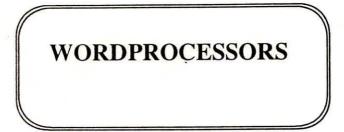
COMPUTER COURSE FOR DATABASE MANAGERS

ROORKEE

JULY 30 - AUG 9 1996

(UNDER WORLD BANK AIDED HYDROLOGY PROJECT)

MODULE - 4



by

M.K.GOYAL

NATIONAL INSTITUTE OF HYDROLOGY ROORKEE - 247 667 (U.P.)

WORDPROCESSORS

1.0 INTRODUCTION

Word processors are the software that transform a computer screen into *sheets* of papers to be electronically written on. A word processor provides a quick and easy way to create and revise documents. These screen-based systems enable a user to create, edit and print letters, memos, manuscripts, and reports faster and more accurately than with a typewriter. These software make the processing of text more effective and efficient. For letters and reports prepared in multiple drafts, the ability to electronically "cut and paste" eliminates the need for retyping the complete document. In addition, documents can be stored in files and retrieved as needed. For mass mailing, form letters can be merged with names from mailing lists to personalize correspondence. Typically, these packages have the following capabilities:

- Text can be easily written onto an electronic document.
- Any part of the document, whether a letter, word, sentence, paragraph, page, or group of pages, can be easily changed or moved elsewhere in the same or another document.
- A document's format, such as margins, spacing, page numbers, and headings can be set automatically and easily adjusted.
- The document can be created in the desired font and a document can have more than one font.
- Text formatting capabilities enable a user to easily specify and modify the manner in which text is to be presented. Common formatting actions include tab setting to indent lines and columns, paragraph justification to obtain fixed paragraph borders, and text highlighting, such as bold, underline, italics etc.
- Graphical images can be created as a part of the document. Also, graphic images created by other software can be imported in the document.
- Most word processors have capability to handle footnotes, page headers and footers, superscripts, and subscripts, and to automatically produce a table of contents or an index.
- Some word processors are capable of spreadsheet functions and mathematical operations.
- Spell checkers make use of online dictionaries to locate spelling errors. Thesaurus support provides an online thesaurus. Style checkers analyze a document to locate and correct grammar or punctuation errors and suggest ways of improving writing style.
- Mail-merge programs link the document with address list to "mass mail" letters.
- A partially completed document can be stored on a floppy or hard disk to be retrieved later for completion. Once completed, a document can be stored on a floppy or hard disk and then retrieved later for printing or revisions.
- The complete document, or just a portion of it, can be retrieved from secondary storage and inserted anywhere in another document.

The main advantage of a word processor is that the matter once entered in the computer can be used in more than one document, and can be easily updated. Moreover, after minor changes, the entire document need not be re-checked again. Also a report can be quickly condensed to prepare a paper and the paper can be

quickly edited to prepare transparencies for presentation. The documents prepared at one branch of an office can be (electronically) communicated to other branch where it can be suitably edited and printed.

Mathematical equations are an integral part of a scientific paper or report. These equations can be easily written using equation handling capabilities of a word processor.

Some popular word processing software include WordStar, WordPerfect, MS Word and ChiWriter. The present discussion describes some details of the WordPerfect. For further details, one may refer to the reference manual of the software.

2.0 WORDPERFECT

The WordPerfect is a popular word processing software developed by WordPerfect Corporation. Some of the commands and feature of version 6.0 for DOS are described below. When the system is invoked, the welcome screen appears on the monitor for a few moments after which, a new document window is opened. This window can be thought of as a new sheet of paper where margins, spacing and tabs have been set according to the default settings. The bottommost line is the Status Line which shows the name of the document, if any, and the document number, page, vertical and horizontal position of the cursor in the document. The Menu Bar shows various commands which can be invoked by pressing Alt key and the underlined letter. The desired function can be carried out either by the menu commands or through shortcut keys. In some instances, a dialogue box is opened after pressing command keys. The box is used to pass additional information to the WordPerfect to execute that command. To return to the document without executing a command, one can press the Esc key on keyboard or Cancel feature in the dialogue box. If a mouse has been installed, then by clicking the pointer on a particular item, the corresponding menu is opened. For explaining various first hand facilities of the WordPerfect, the different menus are briefly discussed in the following.

2.1 FILE Menu

The File menu is evoked by pressing the *Alt* and *F* keys together and it opens a dialogue box. Using this menu, the user can **Open** a new document, can **Save** a document, can call the **File-Manager** to display a list of files, can customize the **Set Up**, can **Print** a document or **Exit** from WordPerfect. The File-Manager can also do various other file management options such as *Copying*, *Printing*, *Deleting or Moving* a document.

The document to be opened need not necessarily be a WordPerfect document. The WordPerfect automatically identifies the format of the input document and can **Convert** from various input formats to the WordPerfect format. A user can also convert WordPerfect files into other formats. Note that while converting a file, it may not be possible to correctly convert some symbols, equations or tables etc.

This menu has a **Master Document** feature also. A master document is a WordPerfect document like other documents except that it also contains codes linking it to other documents. When a master document is expanded, those other

subdocuments are retrieved into the master document. Master document feature is used to manage large document instead of maintaining one large file. It is easy to create several subdocuments and one master document. **Compare Document** feature is used to contrast the text in the current document with the text in a different version of the document. WordPerfect indicates deleted text with strikeout text while added text is represented by redlined text. Moved text is indicated by two messages.

WordPerfect can automatically make a backup copy of the current document to protect losing work because of power or equipment failure. The user can specify time interval for timed backup or turn off *Timed Document* Backup with the help of *Environment* option in the **Setup** feature. The *Backup*, *Beep Language*, *Hyphenation* etc. options can also be changed by the Environment dialogue box. The change in the Environment dialogue box remains in effect until the user changes them again.

It is necessary to select and install a printer to print from WordPerfect. Choose the **Print** feature from the menu. The print dialogue box opens and the print range and the number of copies can be chosen. The matter to be printed can also be previewed before it is sent for printing. The matter is displayed on the screen exactly as it will be printed and this usually saves time and avoids wasteful printing. The printing matter can also be controlled after sending to the printer with the help of *Control Print* option. The control print dialogue box displays the print queue of all the print jobs which have been sent to the printer. A print job can be cancelled with the help of *Cancel Job* option.

2.2 EDIT Menu

The Edit menu is evoked by pressing the *Alt* and *E* keys together and it opens a dialogue box. Using this menu, the user can perform various **Block** operations, can **Undo** the changes or **Undelete** a set deleted by mistake, can perform **Search and Replace** operations and can **Go To** desired location in the document.

A **Block** can be selected by pressing the *Alt* and *F4* keys and then by the arrow keys. Various block options include *Cut*, *Paste*, *Copy*, *Case change*, *Appending to a file* etc. Blocks can be selected in the column mode also.

By pressing the *Ctrl* and *Home* keys together, a dialog box appears and then by entering the page number, the cursor moves to the desired page number of the document.

The user can **Search and Replace** word, phrase or codes in the document. To search word & codes, the cursor is placed at a place from where the user wants to begin. Press *F2* and then type the text and select any of the desired options from the search dialogue box. Next choose *Search* option to begin the search. Similarly, *Alt F2* keys open the *Search and Replace* dialog box using which replacement for a particular search can be made.

This menu also provides **Bookmark** features that are used to mark a location in the document so as to return to that location quickly. A document can have several bookmarks, with each bookmark with a unique name. Using **Undo**, last editing actions like deleting a word or sorting, changing font, changing margins etc. can be reversed. Undo feature slow WordPerfect operations and consumes memory and disk space. To avoid this, Undo can be turned off. Using the **Undelete** feature of this menu, any or all of the last three deletions can be restored. Unlike Undelete, which restores most recently deleted text at the cursor, Undo restores text in its original location.

2.3 VIEW Menu

The View menu is evoked by pressing the *Alt* and *V*keys together and it opens a dialogue box. Using this menu, the user can set various viewing options. These include selecting **Display Mode**, **Button Bar**, **Outline Bar**, **Scroll Bar**, **Pull-Down Menus** and the **Ribbon** etc. In addition, the **Screen Setup** and the **Reveal Code** window set up can be defined.

Three display modes are available in WordPerfect: **Text** mode, **Graphic** Mode and **Page** mode. The user can switch between display modes during editing of any document. Text mode display the document in monospaced characters, like the screen characters. In text mode, the contents of graphics and equation boxes are not displayed on screen and user cannot use the mouse to size and move graphics. The graphic mode displays the document close to the way it will look when it prints. Page mode displays the characters in the document like Graphic Mode. However, while Graphic Mode shows only the body of the document, Page Mode displays such things as document headers, footers, foot notes and label arrangement.

Reveal Codes are used to view the formatting codes in the document. A code is inserted in the document nearly every time a WordPerfect feature is used. Codes are not visible in the normal document window. Since the placement of most codes is essential, it is sometimes needed to observe their exact location. Reveal Codes divides the document window in two parts. The top part is the normal editing area while the lower part displays the same text accompanied by codes.

The user can use **Ribbon** feature to quickly access a variety of features that affect the size and appearance of text in the document. The ribbon can be accessed only with a mouse. Any setting which is done by Ribbon is in effect for the current document only. With the help of this option it is easy to change *Display Size*, *Paragraph Style*, *Number of Columns, Alignment, Font Type* as well as *Point Size* in a text.

Outline bar is used to organize text using numbers, bullets, or headings. The items on the **Pull-Down Menus** perform different kinds of action. A menu item followed by three dots (...) opens a dialog box, followed by a triangle () opens another menu while an item followed by no marking starts the feature.

Use of **Button Bar** gives quick access to frequently used menu items, features, macros and other Button Bars. Seven button bars can be selected or created from this menu. A mouse is necessary for choosing the buttons. In the Graphics and Page modes, **Zoom** can be used to specify the size of on-screen text. Zoom percentage can be specified using this option. **Scroll Bars** are used to move the cursor to different parts of the document window or to move through a list of items in a dialog box.

Screen Setup is used to change the on-screen Appearance of Menus, Windows, and Codes and to specify the Default Zoom Percentage. The changes made in the Screen Setup dialog box remain in effect until they are changed again. The Pull-Down Menus, Outline Bar, Ribbon, and Button Bar can be turned on and off. Hard Return Display characters can be specified and various Window Options, Reveal Codes Options and Zoom Options can be defined using Screen Setup.

2.4 LAYOUT Menu

The Layout menu is evoked by pressing the *Alt* and *L* keys together and it opens a dialogue box. Using this menu, the user can set various layout options. These include selecting formats for **Character**, **Line**, **Page** and **Document**. In addition, it can generate **Tables** and **Columns**, can specify **Margins**, **Justification**, **Tab** settings and **Alignment**, and can set **Footnotes**, **Endnotes** and **Comments** etc.

The **Character** format include *Decimal Character, Thousands Separator, Dot* Leader Character etc. The **Line** format include specifying *Tab Settings, Justification,* Line Spacing, Line Numbering, Line Height etc. The **Page** format includes specifying Page Numbering, Page Centering, Page Sizing, Double Side Printing, Page Bordering, and Suppressing etc.

Using **Columns**, the text can be vertically divided on a page. As many as 24 columns can be specified. **Tables** can be used to organize information into columns and rows without using tab setting. The user can also create spreadsheets by the Table command. In WordPerfect, the user can insert formulas & functions into table directly by the use of *Table Formula* dialogue box.

Envelop feature is used to create an envelop using the mailing address in the document or by specifying the return and mailing addresses. **Merge** facility is used to generate multiple envelops from a list of addresses.

A document margin is the white space between the text and the edge of a printed page. Using the **Margin** feature, it is possible to change the *Left, Right, Top and Bottom Margins*. The default margin settings are 1" on all sides. Using **Justification**, it is possible to align the text on the right or left margins, along both margins, or to center it between the margins. **Tabs** move the text an exact amount of space. Tabs, rather than spaces, are used to align columns of information. WP contains four types of Tabs (Left, Right, Center and Decimal). Tab settings display as triangles on the bar at the top of Reveal Codes. The **Alignment** option contains features like *Centering* a line, *Flush Right* to align a line with the right margin, forced closing of a page by *Hard Page* etc.

Headers and **Footers** are used to print information such as a chapter title, a date, a person's name, or a company name at the top or bottom of each page or on alternate pages. Two different headers and footers can also be used. Headers print just below the top margin while footers print just above the bottom margin. A header or footer appears on the specified pages (all pages, odd pages, or even pages). A **Watermark** is used to add a drawing, logo, clip art image, or headline sized text behind the printed document text. Water marks function similarly to Headers and Footers. Two water marks can also be used at any place in the document.

Footnotes and Endnotes are used to list sources or provide detailed information about items in the text. Footnotes are printed at the bottom of a page while Endnotes are usually printed at the end of a document. **Comments** are used to add comments to the text. Comments appear on the screen but are not printed as part of the document. Comments are used to note scheduling changes to make, to record upcoming announcements, or to store information. The Comments feature can also be used to pool comments or suggestions from several people who are reviewing or editing the same document.

2.5 TOOLS Menu

The Tools menu is evoked by pressing the *Alt* and *T*keys together and it opens a dialogue box. This menu contains Writing Tools, Macro, Merge and Sort facilities. In addition, it can generate Index, Table of Contents, Cross-references and Table of Authorities etc. Maths and Spreadsheet functions can also be performed.

Writing Tools contains various options: Speller, Thesaurus, Grammatik and Document Information. The Speller checks the document for misspelled words, duplicate words, and certain type of capitalization errors. When the speller finds a misspelled word, it is highlighted in the text of the document and various options are suggested. The user can select any of these options to replace the misspelled word, or can skip/edit the word, or can add the word to a personal dictionary. Thesaurus is used to search for synonyms or antonyms of words. Grammatik is used to check the documents for spelling, grammar, and punctuation errors. Using the Document Information, statistics regarding characters, words, lines, sentences, paragraphs and pages in the document can be quickly acquired. It also displays information about word length, words per sentence and the size of the document.

Macros are used to record commands that perform a task automatically. The macro language is a command-based language. The WordPerfect macro languages also include programming commands and operators such as AND, OR, LABEL & CHAR. Outline is used to organize text using numbers, bullets, or headings. Merge feature is used to merge mass product, letters, envelops, mailing labels, contracts, phone lists, memos or other documents. With the help of this utility we can write the same letter to a number of persons without typing the original letter more than once. To do so, two files are created one of them is a form file containing form letter and another is data file containing names and addresses of the person. Then the two files are merged to create a third file, which contains all the merged letters, or the new document can be directly sent to the printer. Sort feature is used for arranging text alphabetically or numerically or to extract specific information from a list. The user can sort paragraphs, table rows, parallel columns or merge data file records. For sorting, first open the document containing the information. To sort a table or parallel column, the cursor is placed inside the table or parallel column. Date feature is used to place the current date and time in the document and to change the date format. A date code is updated to reflect the current date each time the document is retrieved or printed.

Index is used to create and maintain an index for a document. An index can include both headings and subheadings. Creating an index involves three steps: marking the text to be included in index, defining the output and then generating the index. **Table of Contents** is used to create and maintain a table of contents for the

document. It can have upto five levels of heading and subheadings and its creation involves the same three steps as mentioned under Index. List is used to create lists of items such as figures, illustrations, and tables in a document. Generate is used to update table of contents, lists, and indexes in the document.

In WordPerfect to perform basic math calculations, **Math** feature is used. **Table** feature is used when the information is divided into cells, rows and columns. Math feature is used for calculation of financial statements such as income statements and balance sheet. **Spreadsheet Import and Link** feature is used to copy information from a spreadsheet file into a document. Importing a spreadsheet copies information from the spreadsheet file. Linking a spreadsheet updates the spreadsheet information in the document to keep it current with any changes.

Hypertext is used to link parts of the current document to other parts of the document, to other documents, or to a macro.

2.6 FONT Menu

The Font menu is evoked by pressing the *Alt* and *O* keys together and it opens a dialogue box. Using this menu, the user can set various font options like selecting the Font Type and Size, Subscript and Superscript etc. It also includes features like Bold, Underline, Italics, Outline, Shadow, Redline and Strikeout for a portion of the text. In addition, special WP Characters can also be inserted.

The **Font** is the basic type face in which the document is printed. The font in any documents consists of three elements: *Type Face* (such as Times Roman), *Appearance* (such as Bold or Italic) and *Size* (such as 10 CPI or 10 Pt). The user can see a list of available fonts to select the font in the dialogue box. There are two ways to change the font of existing text. The user can insert a font code before the text or can block the text and then choose a font.

In addition to the characters and symbols on the keyboard, WP provides more than 1500 international characters and symbols: ASCII, math, scientific, typographical symbols etc. that can be inserted anywhere in a document. These are grouped into fifteen different types of sets.

2.7 GRAPHICS Menu

The Graphics menu is evoked by pressing the *Alt* and *G* keys together and it opens a dialogue box. Using this menu, the user can **Retrieve an Image**, can **Draw Graphics Boxes** and **Lines**, can **Draw Lines** and **Borders** etc.

Graphics is used to import *Clip Art Images, Logos, Charts, or Drawings* into a document. It can also add *Tables, Quotes, Text, Sidebars, or Equations.* There are two ways to add a graphic to a document. The first method is to create a graphics box and then put text, image, a chart, an equation etc. inside the box. The second method is to retrieve a clip art image, a chart, or a drawing directly into a document. There are eight different graphics box styles with different options. WordPerfect has a number of in-built images that can be retrieved using the Retrieve Image feature.

The WordPerfect has a powerful **Equation Editor** which can be used to create or edit mathematical equations. This editor is versatile enough to create and edit the equations and contains the feature like subscript's, superscripts, various symbols, matrices etc. The user types the equation using the available commands and can view the equation as it appears in the document through a view box.

Image editor is used for retrieving a bit map image or vector image into a graphic box. We can use the image editor to crop, rotate, scale or adjust the color of the image and can also change the fill type of a vector image.

Using **Line Draw** feature, it is possible to draw simple boxes, graphs, and borders. Using the arrow keys, lines can be drawn in any character in an empty space or around and over existing text. Using **Borders** feature, a border can be added around a paragraph, page or column. Using the Fill Style feature, the appearance of each graphics box can be changed.

2.8 WINDOW Menu

The Window menu is evoked by pressing the **A**t and **W** keys together and it opens a dialogue box. In the WordPerfect, up to nine documents can be opened at a time. One can move the text from one document to the other or can switch from one window to the other. More than one documents can be viewed at a time by dividing the screens in windows.

An area on the screen is called a document window. The frame is the border around the window. A **Framed** window can be maximized, minimized, dragged or closed. To move the window with a frame, drag the title bar at the top of window. When more than one window is open, **Cascade** feature can be used to arrange them. Cascaded windows overlap so that the title bar of each window is displayed. If more than one window is required to be displayed, **Tile** feature can be used to arrange the windows. Tile windows are arranged with no overlapping. It is possible to switch between displayed or undisplayed windows by clicking the mouse.

2.9 HELP Menu

A comprehensive on-line help is available for the various WordPerfect commands. The help can be obtained by pressing the *F1* key or using the menu command Help. The Help menu has several features like Contents, Index, How Do I, Coaches, Macros, Tutorials, and WP Information.

To get the basic information about word processing, **Tutorial** feature of Help menu is used. Using the **Contents** option, a list of often-used Help categories can be obtained. **Coaches** is an interactive tutorial that can guide through simple and complex tasks.