**Detailed Content**

### Spreadsheets
- Features 92
- Case 92

### Database Management Systems
- Features 98
- Case 100

### Presentation Graphics
- Features 102
- Case 103

### Integrated Packages
- Case 106

### Software Suites
- 106

### Sharing Data between Applications
- Copy and Paste 108
- Object Linking and Embedding 108

### Careers in IT: Computer Trainer
- 110

### A Look to the Future: Web-based Application

### Software Updates Ease Maintenance
- 111

---

### Specialized Application Software
- 126

#### Specialized Applications
- 128

#### Graphics
- Desktop Publishing 129
- Image Editors 130
- Illustration Programs 130
- Image Galleries 131
- Graphics Suites 132

#### Audio and Video
- 133

#### Multimedia
- Links and Buttons 135
- Developing Multimedia Presentations 135
- Multimedia Authoring Programs 137

#### Web Authoring
- 137
  - Web Site Design 137

### Making IT Work for You: Personal Web Sites
- 138

#### Web Authoring Programs
- 140

### Personal Applications
- 141

#### Personal Information Managers
- 142

#### Personal Finance Managers
- 143

#### Personal Tax Preparation
- 143

### Emerging Applications
- Virtual Reality 144
- Knowledge-based (Expert) Systems 145
- Robotics 146

### Careers in IT: Desktop Publisher
- 147

---

### System Software
- 166

#### Operating Systems
- Functions 167
- Features 168
- Categories 172
- Windows 174
- Mac OS 176
- UNIX and Linux 177
- VSE/ESA and z/OS 178
- Palm OS and Windows CE 178

#### Utilities
- 179
  - Windows Utilities 179
  - Utility Suites 184

#### Making IT Work for You: Virus Protection
- 186

#### Device Drivers
- 189

#### Careers in IT: Computer Support Specialist
- 191

### A Look to the Future: IBM Builds an Aware Supercomputer
- 192

---

### The System Unit
- 208

#### System Unit
- 210

#### Electronic Data and Instructions
- Binary Coding Schemes 212

#### System Board
- 215

#### Microprocessor
- Instruction Cycles 217
- Microprocessor Chips 217
- Specialty Processors 218

#### Memory
- 220
  - RAM 220
  - ROM 222
  - CMOS 222
SECONDARY STORAGE 320

Storage 322
Floppy Disks 323
  Traditional Floppy Disk 324
  High Capacity Floppy Disks 326
Hard Disks 327
  Internal Hard Disk 328
  Hard-Disk Cartridges 328
  Hard-Disk Packs 330
  Performance Enhancements 330
Optical Disks 333
  Compact Disc 333
  Digital Versatile Disc 335
  DataPlay 337
Making IT Work for You:
  Music from the Internet 338
Other Types of Secondary Storage 340
  Solid-State Storage 340
  Internet Hard Drives 341
  Magnetic Tape 341
  Microfilm and Microfiche 342
Secondary Storage for Portable
Computers 343
Mass Storage Devices 344
Careers in IT: Software Engineer 346
A Look to the Future: Blu-Ray Technology
Expected to Replace DVD 347

Visual Summary 348
Key Terms 352
Chapter Review 353
Using Technology 356
Expanding Your Knowledge 358
Building Your Portfolio 360

10 COMMUNICATIONS AND NETWORKS 362

Communications 364
Connectivity 364
  The Wireless Revolution 364
  Communication Systems 365
Communication Channels 366
  Physical Connections 367
  Wireless Connections 367
Connection Devices 369
  Modems 370
  Types of Connections 370
Data Transmission 371
  Bandwidth 371

Data Flow 372
Data Direction 372
Protocols 373
Networks 374
  Terms 374
Network Types 376
  Local Area Networks 376
  Home Networks 377
  Metropolitan Area Networks 377
  Wide Area Networks 377
Making IT Work for You: Home Networking 380
Network Architecture 382
  Configurations 382
  Strategies 384
Organizational Internets: Intranets and Extranets 388
  Intranets 388
  Extranets 388
  Firewalls 389
Careers in IT: Network Administrator 390
A Look to the Future: Toyota and Sony Create Wireless Robotic Car 391

Visual Summary 392
Key Terms 396
Chapter Review 397
Using Technology 400
Expanding Your Knowledge 402
Building Your Portfolio 404

11 PRIVACY AND SECURITY 406

People 408
Privacy 409
  Large Databases 410
  Private Networks 412
  The Internet and the Web 412
  Major Laws on Privacy 417
Making IT Work for You: Spyware Removal 418
Security 421
  Threats to Computer Security 421
  Computer Criminals 421
  Computer Crime 422
  Other Hazards 425
  Measures to Protect Computer Security 426
  Encrypting Messages 426
  Restricting Access 427
  Anticipating Disasters 428
  Backing Up Data 428
Ergonomics 429
  Physical Health 429
  Mental Health 431
  Design 431
Detailed Content