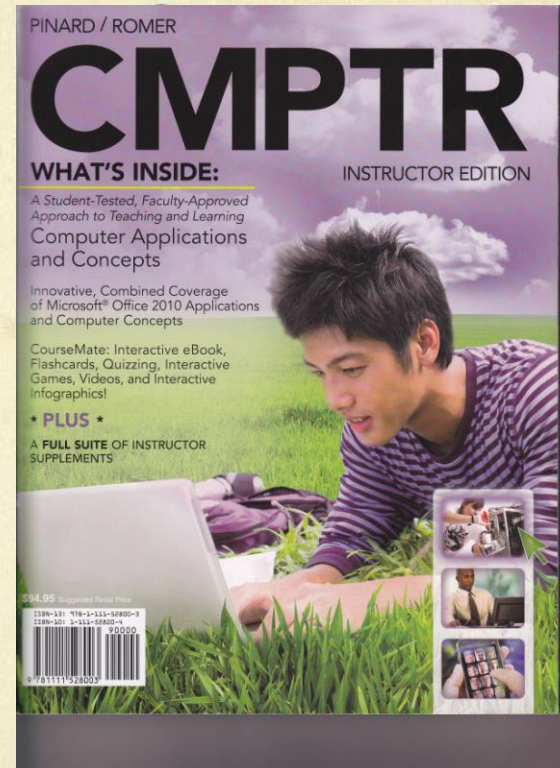


Chapter 1

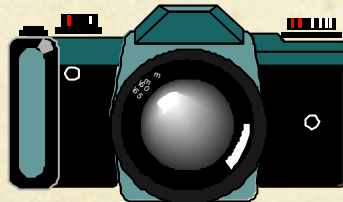
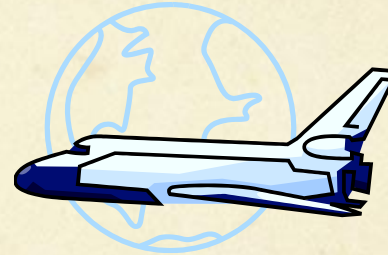
Introduction to Computers

Chapter 3

Computer Software



As we discussed in the last class,,
computers are everywhere.

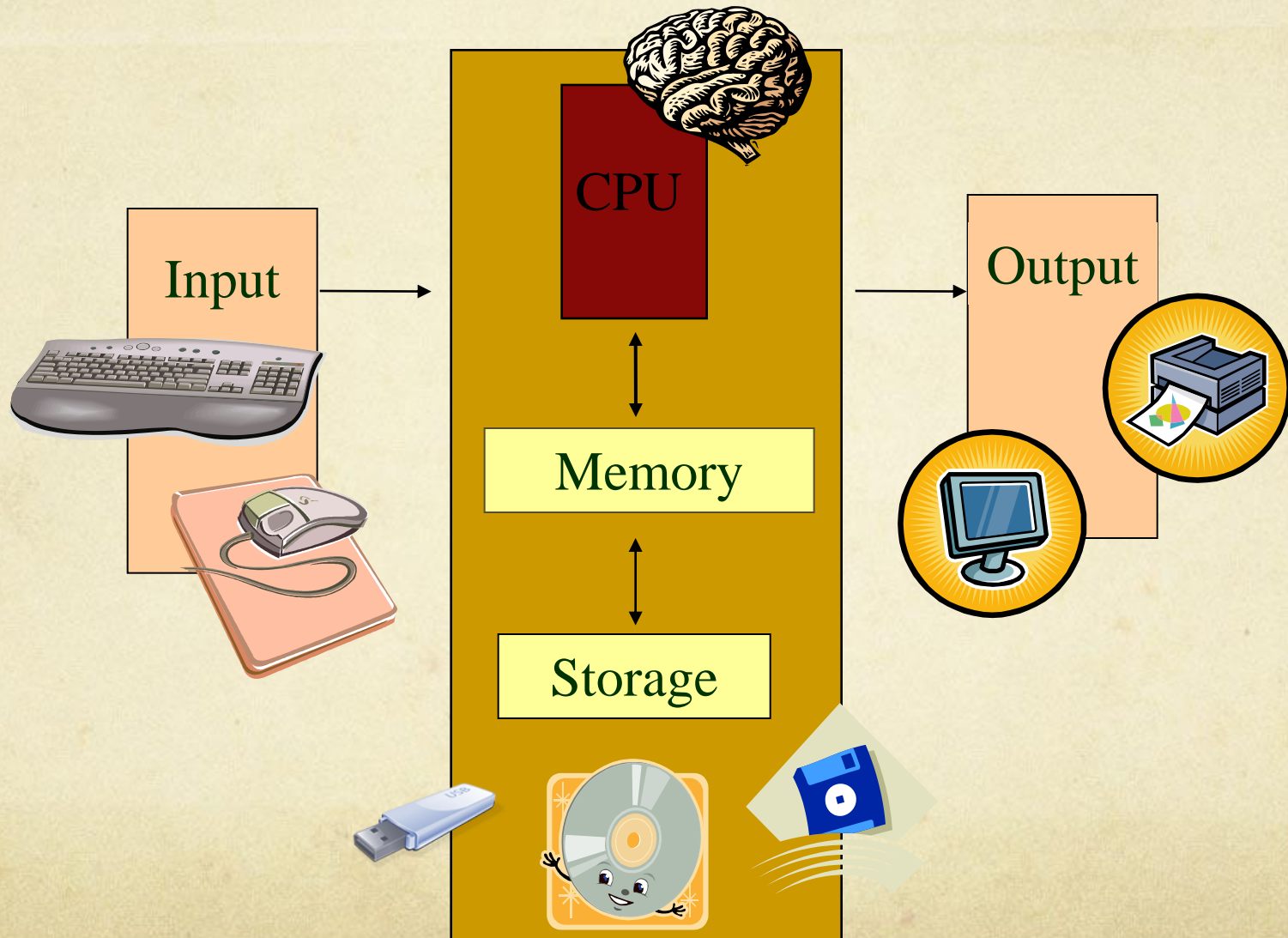


So it is important to be computer literate.

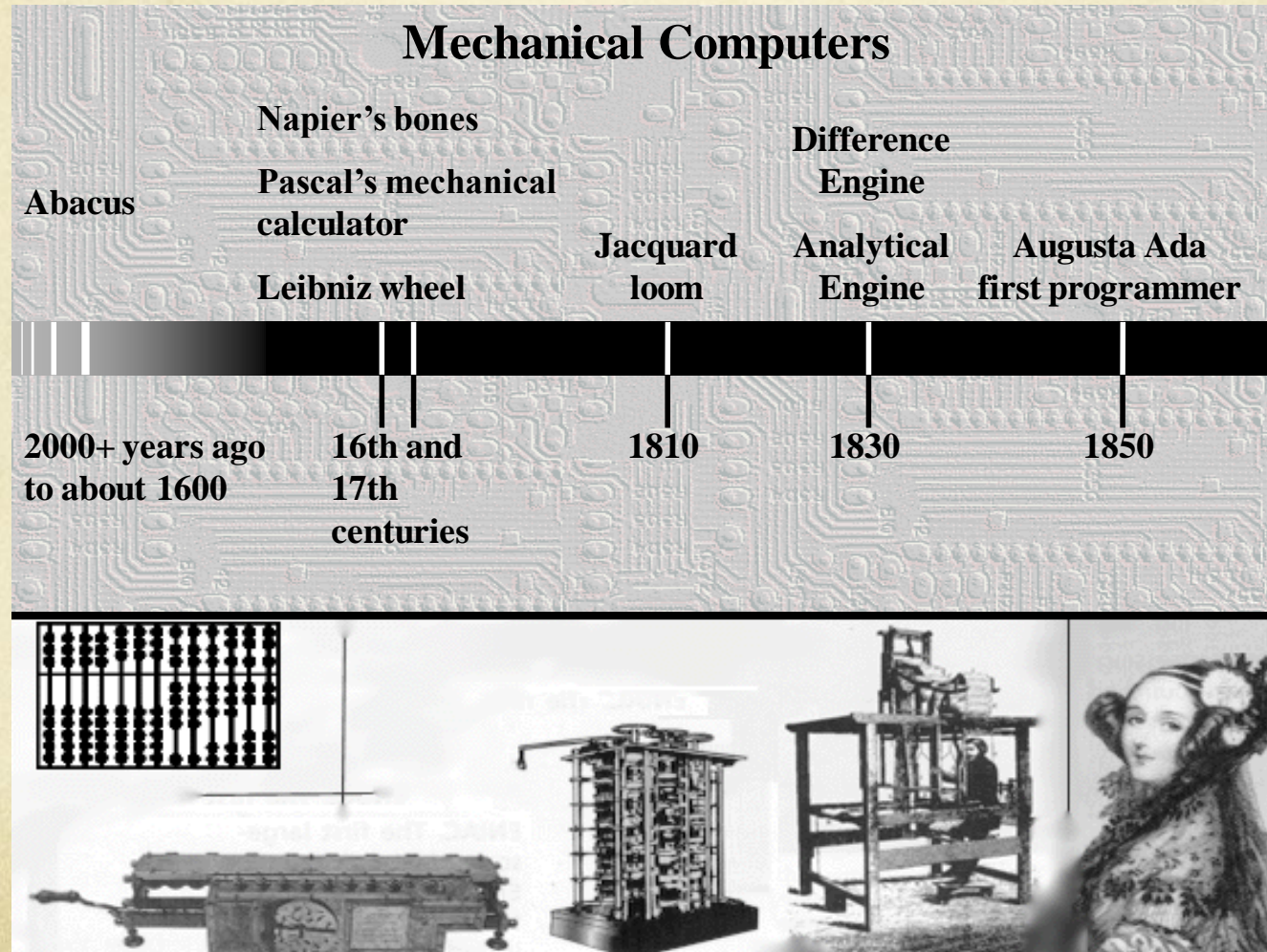
What is a computer? What does it do?

- Computer – programmable electronic device that accepts data, performs operations on that data, presents the results, and stores the data and/or results as needed.
- Four Primary Operations of a computer: IPOS
 - Input data (data VS information)
 - Process data
 - Output results
 - Storage: data/instructions (programs)/ results
- What is the difference between Data and Information?

Computer architecture



Computer History – page 8 in CMPTR book presentation in Instructor Folder on ECC intranet



Discussion

How do we use computers today?

- Education
- Finance
- Government
- Health care
- Science
- Publishing
- Travel
- Manufacturing



Discussion

- What are the advantages of using a computer?



- What are the disadvantages of using a computer?

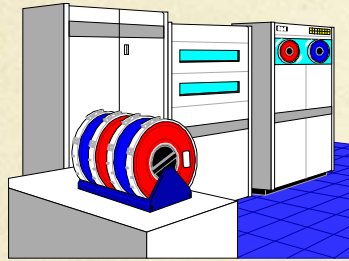
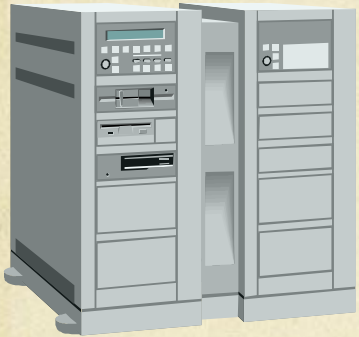
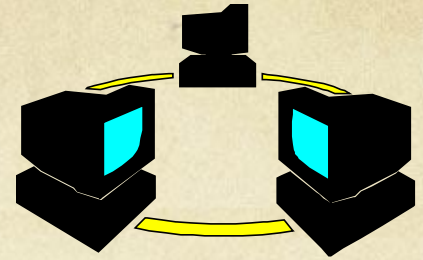


Benefits of Computers



- Speed
- Reliability
- Consistency
- Storage of huge amounts of data
- Sharing information / Communication

Types of Computers



○ embedded

○ mobile

○ PC

○ desktop

○ laptop

○ tablet



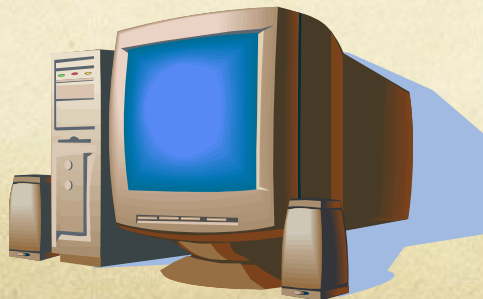
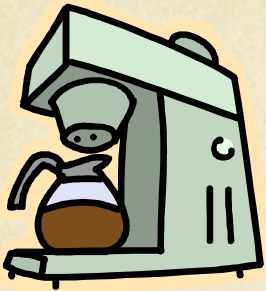
○ Terminal

○ Server

○ Mainframe

○ Super Computer

○ What is “cloud computing”

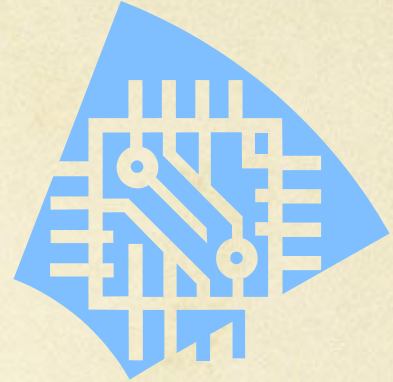


Computer Hardware

covered later in Chapter 2

- Internal
 - CPU
 - Memory
 - Expansion (adapter) cards
 - Hard drive

- External
 - Peripheral – a device attached to a host computer, but not part of it, and more or less dependent on the host. It expands the host's capabilities, but does not form a part of the core computer architecture. - Wikipedia



Software – Chapter 3

System Software – programs that control or maintain the computer operation and devices

- Operating System (OS) – set of programs containing instructions that coordinate all of the activities among the computer hardware resources
- Utility program – performs maintenance type tasks managing the computer, its devices or its programs.

Two parts to the OS

Kernel -main part of the OS that defines the basic functionality, is responsible for:

- Start- up
- Managing memory, files and devices
- Starting applications
- Assigning resources

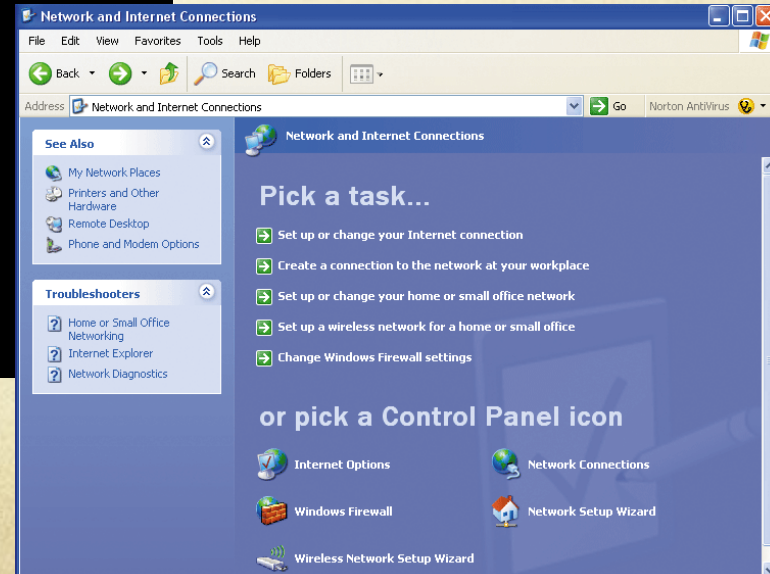
User Interface - allows the user to communicate with the computer

User Interface

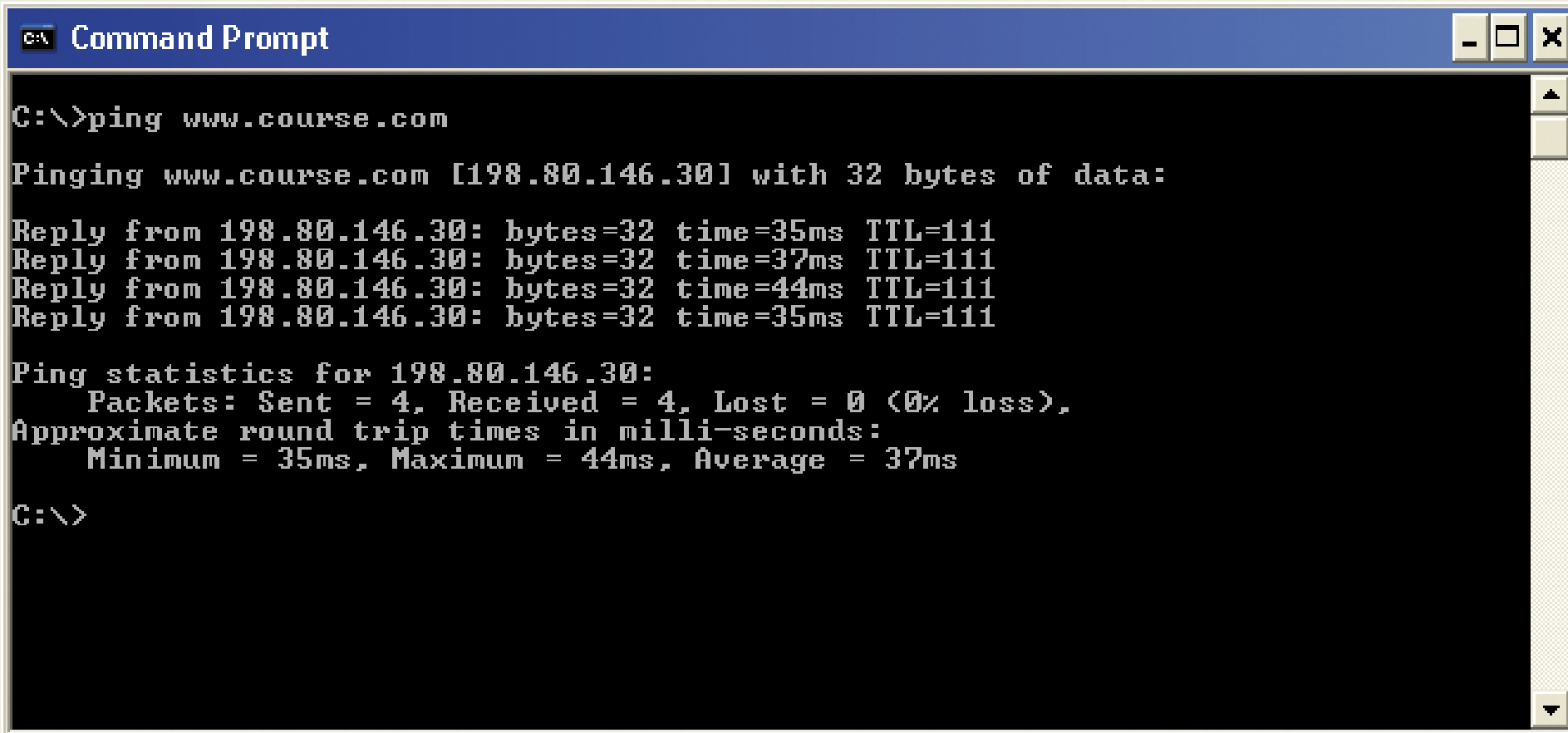
- Command line
- Menu driven
- Graphic User Interface (GUI)

```
C:\>fprvadm
Please enter command:
0) quit
1) install
2) upgrade
3) uninstall
4) check and fix
5) enable authoring
6) disable authoring
7) change security settings
8) recalculate links
9) delete
10) rename
11) set directory executable

c:\ Command Prompt
C:\>ping www.course.com
Pinging www.course.com [198.80.146.30] with 32 bytes of data:
Reply from 198.80.146.30: bytes=32 time=35ms TTL=111
Reply from 198.80.146.30: bytes=32 time=37ms TTL=111
Reply from 198.80.146.30: bytes=32 time=44ms TTL=111
Reply from 198.80.146.30: bytes=32 time=35ms TTL=111
Ping statistics for 198.80.146.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 35ms, Maximum = 44ms, Average = 37ms
C:\>
```



Command Prompt



```
C:\> Command Prompt
C:\>ping www.course.com

Pinging www.course.com [198.80.146.30] with 32 bytes of data:

Reply from 198.80.146.30: bytes=32 time=35ms TTL=111
Reply from 198.80.146.30: bytes=32 time=37ms TTL=111
Reply from 198.80.146.30: bytes=32 time=44ms TTL=111
Reply from 198.80.146.30: bytes=32 time=35ms TTL=111

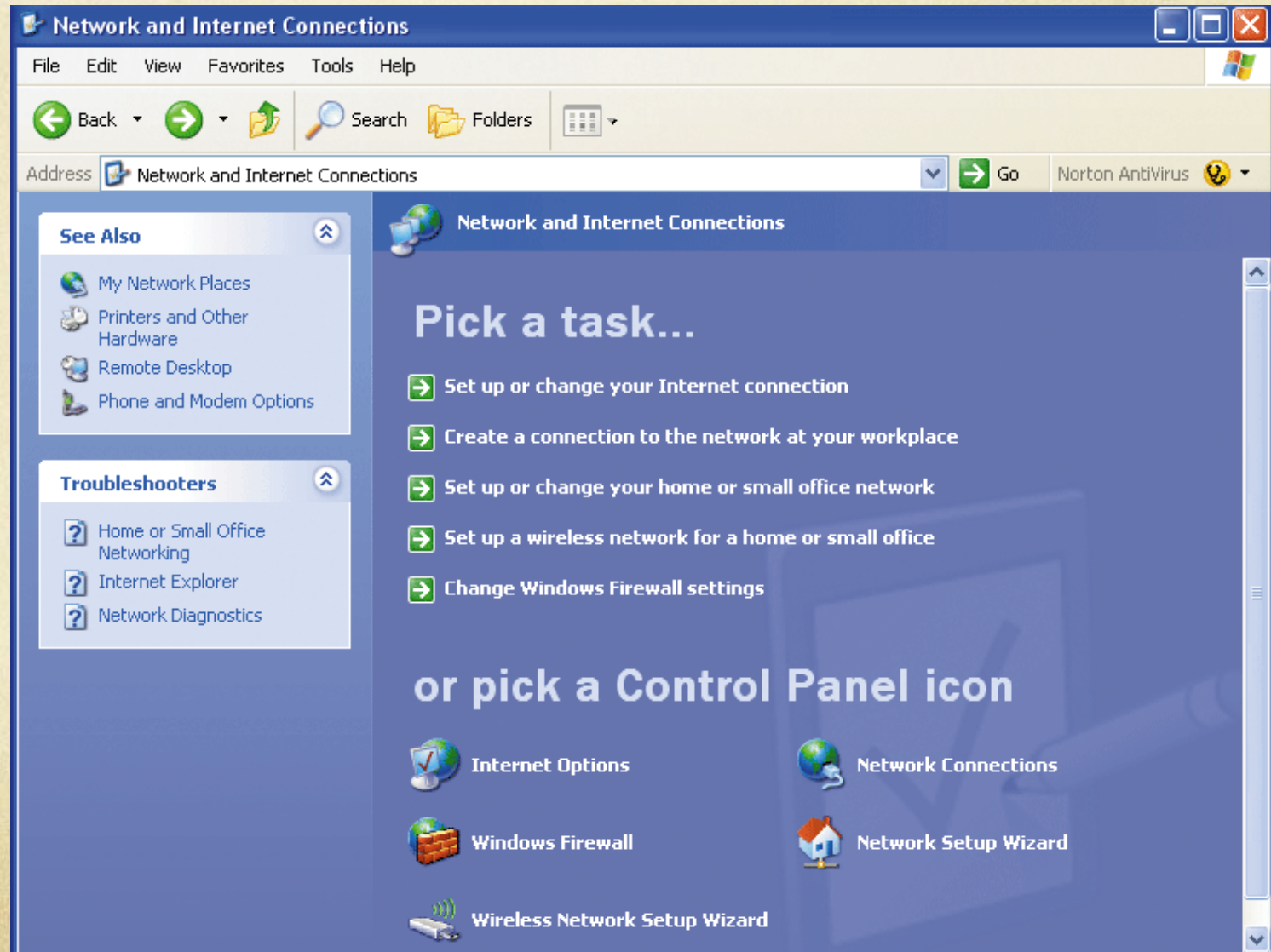
Ping statistics for 198.80.146.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 35ms, Maximum = 44ms, Average = 37ms

C:\>
```

Menu Driven

```
C:\>fprvadm
Please enter command:
0) quit
1) install
2) upgrade
3) uninstall
4) check and fix
5) enable authoring
6) disable authoring
7) change security settings
8) recalculate links
9) delete
10) rename
11) set directory executable
12) set directory no executable
13) putfile
14) recalcfiler
15) create a subweb
16) merge a subweb into its parent web
17) full uninstall of all FrontPage information
Your choice [1]: _
```

Graphic User Interface (GUI)

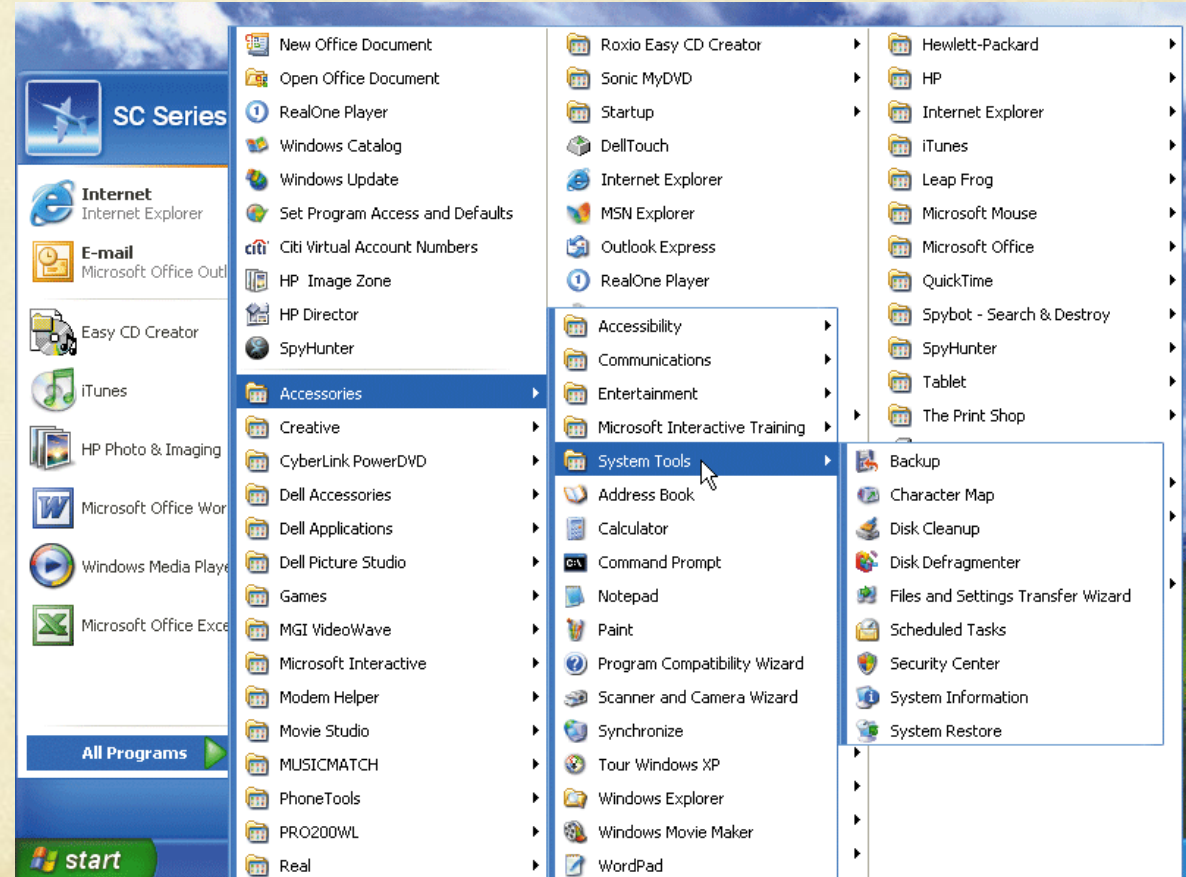


The OS Functions

- Starting the computer
- Configuring devices
- Scheduling jobs
- Managing resources
- Establishing internet connections
- Monitoring performance
- Providing management utilities
- Control a network and administer security (server)

Utility Programs

- Image viewer
- File management
- Diagnostic utility
- Uninstaller
- Disk Scanner
- Disk defragmenter
- Backup utility
- Screen saver
- Firewall



Software Distribution



- Packaged Software ©
- Custom Software \$\$\$
- Shareware ©
- Freeware ©
- Public Domain

Open Source



Open-source software (OSS) is computer software with its source code made available and licensed with an open-source license in which the copyright holder provides the rights to study, change and distribute the software for free to anyone and for any purpose. ~ Wikipedia

For more information, go to: <http://opensource.org>

A **Portable application** is a program designed to run on a storage device.

Make Sure You Can

(Chapter 1)

- Recognize the importance of computer literacy
- Define the term computer
- Identify the four primary operations of a computer
- Describe the difference between data and information
- Define the terms hardware and software
- Recognize the various types of computers
- Explain “cloud computing”
- Explain why a computer is a powerful tool
- Discuss the advantages and disadvantages of using computers
- Explain how computers impact our society

Make Sure You Can

(Chapter 3)

- Explain the difference between system software and application software
- Describe the functions of an operating system
- Describe the following operating systems and identify the devices that use them:
 - Embedded
 - Mobile
 - Personal
 - Network
- Describe the three different types of user interface
- Explain the purpose of the utilities included with most operating systems
- Explain the differences between custom software, commercial software, freeware, shareware and public domain software
- Explain what open source software is
- Explain what a portable application is

Homework

In-Class: Understanding the difference between text editors and word processors:

1. Go to the schedule page on the Class Website
2. Click on the link for “Chapter 1&3 Key Terms” in the On-Your-Own column
3. Use CTRL A to select everything, then use CTRL C to copy it to the clipboard
4. Open Notepad (found under Accessories) and paste the key terms
5. Open WordPad (found under Accessories) and paste the key terms
6. What differences do you see between the two documents?

On-Your-Own:

- Define the Key Terms in Chapters 1 & 3. Save the definitions in your portfolio.
- Take the first quiz covering the Introduction and Software chapters on D2L.
- Read through Chapters 10 – 12 on Microsoft Word. Practice any unfamiliar skills.