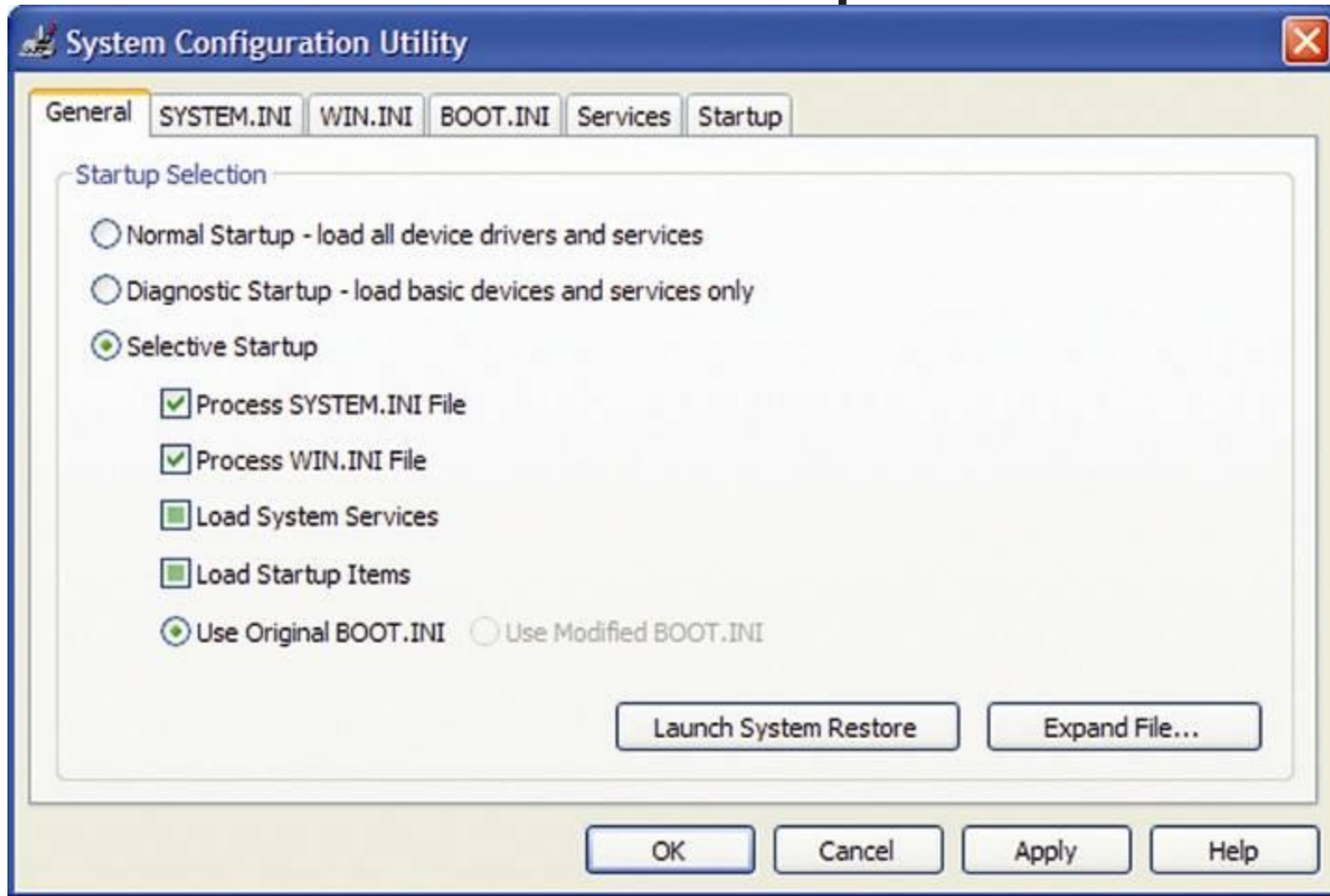


Figure 1-13 Msconfig is set to control the Windows startup process
Fixing Windows XP

Clean Up the Hard Drive

- Delete unwanted files – including those in the Recycle Bin
 - Use Disk Cleanup available through Explorer Properties
- Defragment hard drive
 - Click Start, All Programs, Accessories, System Tools
 - Click Disk Defragmenter

Defragmenting a Volume

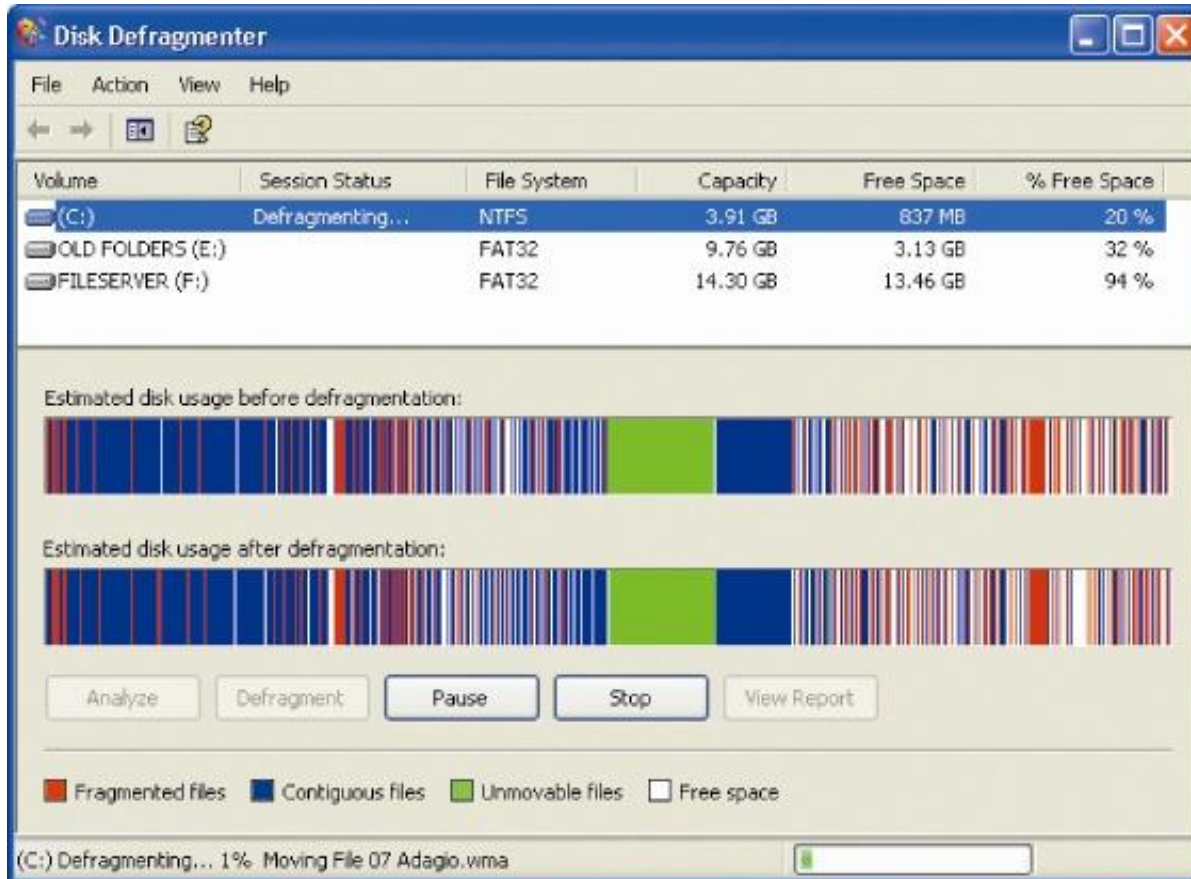


Figure 1-16 Windows XP as it is defragmenting a volume

Clean Up the Hard Drive (continued)

- Scan for errors
 - Use Windows Chkdsk utility to:
 - Check for and fix file system errors
 - Search out bad sectors
 - Recover the data from them, if possible

Clean Up the Hard Drive (continued)

- To free up additional hard drive space
 - Remove unwanted software
 - Move some data to other drives or devices
 - Compress folders on the drive to save space if volume is formatted using the NTFS file system
 - Consider installing a second hard drive
 - Move some data or applications to another partition if other partitions are available
 - Enlarge the Windows partition

Compress Folders or Files

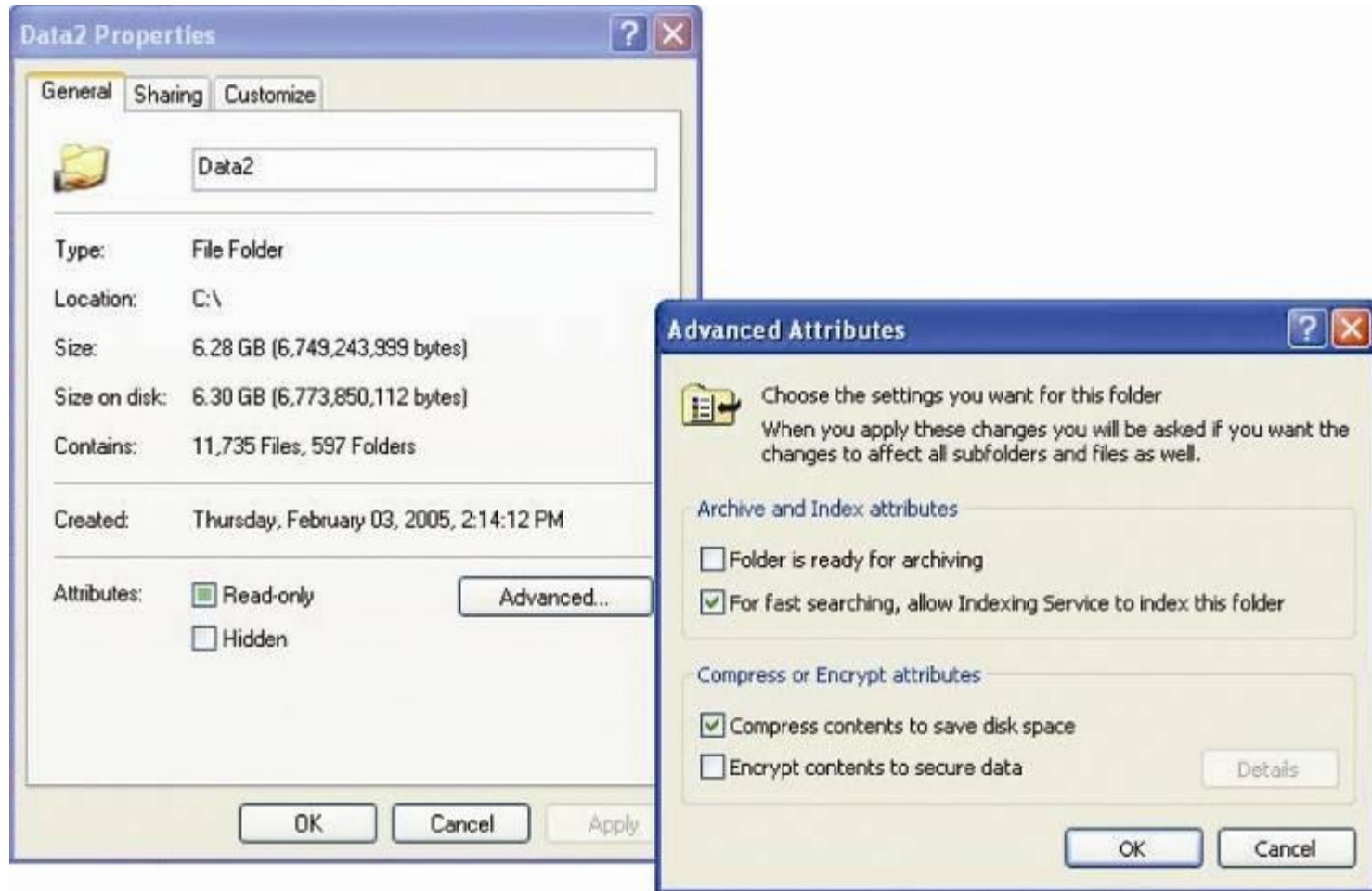


Figure 1-19 Compress folders or files to save disk space

Clean Up the Hard Drive (continued)

- To save space on the primary Windows partition
 - Reduce space Internet Explorer uses to cache files
 - Move Internet Explorer cache folder to a second partition
 - Set IE to empty the cache folder each time browser is closed

Move IE Cache Folder

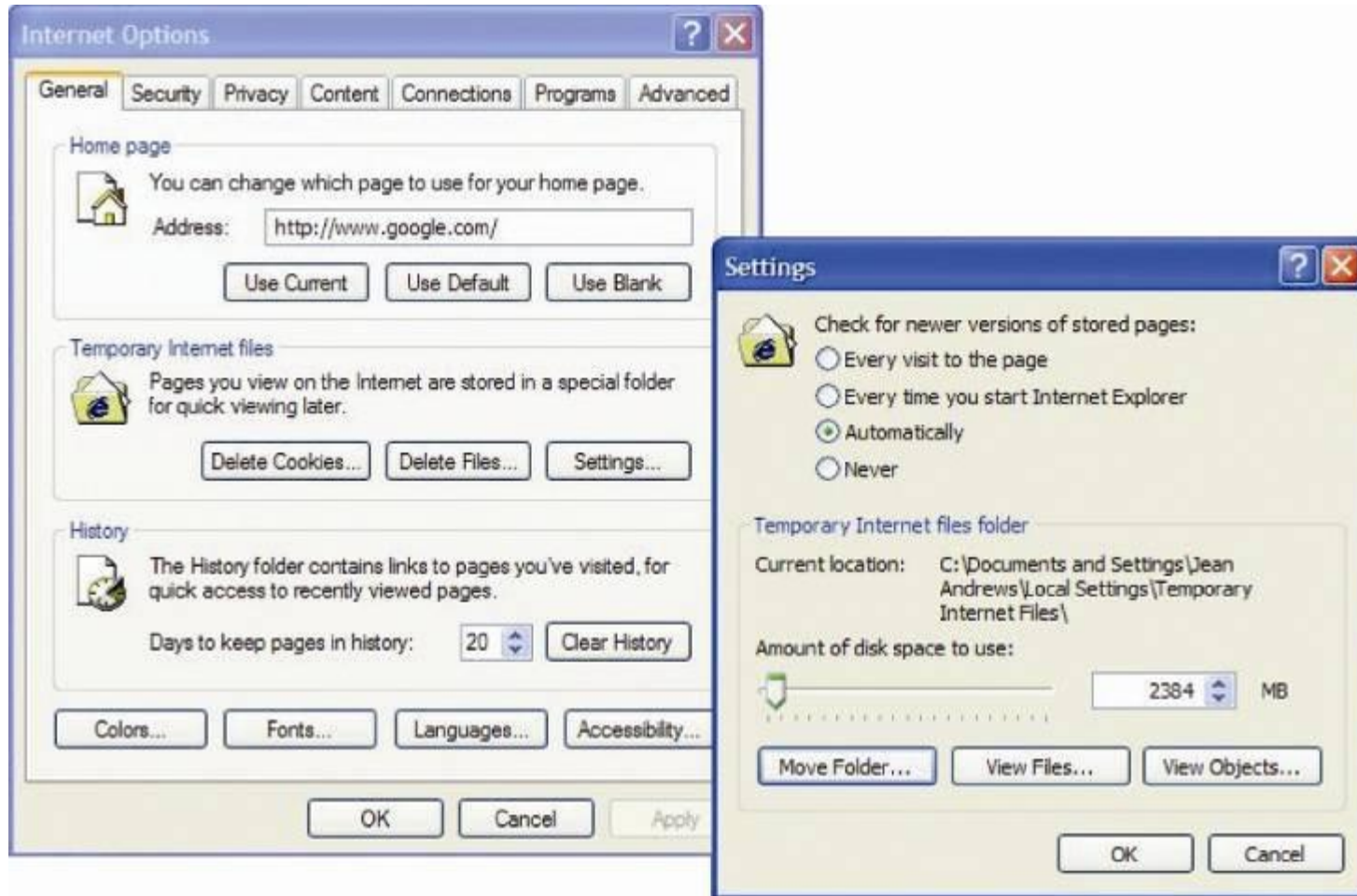


Figure 1-21 Use the Internet Options window to move the IE cache folder

Not Keeping IE Cache



Figure 1-22 Set Internet Explorer not to keep a cache after the browser is closed

Remove Unwanted Software

- Look at far-right column of Add or Remove Programs in the Control Panel to see how much space each application is using
- Before removing software check to make sure you won't need it later
- Note that attempting to remove stubborn software can pull down the Windows Firewall
- Uninstall device drivers no longer in use
- Update older device drivers with newer versions

Scan the System for Viruses, Adware, and Spyware

- Scan the system for viruses:
 - Run antivirus software on entire hard drive
 - Set antivirus software to run in the background
 - Set antivirus software to automatically keep updates current

Automatic Update of Antivirus Software

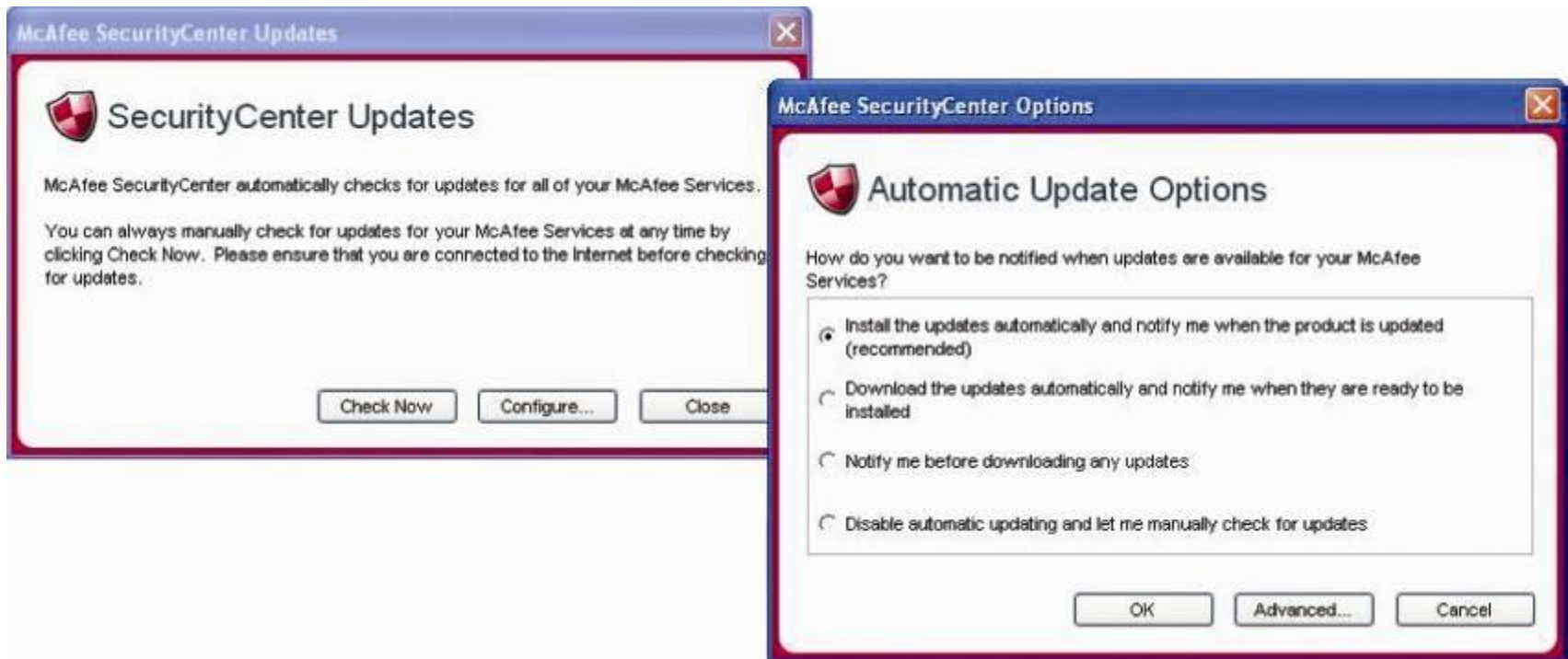


Figure 1-25 Set your antivirus software to stay updated automatically

Scan the System for Viruses, Adware, and Spyware (continued)

- Scan for Adware and spyware:
 - Ad-Aware by Lavasoft (www.lavasoft.com)
 - Spybot Search and Destroy by PepiMK Software (www.pepimk.com)
 - Windows Defender by Microsoft (www.microsoft.com)

Update Windows

- Keep patches, fixes, and updates current
- Connect to the Internet, click Start, point to All Programs, click Windows Update
 - Note that Windows Update uses ActiveX controls
- Windows XP Service Pack 2 (SP2) includes Windows Firewall and Internet Explorer Pop-up Blocker

Installing Updates to Windows XP

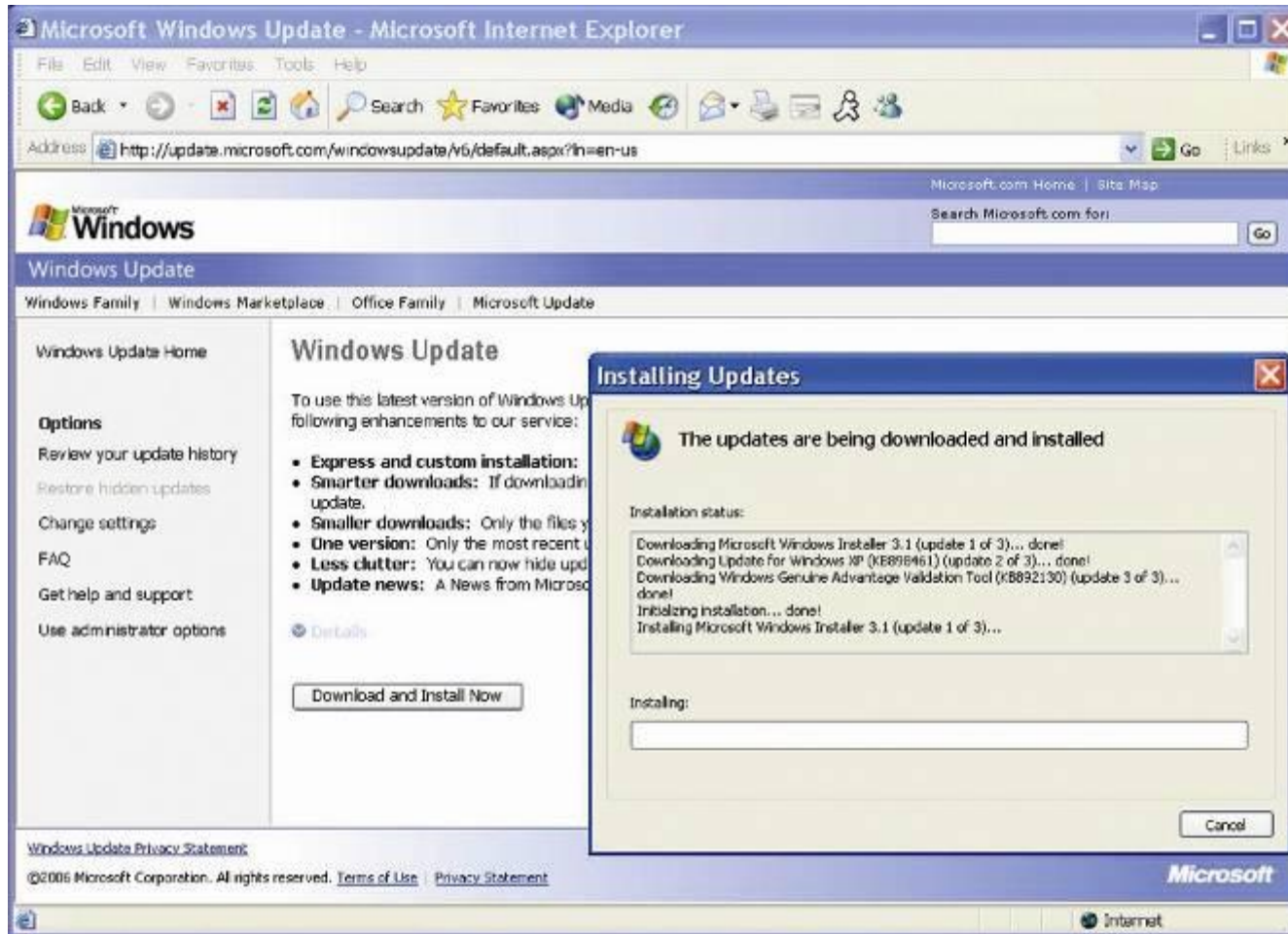


Figure 1-28 Installing updates to Windows XP

Automatic Updates

- Set the system so that it will automatically stay current
 - Click Start, right-click My Computer, click Properties
 - Click Automatic Updates tab in the System Properties window
 - Select Automatic (recommended)

Set Automatic Updates



Figure 1-30 Set Automatic Updates for automatic and daily updating

One Last Check

- Reboot and check for errors
- Use System File Check (Sfc.exe) to scan installation for corrupted or missing system files

Keeping Windows Fit

- Prevent problems from happening:
 - Backup data
 - Keep Windows updates current
 - Know and practice defensive measures when using the Internet
 - Clean up hard drive on a regular basis
 - Don't download and install freeware from untrustworthy sites
 - Don't smoke around your computer

Keeping Windows Fit (continued)

- Prevent problems from happening (continued):
 - Don't jar or move computer case while the PC is on
 - Protect your CDs and DVDs
 - Use a surge protector and adequate grounding
 - Install startup and registry monitor such as WinPatrol by BillP Studios (www.winpatrol.com)
 - Configure Windows and AV software so firewall is up and updates are kept current

What to Expect from the Rest of this Book

- So far in Chapter 1:
 - How to solve common Windows XP problem caused by poor maintenance
 - Solved the problem of a sluggish Windows system
 - What must happen to keep Windows fit
- In the rest of the book, will use same approach:
 - See how to fix a problem
 - See how to keep it from coming back

How to Approach a Windows Problem

- Process begins by asking questions
- Take appropriate action
- Evaluate result
- Take notes

How to Approach a Windows Problem (continued)

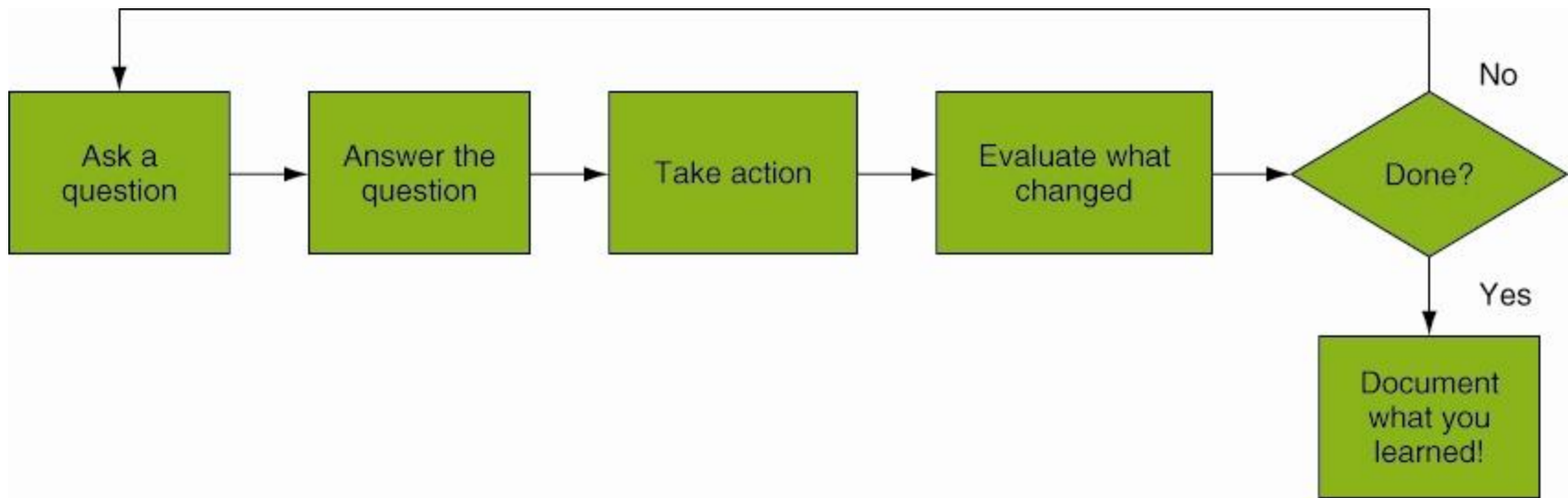


Figure 1-32 Learn to be an effective problem solver

Ask Yourself or the User Some Questions

- First find out if there's valuable data on the PC that's not backed up
- Determine if problem:
 - Prevents the PC from booting
 - Occurs after a successful boot
- Ask questions, e.g.,
 - Describe the problem
 - When did the problem start?
 - What was the situation when the problem occurred?
 - What programs or software were you using?
 - Did you move your computer system recently?

Ask Yourself or the User Some Questions (continued)

- Ask questions (continued)
 - Has there been a recent thunderstorm or electrical problem?
 - Have you made any hardware, software, or configuration changes?
 - Has someone else used your computer recently?
 - Is there some valuable data on your system that is not backed up that I should know about before I start working on the problem?
 - Can you show me exactly how to reproduce the problem?

Protect the Data

- Back up data as soon as possible
- Let user decide to take a risk
- Begin troubleshooting after data is safe

Tips When Problem Solving

- Keep a pad and pencil handy
- Start troubleshooting with a reboot
- As you attempt to solve the problem, first reproduce the problem and learn what you can as you go
- Note if problem occurs during the boot
- Note if problem is hardware or software related

Tips When Problem Solving (continued)

- Note if problem occurs with hardware before OS load begins
- Note if problem related to loading OS
- Reboot between fixes
- Use Internet for research
- Test fix and system

Tools of the Trade

- Internet (see resources on the Web in Appendix A)
- Windows XP utility tools
- A third-party utility – software not written by Microsoft
 - Shareware (download and try before you buy)
 - Freeware (download for free or with a donation)
 - Software that runs in the background
 - Software used by a technician to examine a system and manually fix a problem
- This book

Top Eight Windows Problems

1. My Windows system is sluggish and slow.
2. When I start up Windows, it's slow and clunky, and I see strange messages.
3. I'm under attack! Nasty software has attacked my system!
4. I need better security for my computer or small network, but I don't know how to get it.

Top Eight Windows Problems (continued)

5. I can't connect using wireless or wired networks.
6. I think I might need to upgrade my system.
7. My applications or devices give errors, won't work, won't install, or won't uninstall.
8. Windows won't start up at all. I have data in there somewhere!

Summary

- A sluggish Windows system most likely caused by:
 - Too many applications and services loading at startup
 - Too little free hard drive space
 - Fragmented hard drive
 - Not enough memory or powerful enough processor
- Before trying to fix a Windows problem, examine system

Summary (continued)

- First use System Configuration Utility
- Clean up the hard drive
- Keep Windows current:
 - Updates
 - Patches
 - Use firewall and antivirus software

Summary (continued)

- When solving a Windows problem, interview user and protect any important data
- Classify problem:
 - Occurs during the boot
 - Occurs after Windows desktop is loaded
- Key troubleshooting tools:
 - Internet for research
 - Windows tools
 - Third-party tools
 - This book