Jamaica Sustainable Development Networking Programme The Liguanea Cybercentre

Introduction to Computers

Computer Basics

A computer is an electronic device that can accept input, process it according to a set of instructions, store the instructions and the results of the processing, and produce results as output.

All computers require the following components:

<u>Central Processing Unit (CPU)</u> - the main computing part of the computer, also called the processor.

Three typical components of the CPU:

- Arithmetic Logic Unit (ALU) performs all arithmetic computations, such as addition and multiplication, and all comparisons.
- Control Unit extracts instructions from memory and executes them, calling ALU if necessary.
- Registers which are a high-speed memory.

<u>Memory</u> is the internal storage areas in the computer. It is used to store programs at their run time. The size of the memory determines how much data can be processed.

<u>Output device</u> is any device that process the output from the computer (for example, screen or printer).

Input device is any device that supplies data into the computer (for example, keyboard, mouse).

Hard Disk Drives

Your hard disk drive is your computer's main "long term memory"--it holds your operating system, programs and data files. Hard drives are the fastest form of long-term storage your computer uses. They have currently increased in size and

speed to values unheard of just a few years ago. Hard disks are (usually) permanent--they stay in one place inside your computer and cannot be removed the way floppy disks or CD-ROMs can.

Floppy Disk Drives

Floppy disks are your computer's smallest and slowest form of long-term storage. Floppy disks provide a simple, convenient way to transfer information, install new software, and backup small amounts of files. Floppy disks are not as important a part of the computer as they were many years ago. This is largely because the floppy disk still holds the same amount it did five years ago, while most users' needs for storage, software installation and backup, have increased ten-fold or more in that period of time. One great advantage floppy drives have is universality: virtually 100% of PCs made in the last 10 years use a standard 1.44 MB floppy drive.

CD-ROM Drives

CD-ROM stands for Compact Disk - Read Only Memory. As the name implies, CD-ROM drives use compact disks, similar to the ones that hold music, to hold computer information. And also as the name implies, they are a read-only medium. You can read information from them but not write to them (except for some special exceptions). CD-ROMs are currently the most popular way that computer companies distribute applications and games, and are ideal for multimedia information like videos, music and large graphics files.



<u>Hardware</u>

The computer includes a variety of hardware components, that is, parts of the computer that you can actually touch, e.g. keyboard, monitor, mouse, system unit:

- <u>System Unit</u> is the most important hardware component of the computer. It houses the Central Processing Unit (CPU), which is the brain of the computer.
- Monitor: The Monitor looks like a television. Text and images generated by the computer are displayed on its screen.
- **Keyboard:** An input device used to communicate with the computer. It is used to type instructions and information into the computer. The main typing area resembles the keys on a standard typewriter.
- Mouse: A pointing device used to give instructions to the computer. You use the mouse to perform four basic actions: point, click, double click and drag. Until the invention of graphical operating systems, the keyboard was the only way that most people input information into their PCs. Mice are used in graphical environments to let users provide simple "point and click"

instructions to the computer. The main advantage of a mouse over the keyboard is simplicity. There are also some operations that are much easier to perform with a mouse than a keyboard (such as picking an item on a screen or choosing from a list of options).

• **<u>Printer</u>**: produces a paper copy of the information displayed on your screen. This is referred to as "Hard Copy".

<u>Software</u>

Computer programs written to direct the computer to perform certain functions are called software. Unlike hardware, we cannot physically touch them hence the name software. Two categories of software are:

- System software, which enable the computer to manage its own operations.
- Application software programs written to carry out specific tasks on your computer. Some examples of application software are WordPerfect, Microsoft Word, Solitaire, Microsoft Excel, and any other programs on your computer.

Introduction To Word Processing

WHAT IS WORD PROCESSING

Word Processing is the use of electronic equipment to type, change and permanently store information on the computer, for final printing and future use. More specifically, information is entered into the computer using a typewriter-like keyboard. As you type, the words are displayed on a TV-like screen (rather than a piece of paper). Special electronics allow you to change, or edit the information on the screen and then store it on a disk or diskette. The information can then be printed.

A word processing system can be defined as a program or collection of programs designed to allow you to enter and edit textual matter, then store it temporarily within the memory of the computer (RAM) and permanently in some external media (e.g. disks) for producing a printed document.

WordPerfect and **Microsoft Word** are two of the most popular word processing packages in the micro industry. Menus make it particularly easy for beginners to use these applications.

Once you have typed your document you can check it against a computer dictionary to ensure that you have no spelling or typographical errors.

The advantages over traditional typewriting in the speed and accuracy of entry, ease of editing, reproduction and reorganization of written material are enormous. With a word processor, you will be able to make virtually any change simply and quickly, eliminating the need to retype entire documents or even pages. You retype only those portions of text that must be changed. Corrections leave no trace. Correction fluid (white-out) is totally unnecessary. With a word processor you may add, delete, insert, copy or move text with a few simple keystrokes or mouse clicks.

The parts of theWindow



HOW TO DO CERTAIN TASKS IN WORD 2000

To Block Text

Place your cursor at the beginning of the text you want to block

• Use the mouse to drag the block over the text.

OR

• Hold down the shift key and press the cursor keys (the arrow keys) until the text is covered or highlighted.

Apply bold formatting to text or numbers

- Select (block) the text you want to make bold.
- Click **Bold** on the toolbar.

Center text

- Select (**block**) the text you want to center.
- Click **Center** on the toolbar.

Justify text

- **Block** the text you want to justify.
- Click **Justify** on the toolbar.

Adding Bullets And Numbering

A **bulleted** or **numbered** list is a special type of list that is formatted with dots (bullets) or numbers. Bulleted lists have a bullet, or large dot, at the left margin, and numbered lists are numbered sequentially.

Bulleted and numbered lists can be created in one of two ways. You can create a bulleted or numbered list by clicking the **Bullets** or **Numbering** button on the Formatting toolbar. Alternatively, you can enter text, again without bullets or numbers by clicking on the icon to turn off bullets or numbering.

To change the way the bullet looks:

- **Block** the bulleted list
- From the format menu select bullets and numbering
- Choose the bullet you want from the examples in the dialog box by clicking on it.
- Click OK

Open a document on your hard disk

- On the Menu Bar Click File then click Open .
- In the Look in box, click the drive, that contains the document e.g. 3½ Floppy (A).
- Click on the document you want to open.
- Then click **Open**

Create a new document

• On the **Toolbar**, click **New**.

To Move or Copy Text

To Move Text (Cut and Paste)

- **Block** the text you want to move
- Click on the **Cut icon (scissors)** on the toolbar
- **Move** the cursor to the position where you want the text to go
- Then click on **Paste** on the toolbar

To Copy Text (Copy and Paste)

- **Block** the text you want to copy
- Click on the **Copy icon** on the toolbar
- **Move** the cursor to the position where you want to copy the text to
- Then click on **Paste** on the toolbar

Save a document

You can save the document you are working on, whether it is new or existed previously.

Save a document for the first time

- 1 Click on **File**
- 2 Click on Save As
- 3 To save the document in a different folder, e.g. on the **Floppy Diskette** click the arrow to the right of the **Save in** box and click on **31**/₂ **Floppy (A)** in the list.
- 4 In the File name box, type a name for the document.
- 5 Click **Save**.

Save an existing document

• Click the **Save** icon on the toolbar.

Close a document

• Click on File menu, click Close.

Tables

Use tables to organize information and create interesting page layouts with sideby-side columns of text:

To create a table

- Click **Table** on the Menu Bar
- Click on **Insert Table**
- Select the number of columns and number of rows you want in the table
- Click on **OK**

Add rows to a table

- Place your cursor in table
- Click on **Table** on the menu bar
- Click on **Insert Rows (Above or Below)** depending on where you want the row to be inserted

Merge cells into one cell in a table

You can combine two or more cells in the same row into a single cell. For example, you can merge several cells horizontally to create a table heading that spans several columns.

- Block the row you want to merge
- Click on **Tables** in the Menu Bar
- Then click Merge Cells.

Remove a border from a table

- To remove all borders from a table, **block** the table.
- Click on the **arrow** to the right of the Borders and Shading icon
- Then click the **No Borders** tab.

To Check Spelling and Grammar

Before printing your document you should check the spelling and grammar.

- Click on **Tools** on the menu bar
- Then click on **Spelling and Grammar**

Preview a document before printing

It is a good idea to preview your document before sending it to the printer. This saves paper and you will be able to make adjustments to the document before printing.

- To display each page as it will look when printed, click on File
- Click on **Print Preview**.

OR

• Click on the **Print Preview** icon on the toolbar

Print a document

To print the document:

• Click the **Print** icon on the toolbar.

OR

- Click on File
- Click on **Print**
- Select the number of copies you want to print
- Then click on **OK**

Page Numbering

To number the pages in a document

- Click on **Insert** on the menu bar
- Click on page numbers
- Select where you want the page numbers to appear on the pages
- Click on **OK**

To Shut down the Computer

- Click on the Start button on the task bar
- Click on shut down
- Then click on OK

After computer shuts down you turn off the monitor (screen)

The Internet



What is the Internet?

The Internet is a huge **NETWORK OF COMPUTERS** that **communicate** with each other electronically. You have a network of computers anytime you have 2 or more computers connected to each other. Everytime you get on the internet you are connecting to a network of thousands and thousands of computers connected to each other worldwide. The network connects people's computers together, at work and at home, all over the world. Right now, there are approximately 50 million people that have access to the Internet and that includes you.

The World Wide Web



What Is The World Wide Web?

The **World Wide Web** (www) is the fastest-growing and most user-friendly section of the Internet that lets you access text, graphics, sound, and even video. Many groups, companies, and individuals provide "pages" of free information on the WWW. To put it simply, the **WORLD WIDE WEB** is the picture part of the information available across the Internet. By using something called "**HYPERTEXT**" (the words that you see underlined or highlighted) you can navigate yourself around from place to place. "HYPERTEXT" allows you to "**hyperlink**" or jump from one page to another. By "hyperlinking" you are accessing pages all over the world. Best of all, even if you hyperlink to China it doesn't cost any more money!

You can think of the World Wide Web as a great big library of books. With **WEB SITES** as the books in the library and **WEB PAGES** being the individual pages in the books. So when you think of a website like JSDNP's, you can think of it as a collection of web pages that belong together in the JSDNP website book. The very first page of any website is called the "**HOMEPAGE**". This page usually gives you a pretty good idea of what you will be able to find if you decide to continue looking or "**SURFING**" through that website. It is similar to a **TABLE OF CONTENTS** in a book.

What is a Browser?

A browser is a piece of software that allows us to see the internet through a window on our computer screens. Your browser allows you see all the

beautiful images, text, sounds, movies and 3D worlds on the Internet. The most popular browsers being use today are **Internet Explorer** and **Netscape Navigator**

What is a URL?

Each and every page in a website, including the home page, has **it's very own address**, called a **Universal Resource Locater**, better known as a **URL**. (The URL for JSDNP's WEBSITE is http://www.jsdnp.org.jm). You have probably begun to see a lot of URLs in the past year or so on TV and in magazines. Knowing a URL for a particular page will always allow you to find that page without searching for it first. You can give a URL to your friend across the street or across the ocean, and they both should be able to find the same information that you did just by knowing a website URL. It is just like a postal address or telephone number. You can type a URL into the white space or "LOCATION FIELD" at the top of your browser. Then hit your return key and you will be transferred to that website page. Make sure you type it in exactly as you see it without any spaces and be sure to include the dots (.) and the slash (/) at the correct place. Browsers are very sensitive, and **like phone numbers, if you do not type in the URL correctly, it will not work.**



Electronic Mail (E-mail)

Electronic mail (E-mail). Permits you to send and receive messages through a computer network. To use electronic mail, you need a **computer**, **modem** or **network connection**, and an **e-mail address**. E-mail is convenient because all messages are sent and received immediately, even over long distances.

Like real mail, sending email requires that you know the address of the individual or company you wish to send email to. Unlike real mail, an email address is fairly simple, composed of only two parts, **someone@somewhere**.

The first part of the email address (someone) is the user's account name that you are sending the email to. For example Jane Smith has an account on her service provider (e.g. yahoo.com). When the account was created, the service provider issued her a user name, it could have been; **jsmith**

But knowing Jane's user name is only one part of what you need for the address. You also need to know the name of the **server** (somewhere). In Jane's case she accesses e-mails via a server called **yahoo.com**. Since we can't just merge the two pieces together, we need something to keep them apart, we use the "@" character to separate the user name from the server name. Hence Jane's address now becomes;

jsmith@yahoo.com

Server names can be longer and more complex, such as westman.freenet.mb.ca, but basically it's safe to say that **anything to the right** of the "at" sign is the server name and everything to the left is the user name.