



1.2 Computer Basics

Learning Goals

- Describe why computers are important.
- Explain how computers work
- Explain the difference between computer hardware and computer software.
- Describe what an operating system is.

Learning Goals

- Identify the operating system you have on your own computer and phone.
- Define office productivity and communications software.
- Turn on and log in to a computer.
- Identify parts of the computer desktop.

Importance

Why is it important to learn how to use a computer?

What is a Computer?

An electronic device that:

- accepts data (input),
- manipulates the data (process),
- provides output (output) and
- stores the results (storage).

Input Devices

The user must provide the data through an input device such as:



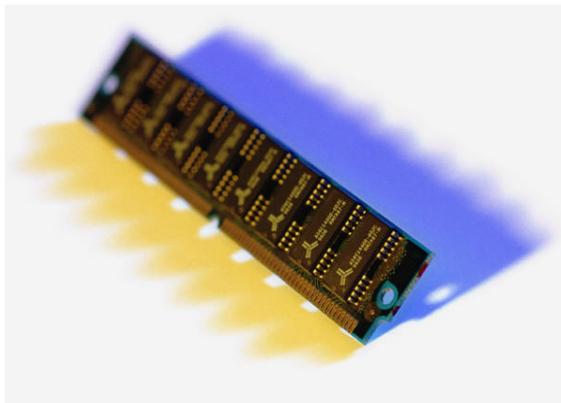
Processing Data

Once the user provides the computer with data, he/she must tell the computer what to do with the data. The central processing unit performs the tasks the user tells it to do.



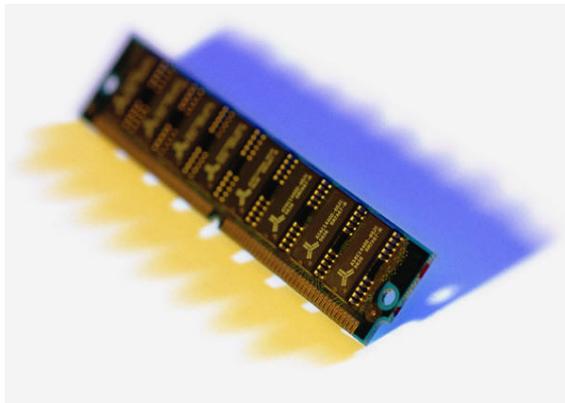
Data in Memory

Many people use the terms memory and storage interchangeably. However, they are not the same thing.



Data in Memory

Memory is a temporary holding space for data while it is being used by the user.

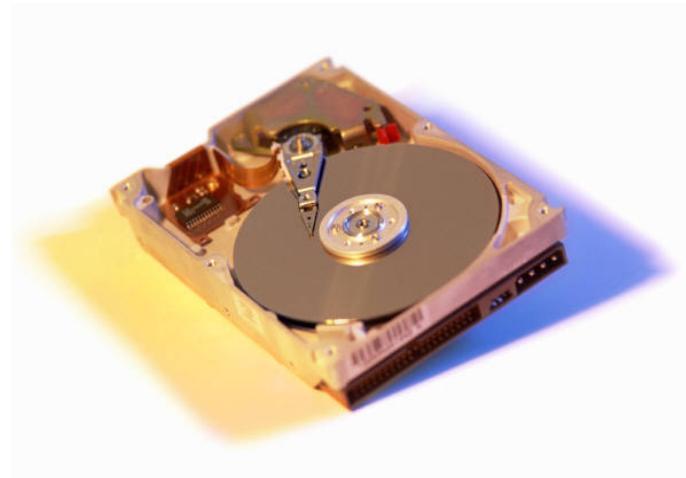


Data in Memory

Example: This presentation has been saved to “storage,” but we are viewing it through the computer’s memory. If I make a change to it and do not save it to “storage” again, the changes will be lost.

Storing Data

The computer user can store data so that he or she may access it again.



Storing Data

Primary storage consists of the hard drive which is located inside of the desktop or laptop computer.

Advantages



Disadvantages

Storing Data

Secondary storage consists of any storage medium located outside of the desktop or laptop computer.

Advantages



Disadvantages

Storing Data



Google docs

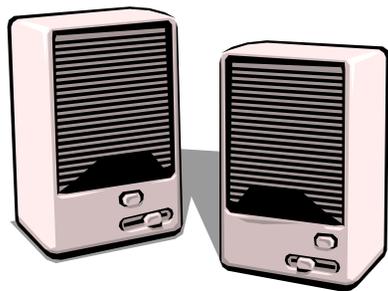
Advantages

Disadvantages

Output Devices

The computer user can also instruct the computer to provide output.

A few examples of output devices are:



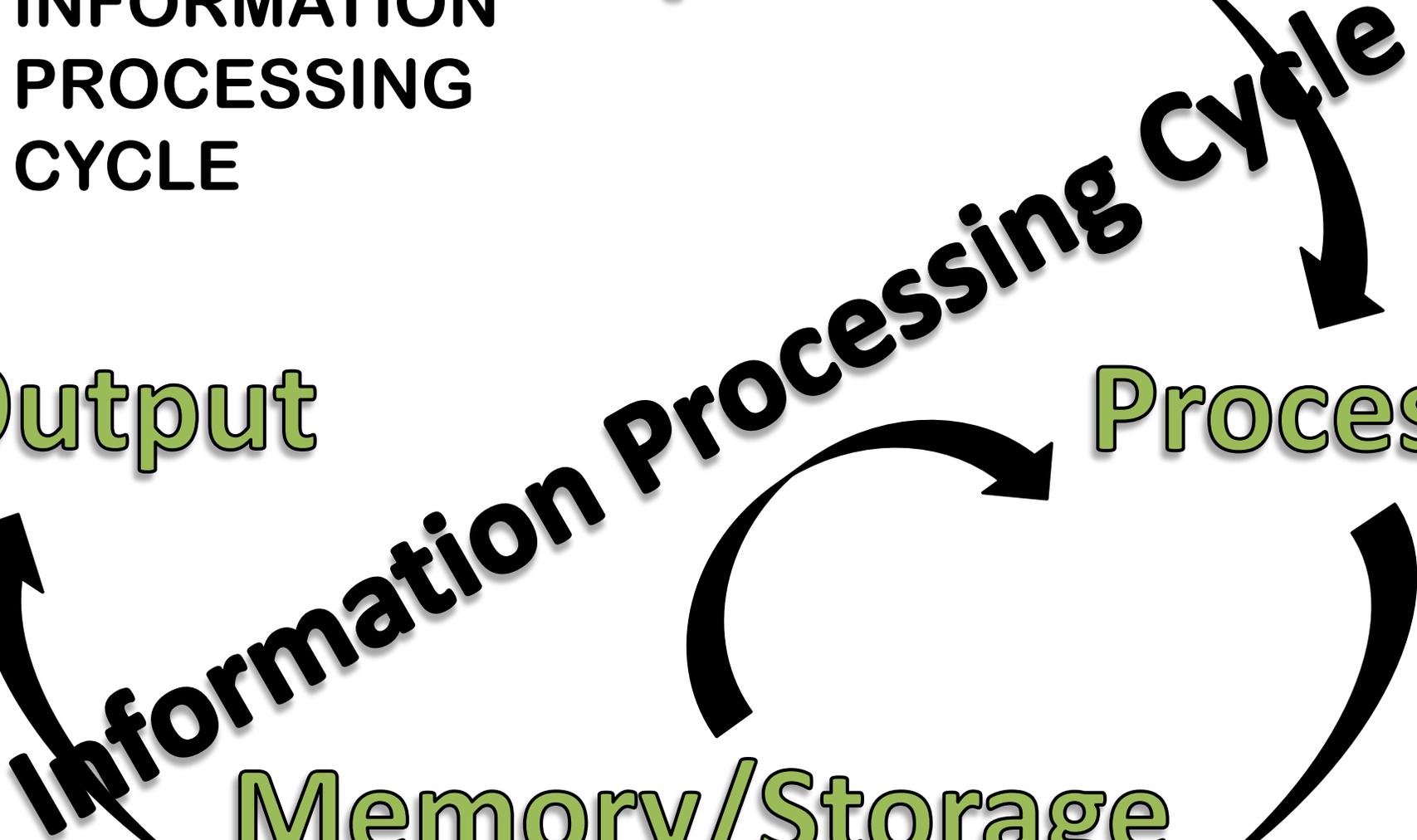
REVIEW
INFORMATION
PROCESSING
CYCLE

Input

Output

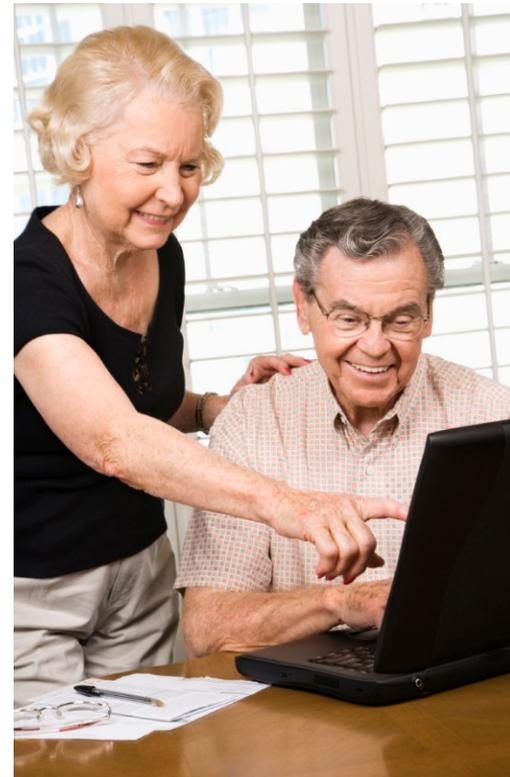
Process

Memory/Storage



Why Use a Computer

- Speed
- Accuracy
- Reliability



Computer Programs

A computer program is a collection of step-by-step instructions that tell the computer how to perform a particular task or group of related tasks.



Software

There are two general types of software.

- System software &
- Application software



System Software

System software generally comes preinstalled on your computer and you will, quite often, not even realize that you are interacting with it.

- Operating Systems
- Device Drivers



Operating Systems

The two operating systems most users encounter are Microsoft Windows and Mac OS X.

Operating systems contain the instructions that allow the parts of a computer to work together by performing most, if not all, of the “behind the scenes” tasks such as transferring data from memory to storage devices.

Device Drivers

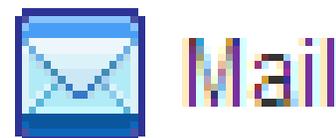
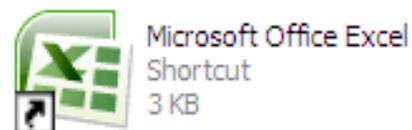
Device drivers contain the instructions which tell the computer how to interact with that particular device.

Many device drivers come preinstalled on the operating system but devices such as printers and scanners come with a device driver to install on the computer if necessary.



Application Software

Software the computer uses to carry out a specific task as specified by the user.



Word Processing

Software that enables the user to enter, edit, format and print documents containing primarily, but not limited to text.



Spreadsheets

Software that enables the user to enter, edit, format, print, sort and calculate primarily numeric data.



Web Browsers

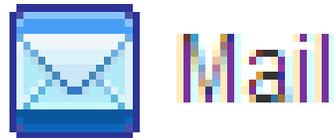
Software that enables the user to access, retrieve and view documents and other resources on the Internet.



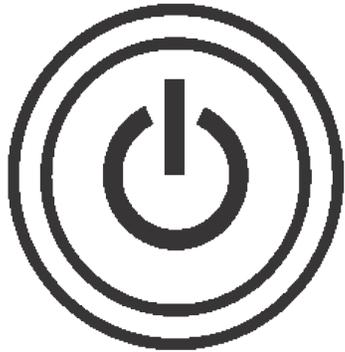
Chrome

Email

Software that enables the user to send and receive electronic mail, commonly known as email over the internet.



Turn on the Computers



User Name

Type in if necessary

XXXXXXXX

Password

Type the following password:

XXXXXXXX

The Desktop

Icons
and/or
Shortcuts



Start
Button



Quick
Launch



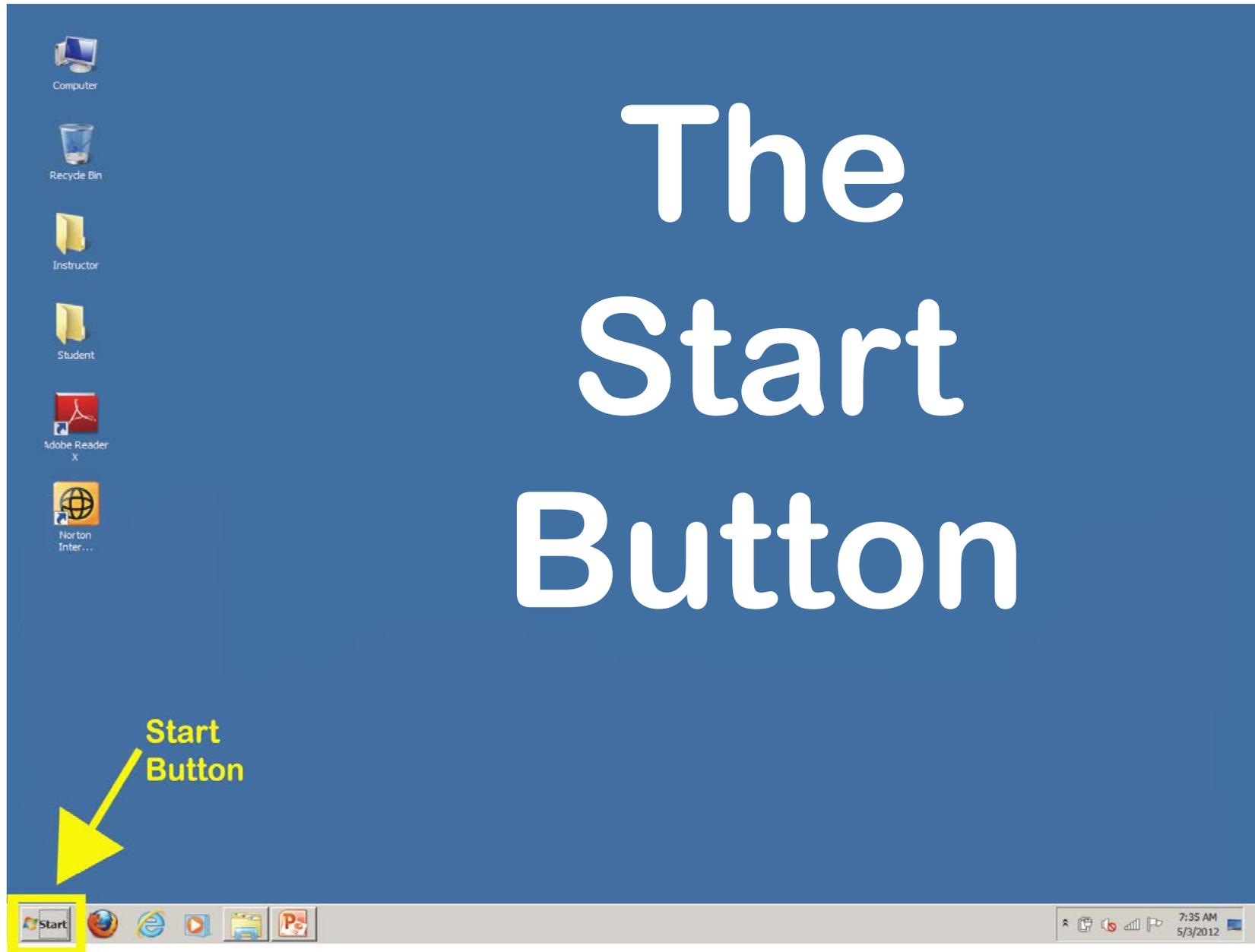
Notification
or Status Bar



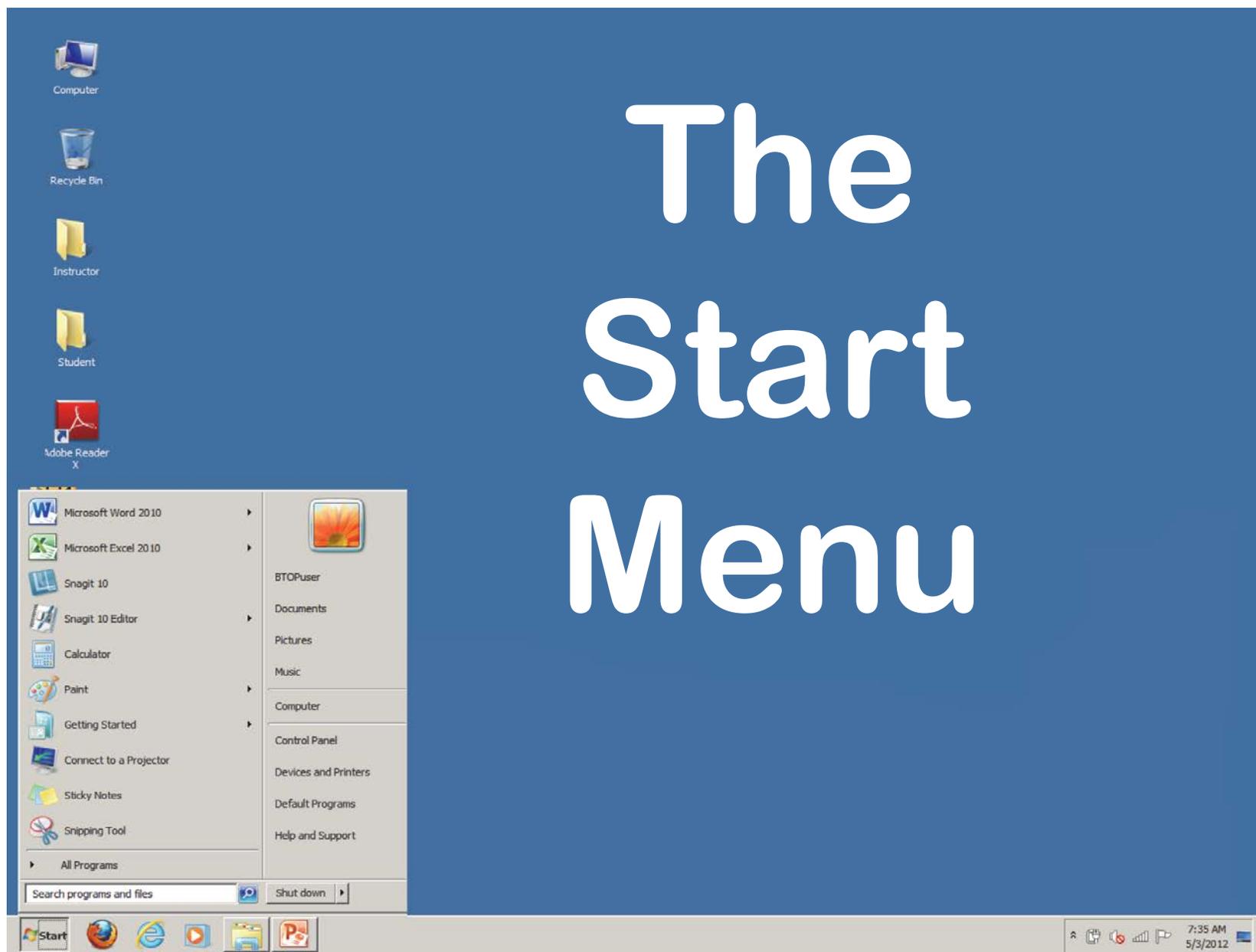
Task Bar



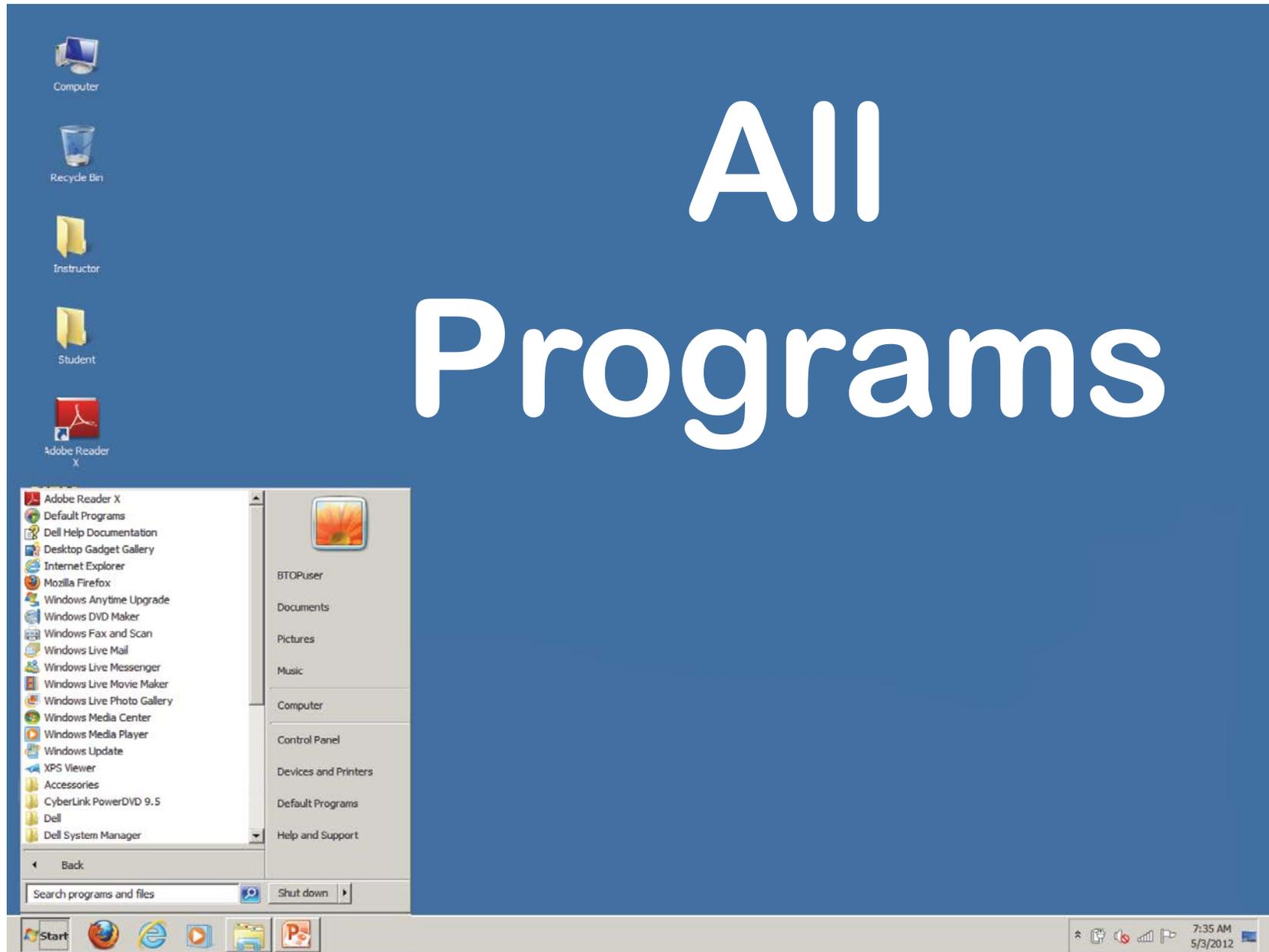
The Start Button



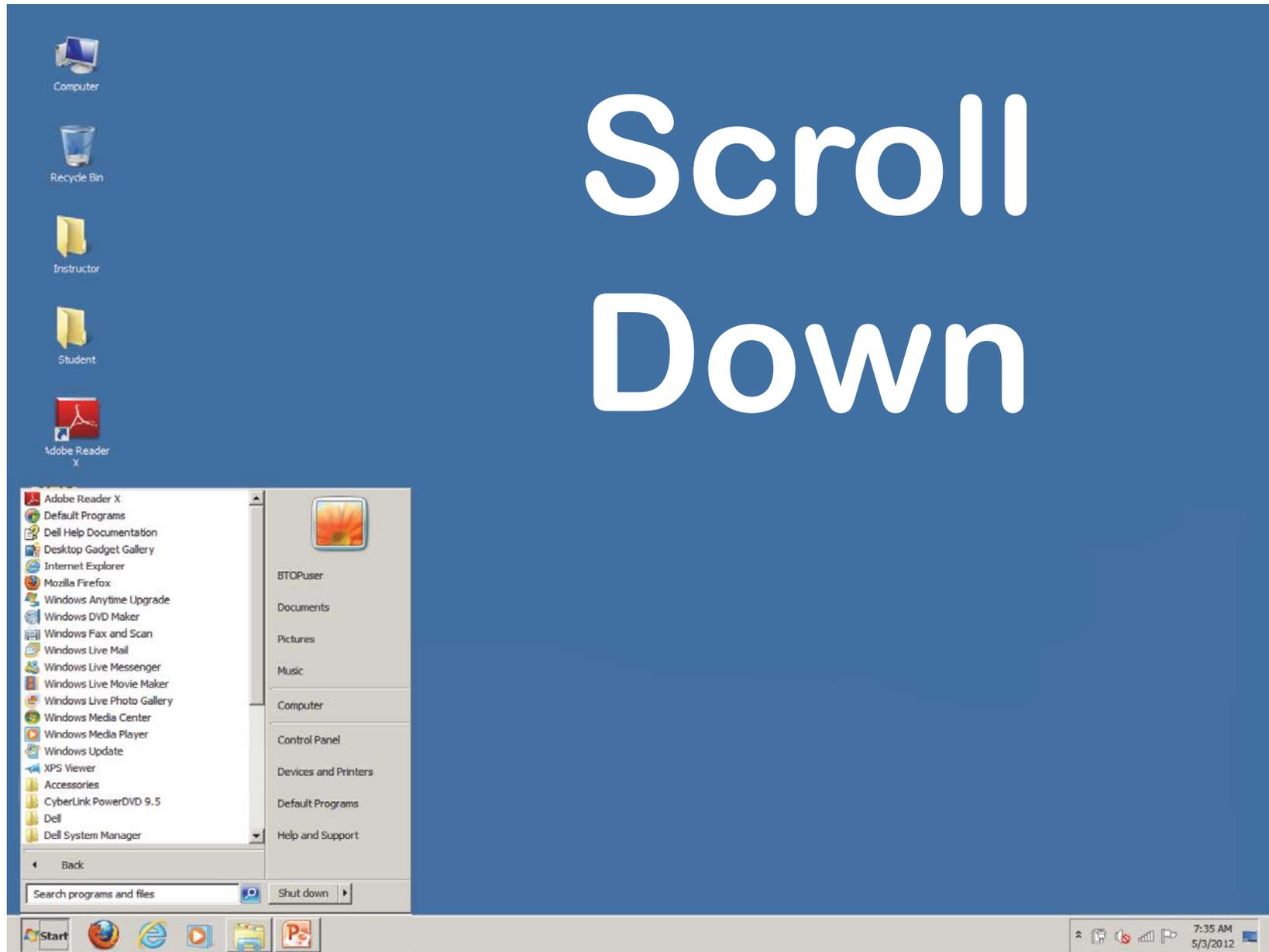
The Start Menu



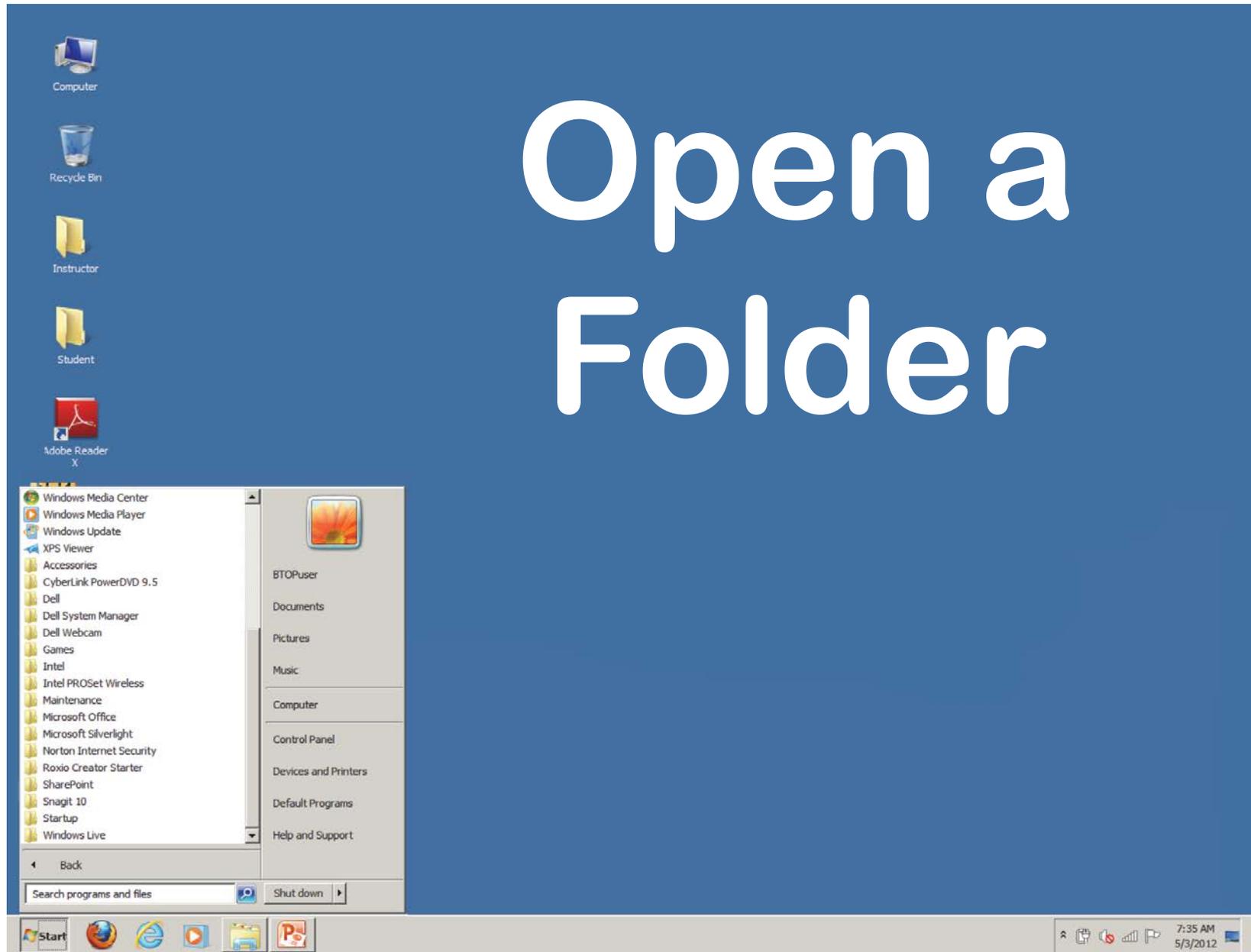
All Programs



Scroll Down



Open a Folder



Open a Program

